South Plains College

Health and Safety Plan

Revised January, 2013

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SOUTH PLAINS COLLEGE
SAFETY AND HEALTH PLAN

(Revised 1/11/2013)

INTRODUCTION

The South Plains College Safety and Health Plan outlines general policies and procedures with which all employees should be familiar. In the event of an emergency, it may be too late for this plan to be consulted. All employees are encouraged to review this plan and be familiar with its content. This plan is developed and maintained by the Safety and Health Committee. The committee welcomes comments and suggestions from all parties to ensure that college operations provide for a safe and healthful environment for work and study.

South Plains College recognizes its responsibility to maintain a safe and healthful environment for employees, students and visitors. This document has been prepared under the premise set forth in the college's Statements of Institutional Commitments, which form the core beliefs of the organization.

"Commitment to a Quality Campus Environment: We recognize the importance of providing a safe, clean and accessible work and learning environment that is characterized by integrity, clear communications, an open exchange of ideas, appreciation for personal worth, involvement in decision-making and respect for all individuals."

Safety is everyone's responsibility and in most instances is rooted in one's awareness of potential hazards and common sense in responding to such hazards. The policies and procedures outlined in this plan are based upon the latest information identified by the college and do not purport to be or to include the latest or most definitive information. The college makes no such claim and offers no assurance that this is the case. This material is informational only and not contractual. Employees are responsible for keeping themselves informed and to taking necessary precautions for their own safety and the safety of others.

SOUTH PLAINS COLLEGE
SAFETY AND HEALTH PLAN POLICY STATEMENT

As an employee of South Plains College, you are the most valuable and important resource of this college. The college cannot perform its vital public mission for the citizens of Texas without the enthusiastic, energetic, professional, and dedicated work performed by every one of our employees.

The safety and health of all employees is a major concern. I intend to make every effort possible to provide all employees with a safe and healthy workplace. Accidents, injuries, and illnesses can cause suffering and financial loss to employees of this college and their families. A safe and healthy workplace is important for everyone and does not happen by chance. Safety is everyone's responsibility, and everyone, without exception, is personally accountable to help and support the safety and health program. Everyone is asked to cooperate with the appointed Safety and Health Committee in the implementation and continued success of the South Plains College Safety and Health Plan.

I personally am committed to this plan and will do everything I can to support, promote, and participate in a safe and healthy workplace. This commitment is also expected of every supervisor in our college. It is my intent that this institution, at a minimum, complies with all applicable risk management laws, rules, regulations, and standards; takes no shortcuts when it comes to safety and health; and, gives risk management priority consideration when it comes to making decisions. If everyone does their part, we can maintain an organizational culture that integrates safety and individual concern in our work practices and behavior whether at work or at home.

South Plains College adopts, by reference, all applicable and appropriate safety-related provisions of the *Risk Management for Texas State Agencies (RMTSA) Guidelines*, (Volume III, Workers' Compensation Exposures) as a comprehensive source for risk management programs. In addition, risk management program elements and procedures specific to our college operations are contained in the attached manual.

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President of the College

SECTION I
STANDARD OPERATIONS

1-1 Administration of Health and Safety

1-1.1 Safety and Health Committee

The Safety and Health Committee Chairperson is appointed by the President to assume the responsibilities identified in this plan and to chair and direct the activities of the Safety and Health Committee representative of the college's operations.

Membership of the Safety and Health Committee shall consist of the Dean of Students, the Associate Dean of Students, Dean of the SPC Reese Center, Director of the Plainview Center, Associate Dean of Workforce Development (ATC), Dean of Health Occupations, Dean of Academics, Dean of Technical Division, Coordinator of Student Health, Campus Police Chief, Director of Guidance and Counseling, Director of Human Resources, Director of the Physical Plant, Associate Dean of Information Technology, Associate Dean of College Relations, selected members of the faculty, selected members of the student body, and appropriate consultants as necessary.

The committee has the following tasks:

- To develop, monitor, and promote a culture of safety, environmental health and security consciousness throughout the campus.
- To conduct evaluations of campus facilities, equipment, and operations in accordance with this manual and other standardized material as prescribed.
- To provide written recommendations and suggestions for corrective action, related to safety and health, to the administration.
- To assist in the investigation of campus accidents as needed and to utilize findings for further policy and procedure modifications.
- To review and revise this manual annually.

1-1.2 Employee Responsibilities

Each supervisor is responsible for insuring that safe working conditions are provided for those employees under their supervision and for investigating reports of unsafe working conditions. Each supervisor is also responsible for knowing the safety and health guidelines, investigating accidents, reporting accidents and properly advising the administration and the Safety and Health Committee of appropriate situations. Similar responsibilities are expected of faculty members and department chairs with respect to the students they instruct and supervise in clinical, shop, laboratory and field trip settings. Similarly, supervisors and faculty should assist in maintaining and improving campus safety, health and security.

Each employee is to place safety and health requirements as first importance in the performance of their work duties for South Plains College. The protection of students, fellow employees, and the public on the college's property is a shared responsibility of every employee.
All employees are responsible for notifying their immediate supervisor of a violation or deficiency in safe and healthful working conditions and for recommending corrective

measures, if possible. Additionally, the employee's immediate supervisor is to be notified of every injury or accident regardless of how trivial such accidents may appear at that time.

1-1.3 Disciplinary Procedures for Violations

Students

Student behavior in violation of established safety policies may be considered a violation of the Student Code of Conduct. In addition, a student's grade may be downgraded as a result of the student's failure to properly observe safety procedures within the laboratory or shop. Possible sanctions and appeal procedures are set forth in the current *Student Guide.*

Employees

Employees who violate safety and health requirements may be disciplined though procedures outlined in the SPC Policy and Procedures Manual. Depending on the facts and circumstances involved in each situation, the College may choose to begin corrective action at any step up to and including immediate discharge.

The following sections of the Policy and Procedures Manual provide further information regarding this matter:

DC - Grievance Procedure
DDC - Due Process
DDD - Corrective Action
DDE - Employee Conduct and Work Rules

1-2 Inspections and Compliance Requirements

1-2.1 Annual Inspections

An annual inspection of the college's facilities and operations will be conducted under the direction of the Safety and Health Committee. Each inspection report will record pertinent safety violations, noncompliance items, and observed deficiencies. Employee(s) directly involved in the use or operation of the facilities or functions being inspected are to participate in the inspection process.

Annual audits will include an assessment of the following:

- Environmental Design
- Campus Police and Security Operations
- Emergency Management
- Information Technology Security
- Environmental Health and Safety
- Facilities
- Business Continuity
- Communications
- Residential Facilities
- Policies
- Resources

1-2.2 Reporting Non-compliance

Observed violations of safety standards, deficiencies, and noncompliance items will be reported in the Safety Concern Form (. Notification of the recorded violations and the arrangement for the accomplishment of appropriate corrective action will be given to the

Safety and Health Committee and the person in charge of the facility or function being inspected. The responsible person is to respond to the appropriate supervisory personnel indicating corrective action accomplished with regard to each reported violation. The Safety Information Form may be obtained and submitted from the Safety and Security page on MySPC.

1-2.3 Imminent Danger Action

In the event that any manipulation, process, action or condition is discovered which, in the opinion of supervisory staff, constitutes an immediate threat, the appropriate supervisory personnel may order the immediate cessation or modification of such manipulation, action, or condition.

1-2.4 Rights of Employees

Any employee who has a direct personal involvement in the facilities being inspected is encouraged to participate in the inspections, including calling possible violations to the attention of the inspector. Furthermore, any employee may report, to the appropriate supervisory personnel, any observed violations or deficiencies. An investigation of the complaint by appropriate supervisory personnel and notification of the results is to be given to the employee originating the complaint. The rights of employees will be exercised without retaliation on the part of any employee of the college.

1-3 Reporting of Accidents

1-3.1 General

All serious accidents, as defined below, will be investigated by the appropriate supervisory personnel and the findings documented as soon as practical:

- Serious injury to an employee or student.
- Serious injury caused by college operations to another party.
- Major loss of college equipment or property.
- Major loss of equipment or property belonging to another party caused by college operations.

Reports of the findings will be reviewed with the appropriate supervisory personnel and appropriate administrative staff as soon as the investigation is complete.

1-3.2 Reporting Accidents Involving SPC Employees

Any accident should be immediately investigated by the employee's supervisor. An On-The-Job Injury Report (Appendix B) should be obtained and submitted to the Human Resources Office from the Safety and Security page on MySPC. Upon learning of a serious accident involving employees or equipment, an employee should notify the college's Vice Presidents and appropriate supervisory personnel immediately. The Vice President will inform the Office of College Relations and the President's Office. Serious accidents will be investigated by the appropriate supervisory personnel and reviewed by the appropriate Vice President.

1-3.3 Reporting Accidents Involving SPC Students

Any accident should be reported as soon as possible by the student. The student should obtain and submit the Student Accident Report Form (Appendix C) from the Safety and

Security page on MySPC. In the event the student is unable to complete the form, an SPC Faculty/Staff member knowledgeable about the situation will complete the form. The completed form will be forwarded to the Dean of Students (Levelland Campus) or the Dean of the SPC Reese Center (Reese/BMATC Centers) or the Director of the Plainview Center. Faculty/Staff learning of serious accidents involving students should notify campus police immediately, who will in turn notify the President and the Vice President for Student Affairs who will evaluate the seriousness of the situation, confirm the facts and consider a suitable response. Members of the Board of Regents will be notified by the President as soon as possible.

1-3.4 Release of Information

In the case of serious accidents, supervisors and employees may not release information to the news media. Information to the media is to be provided by the Office of College Relations through a designated spokesperson. If contacted by the media please refer these individuals to the Office of College Relations immediately.

1-4 Reporting of Crimes on College Property

1-4.1 General Information

The college provides 24-hour law enforcement services for the Levelland Campus. Law enforcement services are available while classes are in session at the SPC Reese Center. At the Byron Martin Advanced Technology Center, a private security service provides security services for ATC classes held during the evening. The Lubbock Independent School District provides campus security at that facility during the day. The Plainview Center is served by police officers and the City of Plainview Police Department. The Campus Police Department is responsible for investigating all crimes and accidents occurring on college property. The Campus Police Department monitors the buildings and grounds for breaches in campus security or potential threats to students, employees, and visitors. Campus Police Officers are certified Texas Peace Officers with full law enforcement authority. Campus Police can be reached at the numbers listed in the *Student Guide, Class Schedule* or the *Emergency Response Guide.*

1-4.2 Reporting Procedures

All crimes or suspected criminal activity occurring on college property or at any college-sponsored event should be reported immediately to the Campus Police Department.

1-4.3 Altercations and Other Disturbances

Contact the Campus Police Department or the Dean of Students at the Levelland Campus concerning any altercation or disturbance by students on campus. At the Reese Center call the Campus Police or the Dean of the SPC Reese Center**.** At the Byron Martin ATC or Plainview Center, contact the security service or the local police department. If, in the opinion of the employee, the incident warrants emergency service personnel, 911 may be called directly by the employee. The employee should attempt to obtain the names of anyone who observed the incident or who might be able to provide any information useful in the investigation of the incident.

1-5 Campus Police Services

1-5.1 Access to Campus Facilities

Campus security is a shared responsibility among all employees. Special arrangements can be made for unlocking or locking buildings by calling the Campus Police Department.

Contractors may be provided temporary access to facilities to perform service or construction work during periods the college is closed. Special arrangements should be made with the Director of Physical Plant to assure that building security is provided during these periods. The Vice President for Finance and Administration oversees the issuance of keys to employees for access to buildings and rooms the employee might need to enter to conduct their duties.

An employee's supervisor may provide access to other areas on a temporary basis when such access is warranted. An employee may not lend any building key to another employee and is responsible for any misuse or breach of security that results from this transfer. Keys are not to be transferred from one employee to another nor any building key duplicated.

1-5.2 Escort Services

The Campus Police are available to accompany individuals to their cars during evening hours or when an individual feels that an escort is needed.

1-6 Medical Emergencies, First Aid, and Medical Treatment

1-6.1 Requests for Emergency Medical Assistance

After calling 911, the College Police Department should be notified so that they may direct emergency vehicles to the scene.

1-6.2 Student Medical Treatment for Accidents

Students who receive medical treatment as a result of accident are covered under the Student Accident Insurance Policy as outlined in the ***General Catalog*** and the ***Student Guide***.

Information and claim forms for the Student Accident Insurance Policy may be obtained from the Health Services Office or the Dean of Students Office (Levelland Campus) or the Dean of the SPC Reese Center Office in Building 8 (Reese/BMATC Centers) or the Director of the Plainview Center Office.

The appropriate Dean or Director will complete and sign Part I of the claim form. The student is responsible for completing Part II of the form and taking a copy to the treatment facility and sending the original to the insurance agent.

1-6.3 Injury Reporting

The college is required to maintain a listing of all workplace illnesses and injuries and to complete a summary report of the findings to the state annually. A college injury report is to be completed immediately following an injury, no matter how slight, with the Human Resources Office. A copy of the injury report is then forwarded to the employee's supervisor. If the injury is severe enough, the injury report must be filed as soon as possible by the employee or his or her supervisor.

1-6.4 Medical Return to Work Authorization

In some situations, a Return to Work Authorization may be required from the attending physician before an employee may return to work. The employee's supervisor is responsible for seeing that this form is sent to the Human Resources Office allowing the employee to return.

1-6.5 First Aid Kit Location

It is recommended that each department or office maintain a first aid kit for non-emergency medical care. The location of this kit should be communicated to all employees working in that area.

1-6.6 Automated External Defibrillator (AED) Locations

Levelland – Athletic Office, PE Complex Director's Office, SPC Health Clinic, Dome (athletic training room, lower level), Campus Police Car

Reese – Building 8 near Financial Aid Office

ATC – Near main doors by mailroom, East hallway next to vending machines

Plainview –

1-7 Power Losses

1-7.1 General Information

The college may experience power losses to one or more buildings due to storms, power company disruptions, or damage to the service lines entering the campus. These interruptions can lead to conditions that may result in personal injury or damage to equipment or facilities. This section sets forth general procedures to be used in the event of loss of power.

Power losses greatly increase the likelihood of an accident due to the following:

- The loss of lighting increases the possibility of injury to those moving throughout the building/campus.
- The attendant electrical surge accompanying the restoration of power may damage electrical devices not switched off.
- The operation of electrical devices during a phase loss may result in damage to these devices.
- The electrical loss may disrupt telephone service and emergency devices such as fire alarms.

In the event of power loss, every effort should be made to immediately turn off all electrical equipment within an employee's work area before power is restored to protect the equipment within their area. When sufficient lighting exists during day hours to work safely and the building is comfortable without air conditioning, the building may remain open for operation. During evening operations, the building may be evacuated. Further directions concerning class schedules will be provided by the Vice President for Academic Affairs.

1-7.2 Reporting Power Losses

In general, the loss of power or the disruption in normal electrical service should be reported immediately to the Maintenance Department. After 5:00 p.m., reports should be made to the Maintenance Department's answering service at 806-716-2440. Maintenance staff will investigate the scope and condition of power loss and proceed to correct the matter accordingly.

In instances when power loss is due to the disruption of utility service, the electric company will be called to restore services.

1-7.3 Emergency Lighting

During periods of power outages, emergency lighting will automatically come on in the hallways and stairways of all buildings that have these devices.

1-8 Weather Events

1-8.1 Weather Delays and Cancellations

The College will delay or cancel classes when inclement weather poses concern for the welfare of students and staff. Information about delays or class cancellations will be communicated to employees via the Emergency Notification System. Email, text and telephone messages will be sent to faculty, staff and students. When the college is closed, information will be made available through local radio and television stations for updates on the college's schedule of operation.

1-8.2 Severe Weather

In the event of severe weather, the South Plains College Crisis Management Plan (appendix D) will guide the College in its response to the crisis situation.

1-9 Personal Protective Equipment

1-9.1 Policy

South Plains College recommends, and in some instances requires its employees to use, personal protective equipment for eyes, face, head, and extremities, together with protective clothing, respiratory devices, and protective shields and barriers when potential hazards exist. All required personal protective equipment is provided by the college and is to be used and maintained in a sanitary and reliable condition wherever it is necessary due to the hazards associated with a process or the environment (e.g., chemical hazards, radiological hazards, or mechanical irritants). Such hazards include the exposure to or performance of:

1. Hot solids, liquids, or molten metals
2. Milling, sawing, turning, shaping, cutting, or stamping of any solid materials
3. Heat treatment, tempering, or kiln firing of any metal or other materials
4. Gas or electric arc welding
5. Repair or servicing of any vehicle
6. Caustic or explosive chemicals or materials

1-9.2 Responsibility of Departments

The provision of the necessary personal protective equipment and requiring the wearing of said equipment at all appropriate times is the responsibility of each individual department head. The college has furnished an initial stock of eye and face protective devices to departments that have indicated a need. All subsequent needs and requirements for eye and face protection devices, as well as needs for all other types of personal protective equipment and devices, should be met by departments with their regular budget allocations.

The maintenance of personal protective equipment in a sanitary, usable, and reliable condition, the issue and recovery of units of equipment, the replacement of worn or defective equipment, and the addition of inventory to meet current needs, is the responsibility of individual departments.

1-9.3 Eye and Face Protection (Employees and Visitors)

Certain areas of the college may be considered areas where eye protection is warranted at all times. These areas will be designated “100% Eye Protection Areas” by the Safety and Health Committee.

Employees are required to wear proper eye protection for all work that may expose them to any of the hazards listed in Section 1-9.1. Employees with work assignments in close proximity to the performance of these tasks and with a potential exposure to eye injuries are required to wear appropriate eye protection. Any visitors who enter areas that require the use of safety glasses must be provided with them for protection. Employees who require the use of corrective lenses and are required under this policy to wear eye protection will wear safety glasses designed to fit over their corrective lenses.

1-9.4 Hand/Foot Protection

Maintenance employees must wear some type of glove when their job duties may subject their hands to possible abrasion, cutting, or chemical exposure.

Sturdy work shoes are recommended for maintenance and shop work. Athletic shoes and canvas loafers are not recommended as work shoes for maintenance workers and faculty members with shop responsibilities. Employees whose duties involve the use of certain types of power equipment (e.g., lawn mower, weed eater, edger) or the movement of heavy objects should use safety work shoes with metal toes.

1-10 Academic Laboratory and Shop Practices

1-10.1 General

Instructors are responsible for the observance of industry accepted and government mandated safety procedures within the laboratories and shops in which they teach. This manual does not attempt to specify or mandate procedures for a particular area. The instruction of students in proper safety practices must be incorporated into the content of each course requiring shop or laboratory work. The observance of safe laboratory or shop practices in the developing tradesman or technician should be an expected outcome. Each instructor is responsible for:

- Understanding the proper safety practices appropriate to the procedures and machines utilized within their area of instruction.
- Enforcing established or recommended safety rules within their area of instruction
- Correcting unsafe actions by students or part-time faculty
- Eliminating unsafe conditions within their areas or resolving them with the assistance of their department chair or Safety and Health Committee.
- Participating in the safety program and providing information when requested.

1-11 New Employee Safety and Health Orientation

1-11.1 Policy

South Plains College requires all new employees to attend a new employee orientation. This orientation includes an awareness of safety importance and the employee's responsibility for maintaining a safe and healthy work environment. An overview of workplace safety basics is also provided. The expected results are that SPC employees are more safety conscious employees who are receptive to learning and practicing the specifics of a safe, healthy workplace.

1-11.2 Safety Orientation for New Employees

All new employees of South Plains College will participate in a safety and health orientation program within (2) two weeks of their first day of reporting to work. The orientation will consist of the following information:

- General safety policies of the college
- Fire reporting procedures
- Fire extinguisher location and use
- Fire prevention
- Safe lifting techniques
- Hazardous Materials Communications (MSDS)
- Communicable disease policies

The new employee's supervisor will present safety procedures and policies specific to the new employee's position and any information the supervisor feels will provide the new employee with a safe environment.

1-12 Smoking Policy

1-12.1 Policy

Smoking is prohibited in all buildings on campus at all locations, including a 25 foot perimeter around all facility entrances, exits and HVAC air intake vents as well as all college owned vehicles. Employees and students who violate this policy may be subject to disciplinary action. Complete text of the policy may be found in the South Plains College Policy and Procedure Manual section GFA.

1-13 Handling of Suspicious Mail

1-13.1 Policy

Employees and the students of South Plains College are encouraged to use caution when handling incoming mail. Guidelines for the safe handling of mail as issued by the Texas Department of Health (TDH) may be found in Appendix E of this document.

SECTION 2

FIRE PREVENTION AND PROTECTION REQUIREMENTS

2-1 Standard Operating Procedures

2-1.1 Fire Prevention Procedures

The following procedure must be followed in an effort to reduce the risk of fire:

- Sufficient waste receptacles should be provided and emptied on a daily basis.
- All oily cloths are to be kept in a covered metal can.
- Accumulations of paper and flammable materials are to be kept to a minimum.
- Combustible materials should be stored in a proper cabinet or container and away from heating or electrical devices.
- Finely divided material produced in shops or laboratories (e.g., sawdust or fabric) should be frequently removed to prevent accumulation.

2-1.2 Exit ways

No obstructions may be placed in front of or upon any exit door. No aisle, exit access, or stairway may be obstructed with furniture or other obstructions so as to reduce the required width of the exit way during hours the facility is open to students or employees.

2-1.3 Doors, Hallways, Stairways, and Landings

Fire doors separating stairwells from hallway or smoke partition doors must be maintained in working order. They are never to be blocked, wedged, or tied open. The storage of any kind, or the use of office or laboratory equipment in the hallways or stairways, is strictly forbidden.

2-1.4 Railings, Steps, Walks

The area immediately outside of building exits will be maintained free of material at all times. Bicycles and vehicles are not permitted on sidewalks immediately adjacent to an exit.

2-1.5 Fire Extinguisher

Fire extinguishers, in appropriate sizes and types, are provided throughout the campus for normal activities in each area. Extinguishers are inspected as required by a qualified contractor. The theft of or tampering with an extinguisher should be reported immediately to the Campus Police Department.

2-1.6 Fire Evacuations

Fire alarms or other evacuation notification procedures will be sounded to evacuate the building or buildings. Able employees and students are encouraged to assist with the evacuation of disabled and impaired persons when possible.

As soon as the fire alarm is activated, the faculty, staff and students will immediately exit the building by the nearest exit. Any faculty teaching a class when an alarm is activated should supervise an orderly exodus of students from the classrooms and buildings. All classroom doors should be closed after everyone has exited. The faculty member will stay with the class until the administrator in charge has made the all-clear announcement and normal activities

can be resumed. Under no circumstance is anyone allowed to re-enter the building until the reason for the alarm has been determined and corrected.

All faculty and staff members must know where all exits are in the buildings in which they teach. The Safety and Health Committee will provide information in an appropriate manner so that everyone has a working knowledge of the evacuation procedures. All new employees will be required to review the Safety Plan, which contains all policies and procedures dealing with safety and health issues.

It is the responsibility of all employees to make certain that their own areas are evacuated promptly and properly.

The purpose of these procedures is to reduce the likelihood of injury or death in the event of a fire or any other major catastrophe that would necessitate the evacuation of any of the buildings on the college campus. Knowledge of the evacuation routes will reduce the possibility of panic or unsafe action in the event of an emergency.

2-1.7 Fire Log

The Higher Education Opportunity Act (HEOA) requires that all Title IV eligible institutions that participate in any Title IV program and that maintain on-campus housing facilities publish an annual fire safety report, maintain a fire log, and report fire statistics to The Secretary of Education. A copy of the SPC fire log is available in the Campus Police Office on the Levelland Campus. In addition, a copy of the annual fire report is available in the office of the Dean of Students.

SECTION 3 – (POLICY GG)
COMMUNICABLE DISEASE POLICY

3-1.1 Objectives of the Policy
The objectives of the communicable disease policy are to:

- Minimize the risk of students or employees acquiring or transmitting communicable diseases through an organized education program, which shall emphasize primary prevention.
- Protect the confidentiality of students or employees with a communicable disease.
- Provide for an annual review of the Communicable Disease Policy in light of current information.
- Establish a Communicable Disease Committee, the purpose of which shall be to review any cases of communicable diseases that may be of public health concern as they arise.

3-1.2 General Policy Statement
South Plains College recognizes that students or employees with communicable diseases may wish to engage in as many of their normal pursuits as their condition and ability to perform their duties allows, including attending classes or working. As long as these students or employees are able to meet acceptable performance standards, and medical evidence indicates that their conditions are not a threat to themselves or others, the Administration of the College should be sensitive to their condition and ensure that they are treated consistently and equally with other students and employees. At the same time, South Plains College has an obligation to provide a safe environment for all students and employees.

A student or employee with a communicable disease is required to report the condition to his or her immediate supervisor or to the Dean of Students, as appropriate. Failure to inform the college may result in dismissal of the student or employee from the college. Every precaution should be taken to ensure that the student's or employee's condition does not present a health and/or safety threat to others. The fact that a student or employee has a communicable disease does not relieve that individual of the requirement to comply with performance standards as long as he or she is enrolled in classes or remains employed with the college. All reasonable efforts will be made to protect the student’s or employee’s right to confidentiality.

3-1.3 General Guidelines
The following general guidelines are adopted:

- South Plains College will make information on the prevention of communicable diseases available to students and employees.
- A student’s or employee's health condition is personal and confidential, and reasonable precautions should be taken to protect information regarding an individual's health condition. The Dean of Students should be contacted if it is believed that a student needs information about communicable diseases, or if further guidance

is needed in managing a situation that involves a communicable disease. The appropriate administrative official should be contacted regarding any situation involving a communicable disease.

- The appropriate administrative official and the Dean of Students should be contacted if there is concern about the possible contagious nature of any student's or employee's illness.
- A student or employee with a communicable disease should be encouraged to provide current reports from his or her treating physician concerning the individual's condition, whether the individual should be in contact with other students or employees, and if current health status permits him or her to attend classes or to perform the essential functions of his or her job. South Plains College reserves the right, with the consent of the student or employee, to require a medical examination by a physician appointed by the college.
- A student or employee with a communicable disease may attend classes or perform duties at South Plains College if his or her presence does not pose a threat or danger to that individual or to others in the college, or to the academic process.
- Temporary removal of a student or employee with a communicable disease may be made by the administration of the college. The removal may be made summarily pending receipt of documentation by a physician that the individual does not pose a substantial threat or danger to himself or herself or other persons at South Plains College.
- The administration of South Plains College will determine whether a student or employee with a communicable disease may continue to attend classes or perform his or her duties at the college on a case-by-case basis, after hearing the recommendations of the Communicable Disease Committee.
- Due process, including the issuance of recommendation by the Communicable Disease Committee, shall be afforded the individual.
- Students or employees with a communicable disease should be encouraged to seek assistance from established community support groups for medical treatment and counseling services. Information can be requested from the Dean of Students.
- Any student or employee coming in contact with another person's body fluids should be encouraged to seek assistance from established institutional medical personnel or private medical facilities. As a minimum the individual should report to the Student Health Office.

Additional Guidelines for Allied Health Students and Employees

3-2.1 Definition of Occupational Exposure

For purposes of this document, a student/instructor exposure (i.e., exposure that occurs during the performance of clinical practice or job duties) that may place a worker at risk of HBV or HIV infection is defined as some percutaneous injury (e.g., a needle stick or cut with a sharp, especially when the exposed skin is chapped, abraded, or afflicted with dermatitis, or the contact is prolonged or involving an extensive area), with blood, tissue, or other body fluids to which Universal Precautions apply, including semen, vaginal secretions, blood or serum, urine, feces, vomitus, wound or tube drainage. Human bites, patient nails that break the skin, and blood/body fluid exposed to mucous membrane such as eyes, mouth, nose, or open skin are considered exposures. Tears and perspiration do NOT constitute an exposure.

3-2.2 Policies and Procedures

Students/Instructors who are exposed to blood or body fluids by any route must report to the applicable instructor, supervisor or charge nurse and infection control nurse immediately. In addition, an occurrence report must be prepared and a copy given to the Dean of Health Occupations at South Plains College. All records, documents and interactions resulting from the implementation of the plan of treatment for an exposed student/instructor will be afforded all confidentiality required by law.

- The student/instructor should report the following routes of exposure:
    - A contaminated (dirty) needle stick or puncture of the skin with a needle or sharp instrument/object soiled with blood or body fluids.
    - Splash or aerosolization of blood or body fluids onto the mucous membranes of the mouth, nose, or eyes.
    - Human bite.
    - Open wound that is soiled with blood or body fluids.
    - Non-protected mouth-to-mouth resuscitation.
- It is the policy of South Plains College that all students/instructors in specified programs in the Division of Health Occupations provide written proof of immunizations against Rubeola, Rubella, Mumps, Tetanus, and Hepatitis B. A PPD Manuoux test is also required on a yearly basis.
- Students/Instructors should determine if the needle was clean or dirty. A clean needle is one that has NOT met blood or body fluids. The Division of Health Occupations requires tetanus boosters; therefore the only treatment would be to cleanse the wound with an antiseptic and cover with a dressing if needed.
- A dirty needle is a needle that has been in contact with blood or body fluids or a patient's used equipment such as a piggyback needle from the intravenous tubing or a needle used for an injection or an intravenous stylet needle. If student/instructor is exposed to a contaminated (dirty) needle/sharp, they must report the occurrence as soon as possible so the appropriate treatment can be taken. Reporting the injury promptly would also document the occurrence as an occupational exposure and would be evidence of how the student/faculty was infected if the student/instructor seroconverted later.
- The student/instructor should follow the exposure policy and procedure of the clinical facility where the exposure occurred. Usually, the student/instructor will report to the emergency room for initiation of treatment.
- The following steps outline recommended treatment for occupational exposure to blood or body fluids:
    - If the blood or body fluid source is known, the student/instructor can request the patient/source be tested for Hepatitis B surface antigen and HIV antibodies.
    - Whether or not the source is known, the student/instructor should be tested for Hepatitis B and HIV antibodies. With this method, there will be baseline tests to compare with all future tests.
    - Counseling should be initiated concerning the treatment and the follow-up care that will be done. The student/instructor will learn about the risk of infection and follow-up laboratory testing

3-2.3 Student and Employee Safety Requirements

All Allied Health programs will be required to integrate an instructional unit on communicable diseases into their curricula, and students will be required to complete the unit before they may be assigned to clinical training facilities. The unit should emphasize primary prevention and precautionary measures for the protection of staff, students, and their patients as outlined in current Center for Disease Control guidelines. The instructor and each student in the program will sign a certification statement that such training has been successfully completed and the student understands the risk involved in caring for patients with communicable diseases before the student begins clinical training.

Students and employees of the college should routinely follow precautionary measures for the protection of themselves and patients as outlined in current Center for Disease Control guidelines.

A student or employee with a communicable disease should provide current reports from his or her treating physician concerning whether the student or employee should be in contact with patients, and whether he or she can perform the functions of his or her job or training site without exposing patients or other students or employees to an unreasonable risk in light of current medical knowledge.

Students placed in a clinical affiliate are expected to follow the affiliate's guidelines governing caring for patients with communicable disease provided that the care is within the student's level of training and consistent with the Center for Disease Control guidelines. The supervising staff in clinical affiliates should see that students assigned to the affiliate are familiar with the health status of all patients under the students' care.

3-2.4 Communicable Disease Review Committee

A Communicable Disease Committee is to be established, and will be composed of a physician appointed by the college, a public health official, administrative representatives of South Plains College, and one or more representatives from South Plains College health care programs. The individual who has a communicable disease and his or her representatives, which may include a physician appointed by the individual, are encouraged to consult with the committee.

The purpose of the Communicable Disease Committee shall be to review any case of communicable disease that may be of public health concern on a continuing basis. The committee will issue recommendations to the administration on the individual's potential threat or danger to himself or herself and others in South Plains College or its clinical affiliates. Final disposition and action rests solely with the Board of Regents of South Plains College or its designated representatives.

When considering recommending the dismissal of a student or the discharge of an employee with a communicable disease, the Committee will consider the interests of the affected individual, other students and employees, patients in clinical affiliates, and the college.

SECTION 4

BLOODBORNE PATHOGENS

4-1 Exposure Control Plan

4-1.1 Purpose of the Program

This program identifies the job classifications which have been determined to have potential exposure to blood and other potentially infectious materials as a student or in the employment of the college.

All college personnel are required to comply with the procedures set forth in this program. Any failure to comply may be cause for disciplinary action. In the event that the requirements of the program should conflict with established infection control procedures, the more protective procedure(s) will be followed to obtain the maximum protection for the employee.

4-1.2 Exposure Determination: Assignment of Responsibility

Division heads, department heads, program directors, or supervisors will be responsible for classifying tasks performed in their areas of responsibility according to the following exposure classifications, and for developing and maintaining up-to-date policies for eliminating or reducing task-associated risks.

4-1.3 Job Classifications

All jobs (includes part-time) will be classified in accordance with their potential exposure to BLOODBORNE pathogens. Job positions will be classified consistent with the following terms and potential for exposure:

Classification I

This includes jobs in which required tasks routinely involve a potential for mucous membrane or skin contact with blood, body fluids, tissues or potential spills or splashes. Appropriate protective measures will be required of these employees. This category includes, but not limited to, faculty in the Associate Degree Nursing, Vocational Nursing, EMT, and Phlebotomy courses.

Classification II

This includes jobs in which required tasks normally do not involve exposure to blood, body fluids, or tissues but may require performing unplanned Classification I tasks. Appropriate protective measures will be required of these employees. This category includes, but not limited to, maintenance, police and security officers.

Classification III

This includes jobs in which required tasks involve no greater exposure to blood, body fluids, or tissues than would be encountered by a visitor. The job normally does not involve exposure to blood, body fluids or tissues, and the employee can decline to perform tasks which involve a perceived risk without retribution.

Supervisors and instructors are responsible for monitoring employee or student training status and their compliance with risk reducing Universal Precautions and specific risk-reducing policies. First-line supervisors and instructors will be attentive to recognize and act to prevent unsafe actions by anyone in their presence.

4-1.4 Employee Responsibilities

All employees share responsibility with and for their co-workers, to insure compliance with the letter, spirit and intent of this institution's policies for the prevention or transmission of disease among employees, students, and visitors to the college. Therefore, each employee and student must know how to recognize occupational exposure and must communicate changes in the exposure classification to their supervisor if asked to perform tasks or procedures which involve an increased risk of exposure.

4-1.5 Work Practices

College employees and their supervisors should have access to and become familiar with the policies and procedure adopted by each clinical site including but not limited to those concerning the use of universal precautions, hand washing, procedures involving blood or other body fluids, and those concerning eating or drinking in the clinical sites. Faculty members should review these procedures with all students prior to entering any extramural clinical facility.

4-1.6 Personal Protective Equipment Policies

The Dean of Health Occupations will adopt policies and procedures on the use of general and specific personal protective equipment for employees and students as well as those for the placement and removal of personal protective equipment consistent with those set forth by *OSHA Section 1910 BLOODBORNE Pathogens.*

4-1.7 Use of Sharps

Training in injections and the use of other sharps is confined to the clinical sites of nursing labs. In the event that skin penetration is made, these objects are to be disposed of in containers that are closeable, puncture resistant, and leak proof of sides and bottoms. The container will either be red or affixed with a fluorescent orange or orange-red label with letter in contrasting colors and a biohazard symbol.

Contaminated sharps in the clinical sites will be disposed of in accordance with the established policies of each site. Nursing faculty members should familiarize themselves and the students with these procedures prior to the introduction of sharps into the clinical experiences.

Disposable needles and other sharps that have been used in demonstrations (and are not contaminated) on the campus should be disposed of in containers that are closeable and puncture resistant.

4-1.8 Specimen

College faculty and students will conform to established Universal Precautions and the procedures established by each clinical facility.

4-1.9 Laundry
Contaminated laundry, linens, and reusable personal protective equipment, to the extent they are soiled or reasonably anticipated to be soiled with blood or other potentially infectious materials, will be handled by employees and students as little as possible with a minimum of agitation. It will be bagged or containerized in the clinical site or other location of use. Contaminated laundry will not be sorted or rinsed in the location of use. Employees and students who have contact with contaminated laundry will wear utility gloves and protective body clothing issued by the college.

4-1.10 Housekeeping
Classroom and laboratory procedures involving the use of blood or the potential exposure to blood or other body fluids are restricted to clinical sites. Faculty should become familiar with the housekeeping procedures of the clinical sites and conform the student practices with these procedures.

In incidents such as student accidents or altercations on college property involving the potential exposure to blood or other body fluids by students or employees, the Chief of Police will be notified immediately of the occurrence. Employees who have contact with the contaminated items will wear utility gloves and protective body clothing issued by the college. Contaminated items will be disposed of as regulated waste.

4-1.11 Regulated Waste
For disposal of contaminated waste, the college will provide containers that are closeable, constructed to contain all contents and prevent leakage of fluids, and that are colored red, or alternatively affixed with a fluorescent orange or orange-red label with letters in contrasting colors and a biohazard symbol. If outside contamination of the regulated waste container occurs, it will be placed in a second container with the same characteristics as the first container. The disposal of the regulated waste will be in accordance with local applicable laws and regulations.

4-1.12 Hazard Substance Storage and Transportation
In the event that the college stores or transports any potentially infectious material, all such containers must have the biohazard symbol affixed in fluorescent orange or orange-red labels with the letters in a contrasting color.

4-1.13 Post-Exposure Evaluation and Follow-Up
In the event of an exposure incident, the employee or student must complete a written confidential incident report. It will be the responsibility of the employee or student to acquire medical evaluation blood testing, and such other follow-up procedures as appropriate to the circumstances. South Plains College will not be responsible for payment of this test except for the students that pay the clinical fee for accidental needle sticks. The employee or student may turn the charges into their respective insurance policies. (Investigation and documentation of exposure incidents should be reported to the appropriate staff immediately.)

The confidential incident report and medical evaluation and follow-up will include:

- Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred.

- Identification and documentation of the source individual (unless it can be established that identification is not feasible or prohibited by state or local law).

- If known, the source individual's blood should be tested for HBV and HIV, as soon as feasible (within 48 hours) or, if the source individual is already known to be infected with HBV or HIV, testing need not be repeated. Whether the source individual's blood tests are done as a result of the exposure incident or previous testing has revealed the source individual to be infected with HBV or HIV, the results of the source individual's blood tests are given to the exposed employee or student.

- If the source individual cannot be identified, the exposed employee or student will be tested for HBV or HIV infectivity as soon as feasible (within 48 hours) and with consent. If the exposed employee or student consents to baseline collection of blood but refuses HIV testing, the laboratory is instructed to preserve the sample for 90 days. (If, during this time period, the employee elects to have the sample tested, this is done.).

- If the source individual is HBV or HIV positive, the employee or student's blood is retested, if seronegative at six weeks, twelve weeks, and six months after exposure. The exposed individual may elect to provide retesting annually for up to ten years following an exposure incident.

- In support of this evaluation, the college will provide the evaluating professional a description of the exposed employee or student's duties as they relate to the exposure incident, documentation of the route(s) of exposure and circumstances under which the exposure occurred, the results of the source individual's blood testing (if available), all records that are relevant to the appropriate treatment of the employee or student including their vaccination status. An evaluation of the employee's work practices or student's class performance and protective equipment or clothing used at the time of the incident, must be made by the exposure control officer.

- The employee or student should be informed of applicable laws and regulations concerning disclosure of the identity and the infectious status of the source individual at the time the source individual's testing results are given to the employee or student.

4-1.14 Training and Education

All Classification I and Classification II employees will be expected to participate in an information and training program at least annually or whenever changes occur in clinical practices, engineering controls, the use or availability of personal protective clothing and equipment, or other aspects of the infection control program which will affect the way(s) in which employee exposure to BLOODBOURNE pathogens are controlled. Education related to these changes may be limited to addressing new exposure or control practices and upon transfer of employees into new job classifications entailing exposure or potential exposure to new hazards or involving the use of new or different work practice controls.

4-1.15 Records: Employee Record Content
Category I and II employee files will contain:

The following records will be maintained in the employee's departmental records and personnel file:

- The employee's name and social security number;
- A copy of the employee's required vaccine status, including the dates of all hepatitis B, Tetanus, and PPD vaccinations or any records relative to the employee's ability to receive the hepatitis B vaccine;
- Copies of any incident reports and post-exposure follow-up procedures performed;
- A copy of the health care professional's written opinion, stating whether or not the hepatitis B vaccine is indicated for the employee, and if the employee has received the vaccination; and,
- A copy of the following information that was provided to the health care professional, in the event of an incident of employee exposure:
    - The description of the employee's duties as they relate to the exposure incident
    - Documentation of the route(s) of exposure
    - The circumstances under which the exposure occurred
    - The results of the source individual's blood testing (if available)

4-1.16 Employee Records: Employee Record Maintenance
Employee's records are kept confidential and are not disclosed or reported without an individual employee's written consent, except as required by federal, state, or local laws. The college will maintain employee records for not less than thirty (30) years after the employee's termination.

4-1.17 Student Records: Record Content
The college will establish a confidential record for any student determined to be at-risk for exposure to BLOODBORNE pathogens as a result of laboratory or clinical educational experiences. Each student's record will contain:

- Student's name and social security number.
- A copy of the student's required health examination form, current health and immunizations status.
- A copy of the student's required vaccination status, including the dates of all hepatitis B, Tetanus, and PPD vaccinations, or any records relative to the student's ability to receive the hepatitis B vaccine.
- Copies of any incident reports and post-exposure follow-up procedures performed, in the event that a student experiences an exposure incident.
- A copy of the health care professional's written opinion, stating whether or not the hepatitis B vaccine is indicated for the student, and if the student has received such vaccination.
- A copy of the following information that was provided to the health care professional, in the event of an incident of student exposure:

- The description of the student's educational activities as they relate to the exposure incident.
- Documentation of the route(s) of exposure.
- The circumstances under which the exposure occurred.
- Results of the source individual(s) blood (if available).

4-1.18 Student Records: Records Maintenance

Student's records are kept confidential and are not disclosed or reported without an individual student's written consent, except as required by federal, state, or local laws. Student's records will be maintained for not less than thirty (30) years after the student's graduation. Graduating students may receive a copy of their record relating to their immunization status and occupational exposure to BLOODBORNE pathogens.

4-1.19 Employee/Student Training Records

Employee training records will be maintained by their Department Head and in the Safety Officers office and will include the dates of the training sessions, the contents or a summary of the training session, the name(s) and qualifications of the person(s) conducting the employee training; and, the name and titles of all persons attending the training sessions. The training record will be maintained for three (3) years.

4-1.20 Employees or Applicants Currently Infected

- Any applicant or current employee who has HIV or HBV or other BLOODBORNE disease will be individually evaluated and all employment decisions concerning the individual will be based upon a consideration of the following factors:
  - The potential harm that the individual poses to other people,
  - The ability of the individual to accomplish the objectives of the employment position,
  - Whether or not a reasonable accommodation can be made that will enable the individual to safely and efficiently accomplish the objectives or tasks of the position in question without significantly exposing the individual or other persons to the risk of infection.

All employees who have a known BLOODBORNE disease will be routinely assessed by a college-approved physician in keeping with the current standards, requirements, and recommendations of the Centers for Disease Control and in keeping with the provisions of this policy. The evaluation of an applicant or current employee with a known BLOODBORNE disease will include a physician's statement of the individual's health status as it relates to the individual's ability to adequately and safely accomplish the essential objectives of his position. The physician's statement must also indicate the nature and extent of the individual's susceptibility to infectious diseases often encountered when accomplishing the objectives of the individual's position.

4-1.21 Disclaimer

These policies and procedures are based upon the latest information developed by the college and do not purport to be or to include the latest or most definitive information. The college makes no such claim and offers no assurance that this is the case. This material is informational only and not contractual. Individuals affected by these policies and procedures are responsible for keeping themselves informed and to take any necessary precautions for their own safety and the safety of others relating to communicable diseases.

APPENDIX A

Appendix A

WORKPLACE SAFETY AND HEALTH REQUIREMENTS

In order to maintain a safe and healthy workplace, the following checklists are provided to serve as guides for conducting periodic workplace safety inspections by building supervisors and other responsible personnel. Non-compliance of these basic requirements should be corrected at the time of inspection if possible, or should be reported to the proper maintenance or supervisory personnel for corrective measures.

OFFICE SAFETY and HEALTH INSPECTION CHECKLIST

DEPARTMENT/OFFICE:

General Office Safety

YES NO

♦ Are aisles, doorways and corners free of obstructions to permit visibility and movement?

♦ ♦ Are chairs in safe condition and are casters, rungs and legs sturdy?

♦ ♦ Are there any sharp edges, burrs or splinters on furniture?

♦ ♦ Is all equipment stored in its proper place(s)?

♦ ♦ Do extra books and file boxes clutter office and areas?
If yes, designate area

♦ ♦ Are there loose materials and /or coverings on walls in offices?
If yes, designate location

♦ ♦ Are persons in this area designated for the administration of first aid?
List employee(s) names: Ext:

♦ ♦ Are carts, dollies, etc. available for use in transporting heavy objects and boxes?

♦ ♦ Are entrances and /or exits to stairwells and offices blocked or obstructed?

♦ ♦ Is the loading dock free of debris and clutter?

Tripping/Falling

YES NO

♦ ♦ Are floor surfaces secure and free of hazards or posted Wet" floor if hazardous?

♦ ♦ Are carpeted areas clean, carpets secured to floor and free of worn or frayed seams?

♦ ♦ Are all emergency exits properly lighted and free of debris?

♦ ♦ Are all emergency exits clearly marked and visible?

♦ ♦ Is there adequate walking space approaching exits? (4 feet of each side of exit)

♦ ♦ Are stairways in good condition with handrails available and covered with skid resistant materials?

♦ ♦ Where stairs are carpeted, is the carpeting well secured?

♦ ♦ Where one or two steps adjoin different levels, are they easy to see and are they marked?

♦ ♦ Is the area equipped with a step stool or ladder so high objects can be reached safely?

♦ ♦ Do doors open directly into pedestrian walkways? If so, are the doors equipped with windows and/or warning signs?

♦ ♦ Are restrooms marked and free of wet floors, boxes, etc.?

Electrical

YES NO

♦ ♦ Are all electrical appliances and equipment properly grounded or double insulated?

♦ ♦ Are plugs and outlets overloaded and/or adapters being used?

♦ ♦ Is all electrical equipment in proper working order?

♦ ♦ Are there frayed and/or worn cords?

♦ ♦ Are all phone cords and electric cords secured under desks or along baseboards?

♦ ♦ Are temporary use cords taped to the floor for their entire length?

♦ ♦ Do runners cover permanent use cords when crossing walkways?

Storage

YES NO

♦ ♦ Are file cabinets and flammable storage closets and/or cabinets arranged so drawers and doors do not open into walkways?

♦ ♦ Where work is done with materials such as cleaning fluids, glues, correcting fluids, etc., are storage places adequate?

♦ ♦ Are flammable and/or hazardous materials stored in metal fireproof containers with airtight lids?

♦ ♦ Is there storage above 6 feet? If yes, designate location

♦ ♦ Are the office areas equipped with storage cabinets?

♦ ♦ Are small or loose items boxed and labeled as to contents (i.e., biohazard, trash, file, flammable, etc.) and properly stored?

♦ ♦ Are all shower rooms/lockers in proper order - free of clutter, and sanitary?

♦ ♦ Is the mailroom clearly marked and free of clutter?

Fire

YES NO

♦ ♦ Are ashtrays visible on desks in the offices or in designated smoking areas?

♦ ♦ Are No Smoking areas designated and clearly marked?

♦ ♦ Are the locations of fire extinguishers and hoses posted?

♦ ♦ Have fire extinguishers and hoses been inspected?
Date of last inspection

♦ ♦ Are emergency and fire evacuation plans for the building posted?

♦ ♦ Are fire extinguishers located near copying machines?

GENERAL WORKPLACE INSPECTION CHECKLIST

DEPARTMENT/OFFICE

Exit and Access

YES NO

♦ ♦ Are all exits visible and unobstructed?

♦ ♦ Are all exits marked with a readily visible sign that is properly illuminated?

♦ ♦ Are there sufficient exits to ensure prompt escape in case of emergency?

♦ ♦ Are areas with limited occupancy posted and is access/egress controlled to persons specially authorized to be in those areas?

♦ ♦ Are there special precautions established to protect employees during construction and repair operations?

Fire Protection

YES NO

♦ ♦ Are portable fire extinguishers provided in adequate number and type?

♦ ♦ Are fire extinguishers inspected monthly for general condition and operability and noted on the inspection tag?

♦ ♦ Are fire extinguishers recharged regularly and properly noted on the inspection tag?

♦ ♦ Are fire extinguishers mounted in readily accessible locations?

♦ ♦ Are interior standpipes and valves inspected regularly?

♦ ♦ Are fire alarm systems tested at least annually?

♦ ♦ Are employees periodically instructed in the use of extinguishers and fire protection procedures?

♦ ♦ If you have outside private fire hydrants, were they flushed within the last year and placed on a regular maintenance schedule?

♦ ♦ Are fire doors and shutters in good operating condition?

♦ ♦ Are fusible links in place?

♦ ♦ Is the local fire department well acquainted with the agency, location and specific hazards?

Automatic Sprinklers:

♦ ♦ a. Are water control valves, air and water pressures checked weekly?

♦ ♦ b. Are control valves locked up?

♦ ♦ c. Is maintenance of the system assigned to responsible persons or a sprinkler contractor?

♦ ♦ d. Are sprinkler heads protected by metal guards where exposed to mechanical damage?

♦ ♦ e. Is proper minimum clearance maintained around sprinkler heads?

Housekeeping and General Work Environment

YES NO

♦ ♦ Is smoking permitted in designated “safe areas” only?

♦ ♦ Are NO SMOKING signs prominently posted in areas containing combustibles and flammables?

♦ ♦ Are covered metal waste cans used for oily and paint soaked waste?

♦ ♦ Are they emptied at least daily?

♦ ♦ Are paint spray booths, dip tanks etc., and their exhaust ducts cleaned regularly?

♦ ♦ Are stand mats, platforms or similar protection provided to protect employees from wet floors in wet processes?

♦ ♦ Are waste receptacles provided, and are they emptied regularly?

♦ ♦ Do the toilet facilities meet the requirements of applicable sanitary codes?

♦ ♦ Are washing facilities provided?

♦ ♦ Are all areas of the facility adequately illuminated?

♦ ♦ Are floor load capacities posted in second floors, lofts, storage areas, etc?

♦ ♦ Are floor openings provided with tow boards and railings or a floor hole cover?
♦ ♦ Are stairways in good condition with standard railings provided for every flight having four or more risers?

♦ ♦ Are portable wood ladders and metal ladders adequate for their purpose, in good condition and provided with secure footing?

♦ ♦ If you have fixed ladders, are they adequate, and are they in good condition and equipped with side rails or cages or special safety climbing devices, if required? For loading docks:

♦ ♦ a. Are dockplates kept in serviceable condition and secured to prevent slipping?

♦ ♦ b. Do you have means to prevent car or truck movement when dockplates are in place?

Machines and Equipment

YES NO

♦ ♦ Are all machine operations that expose operators or other employees to rotating parts, pinch points, flying chips, particles or sparks adequately guarded?

♦ ♦ Are mechanical power transmission belts and pinch points guarded?

♦ ♦ Is exposed power shafting less than 7 feet from the floor guarded?

♦ ♦ Are hand tools and other equipment regularly inspected for safe condition?

♦ ♦ Is compressed air used for cleaning limited to 30 psi static pressure?

♦ ♦ Are power saws and similar equipment provided with safety guards?

♦ ♦ Are grinding wheel tool work rests set to within 1/8 inch or less of the wheel?

♦ ♦ Are grinding wheel tongue guards set to within 1/4 inch of the wheel?

♦ ♦ Is there any system for inspecting small hand tools for burred ends, cracked handles, etc.?

♦ ♦ Are compressed gas cylinders examined regularly for obvious signs of defects, deep rusting or leakage?

♦ ♦ Is care used in handling and storing cylinders and valves to prevent damage?

♦ ♦ Are all air receivers periodically examined, including the safety valves?

♦ ♦ Are safety valves tested regularly and frequently?

♦ ♦ Is there sufficient clearance from stoves, furnaces, etc., for stock, woodwork, or other combustible materials?

♦ ♦ Is there clearance of at least 4 feet in front of heating equipment involving open flames, such as gas radiant heaters and fronts of firing doors of stoves, furnaces, etc?

♦ ♦ Are oil and gas fired devices equipped with flame failure controls that will prevent flow of fuel if pilots or main burners are not working?

♦ ♦ Is there at least a 2-inch clearance between chimney brickwork and all woodwork or other combustible materials?

For Welding or Flame Cutting Operations

♦ ♦ Are only authorized, trained personnel permitted to use such equipment?

♦ ♦ Have operators been given a copy of operating instructions and asked to follow them?

♦ ♦ Are welding gas cylinders stored so they are not subject to damage?

♦ ♦ Are valve protection caps in place on all cylinders not connected for use?

♦ ♦ Are all combustible materials near the operator covered with protective shields or otherwise protected?

♦ ♦ Is a fire extinguisher provided at the welding site?

♦ ♦ Do operators have the proper protective clothing and equipment?

Materials

YES NO

♦ ♦ Are approved safety cans or other acceptable containers used for handling and dispensing flammable liquids?

♦ ♦ Are all flammable liquids that are kept inside buildings stored in proper storage containers or cabinets?

♦ ♦ Do you meet OSHA Standards for all spray painting or dip tank operations using combustible liquids?

♦ ♦ Are oxidizing chemicals stored in areas separate from all organic materials?

♦ ♦ Do you have an enforced NO SMOKING rule in areas for storage and use of hazardous materials?

♦ ♦ Are NO SMOKING@ signs posted where needed?

♦ ♦ Is ventilation equipment provided for removal of air contaminants from operations such as production grinding, buffing, spray painting and/or vapor degreasing, and is it operating properly?

♦ ♦ Are protective measures in effect for operations involved with X-rays or other radiation?

Fork Lift Truck Operations:

♦ ♦ Are only trained personnel allowed to operate forklift trucks?

♦ ♦ Is overhead protection provided on high lift rider trucks?

For Toxic Materials:

♦ ♦ Are all materials used in your facility checked for toxic qualities?

♦ ♦ Have appropriate control procedures such as ventilation systems, enclosed operations, safe handling practices, proper personal protective equipment (e.g. respirators, glasses, goggles, gloves, etc.) and medical surveillance of employees being instituted for toxic materials?

Electrical Wiring, Fixtures and Controls

YES NO

♦ ♦ Are the workplace electricians familiar with the requirements of the National Electrical Code (NEC)?

♦ ♦ Do you specify compliance with the NEC for all contract electrical work?

♦ ♦ Do the electrical installations in hazardous dust or vapor areas, meet the NEC for hazardous locations?

♦ ♦ Is all conduit, BX cable, etc., properly attached to all supports and tightly connected to junction and outlet boxes?

♦ ♦ Is there evidence of fraying on any electrical cords?

♦ ♦ Are rubber cords kept free of grease, oil and chemicals?

♦ ♦ Are metallic cable and conduct systems properly grounded?

♦ ♦ Are portable electrical tools and appliances grounded or double insulated?

♦ ♦ Are all ground connections clean and tight?

♦ ♦ Are fuses and circuit breakers the right type and size for the load on each circuit?

♦ ♦ Do switches show evidence of overheating?

♦ ♦ Are switches mounted in clean, tightly closed metal boxes?
♦ ♦ Are all electrical switches labeled to show their purpose?

♦ ♦ Are motors clean and kept free of excessive grease and oil?

♦ ♦ Are motors properly maintained and provided with adequate over current protection?

♦ ♦ Are bearings in good condition?

♦ ♦ Are portable lights equipped with proper guards?
♦ ♦ Are all lamps kept free of combustible material?

♦ ♦ Is your electrical system checked periodically by someone competent in the NEC?

Employee Protection

YES NO

♦ ♦ Is there an attending physician for medical care designated at your agency?

♦ ♦ Do you have one or more employees trained in first aid?

♦ ♦ Are your first aid supplies adequate for the type of potential injuries in your workplace?

♦ ♦ Are there quick water flush facilities available where employees are exposed to corrosive materials?

♦ ♦ Are hard hats provided and worn where any danger of falling objects exists?

♦ ♦ Are protective goggles or glasses provided and worn where there is any danger of flying particles or splashing or corrosive materials?

♦ ♦ Are protective gloves, aprons, shields or other means provided for protection from sharp, hot or corrosive materials?

♦ ♦ Are approved respirators provided for regular or emergency use where needed?

♦ ♦ Is all protective equipment maintained in a sanitary condition and readily available to use?

♦ ♦ Where special equipment is needed for electrical workers, is it available?

♦ ♦ When lunches are eaten on the premises, are they eaten in areas where there is no exposure to toxic materials, and not in toilet facility areas?

♦ ♦ Is protection against the effects of occupational noise exposure provided when the sound levels exceed those shown in Table G-16 of the OSHA noise standard?

♦ ♦ Is there a safety and health committee or group that allows participation of employees in the safety and health activities?

♦ ♦ Is safety and health training for all employees requiring such training been provided and documented?

♦ ♦ Do employees have a copy of the agency's safety and health rules and practices?

LABORATORY SAFETY and HEALTH INSPECTION CHECKLIST

DEPARTMENT/OFFICE

Hazardous Materials

YES NO

♦ ♦ Is this room used for research, teaching, chemical preparation, storage or some other purpose? Please specify

♦ ♦ Are radio nuclides, carcinogens, biologically hazardous agents or chemicals used in this room? Please specify the specific agent. Also please note the disposal method presently used for all agents:

♦ ♦ If disposal is through a public system, have all inherent hazards been neutralized?

♦ ♦ Are emergency procedures established and posted for disruption of the operation in progress, e.g. explosive gases or reactions, poisoning, chemical spill, vapor releases and personal contamination?

♦ ♦ Are known toxic, caustic and other hazardous materials adequately labeled?

♦ ♦ Are mechanical pipetting devices available on all situations where mouth suction would be hazardous?

♦ ♦ Are smoking, eating, drinking and the application of cosmetics prohibited at the experiment area?

♦ ♦ Are flammables properly stored in accordance with Flammable Policy Requirement?

♦ ♦ Are storage areas and/or rooms where hazardous materials are used adequately ventilated?

♦ ♦ Is there a current inventory of hazardous chemical, radioactive materials, and biological agents? If yes, date

♦ ♦ Is there a current safety and health manual that has been developed specially for this laboratory?

Waste Disposal

♦ ♦ Are adequate waste disposal containers provided?

♦ ♦ Has the method of disposal of all solid and liquid wastes been evaluated?

♦ ♦ Are solid wastes, such as discarded glassware, blood collection tubes, specimens and bacteriologic wastes, safely disposed of?

♦ ♦ Are acid bottle carriers used for all large containers (over 500 ml)?

♦ ♦ Are all containers of corrosives, acids and caustic materials properly labeled with a warning as to the hazardous content?

♦ ♦ Are procedures adequate for the disposal of toxic and/or biologically hazardous materials?

♦ ♦ Are there written procedures for the handling and disposal of contaminated specimens, used biologic media and animal remains?

♦ ♦ Are syringes, needles, broken glass and other sharp objects disposed of safely preventing exposure and/or injury to housekeeping and waste handling personnel?

Physical Characteristics

Personal Protective Equipment Compressed Gases
Egress Electrical Hazards
Fire Protection Machine and Instrument Guarding
Ventilation Housekeeping
Signs

Personal Protective Equipment

YES NO

♦ ♦ Is necessary protective equipment provided, used, and maintained in a sanitary, safe and reliable condition?

♦ ♦ Are eye protectors provided where machines or operations present the hazard of flying objects, glass or chemicals?

♦ ♦ Are sufficient washing facilities (including eye washes and deluge showers) available for all persons required to handle liquids that may burn, irritate, etc.?

♦ ♦ Is a respiratory protection program used where needed?

♦ ♦ If employees are allowed to lunch on the premises is an adequate space away from laboratory area provided for that purpose?

Egress

YES NO

♦ ♦ Are all exits maintained to provide free and unobstructed egress from all parts of the room or building?

♦ ♦ Are all exits free of locks or fastening devices that could prevent free escape?

♦ ♦ Are aisles maintained clear and unobstructed for movement to personnel?

ON-THE-JOB INJURY REPORT

Date of report:_____ Date of accident:_____

Time accident occurred:_____

Name of employee:_____

Location accident happened:

_____

_____

Describe how accident happened:

_____

_____

_____

_____

_____

List any Witnesses:

_____

_____

_____

In your opinion, what caused the accident?

_____

_____

_____

_____

What steps could be taken to prevent this accident from happening again?

_____

_____

_____

_____

_____

Signature of Employee

Return completed Injury Report Form to the Human Resources Office as soon after the accident as practical. Questions should be directed to the Director of Human Resources, 716-2111.

Appendix C

STUDENT ACCIDENT REPORT

NAME: _____

STUDENT ID NUMBER:_____

STREET ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE NUMBER: _____

DATE & TIME OF ACCIDENT: _____ _____

LOCATION OF ACCIDENT: _____

DESCRIPTION OF HOW ACCIDENT HAPPENED:_____
_____
_____
_____
_____
_____

WITNESS NAMES & PHONE NUMBERS:
_____
_____
_____
_____

WAS EMERGENCY MEDICAL ASSISTANCE REQUIRED? YES / NO

DESCRIBE MEDICAL TREATMENT RECEIVED: _____
_____
_____
_____
_____

_____
SIGNATURE OF STUDENT SIGNATURE OF FACULTY/STAFF

_____ _____

SIGNATURE OF DEAN STUDENTS, DEAN OF REESE OR DIRECTOR OF PLAINVIEW CENTER

ACCIDENT FORM INSTRUCTIONS

1. This form should be completed anytime a student is involved in an accident while attending classes, labs, clinicals, or participating in an SPC activity.

2. Normally, the student involved in the accident will complete the form. He/She will provide as much detail as possible. In the event the student is unable to complete the form, an SPC faculty/staff member knowledgeable about the situation will complete the form.

3. Once completed, the form should be forwarded to the Dean of Students (Levelland Campus), the Dean of the SPC Reese Center (Reese and BMATC campuses) or the Director of the Plainview Center.

EMERGENCY NUMBERS

In the case of all emergency situations dial 911

Emergency Phone Numbers

Levelland

SPC Police	**Cell 891-8883**	**Ext. 2396**
Dean of Students		**716-2380**
Levelland Police		**894-6164**
Hockley County Sheriff		**894-3126**
Levelland Fire Dept.		**894-3155**

Reese

SPC Police	**Cell 893-5705**	**Ext. 2923**
Dean of Reese Center		**716-4700**
Lubbock Police		**775-2865**
Lubbock County Sheriff		**775-1400**
Lubbock Fire Dept.		**765-5757**

ATC

LISD Police	**Cell 766-1193**	
Associate Dean of ATC		**716-4909**
Lubbock Police		**775-2865**
Lubbock County Sheriff		**775-1400**
Lubbock Fire Dept.		**765-5757**

Plainview

SPC Police	**Cell 252-8925**	
Plainview Center Director		**716- 4301**
Plainview Police		**296-1182**
Hale County Sheriff		**296-2724**
Plainview Fire Dept.		**296-1174**

When an officer is not on duty, one is on call.

Law Enforcement Contacts

Name	***Home***	***Cell***	***Work***
Joe McDowell	**894-4150**	**891-6677**	**ext. 2396**
Billy Cox	**N/A**	**893-3179**	**ext. 2396**
Daniel Villegas	**N/A**	**535-6367**	**ext. 2923**
Travis Nichelson	**N/A**	**893-1085**	**ext. 2396**
Jerry Gray	**N/A**	**392-1184**	**ext. 2923**
Nick Costillo	**N/A**	**239-0818**	**ext. 2396**
Randy Robertson	**797-9951**	**789-6411**	**ext. 2342**
Joe Wise	**894-7109**	**523-8720**	**ext. 2356**
Jimmy Richey	**293-2707**	**893-5566**	**ext. 2335**
Kenny Burns	**748-4954**	**325-574-1547**	**ext. 2357**
Toney Cowan	**894-5508**	**470-7612**	**894-6164**
Tom McCain	**894-4080**	**470-7618**	**894-6194**
RC Cheek	**N/A**	**777-3081**	**894-3126**
SPC Police Levelland		**891-8883**	**ext. 2396**
SPC Police Reese		**893-5705**	**ext. 2923**
SPC Police Plainview		**252-8925**	
LISD Police ATC		**766-1193**	
Levelland Police			**894-6164**
Hockley County Sheriff			**894-3126**
Levelland Dispatch			**894-6194**
Lubbock Police			**775-2865**
Lubbock County Sheriff			**775-1400**
Plainview Police			**296-1182**
Hale County Sheriff			**296-2724**

Plainview	***Cell***	***Shift***
Jeff Stalcup	**729-9462**	**Monday Day; every other Wednesday Night**
Scott Young	**685-1403**	**Tuesday Day**
Chris Hall	**292-7202**	**Tuesday Night**
Robert Gallardo	**292-2511**	**Monday & Thursday Nights**
Jeff Erpelding	**292-1431**	**Every other Wednesday Day & Night**
Michael Carroll	**292-5019**	**Thursday and Friday Days**
Dustin Waters	**283-2188**	**Every other Wednesday Day**

Emergency Contact Numbers

Dr. Jeffrey Young	
Home	**894-4381**
Office	**894-4265**
Cell	**638-1599**
Police Chief Toney Cowan	
Office	**894-6164**
Home	**894-5508**
Cell	**470-7612**
Asst. Chief Tom McCain	
Office	**894-6164**
Home	**894-4080**
Cell	**470-7618**
Sheriff Paul Scarbrough	
Office	**894-3126**
Cell	**777-3081**
Chief Deputy Jeff Holder	
Office	**894-3126**
Cell	**777-3088**
Fire Chief Otis Stark	
Office	**894-3155**
Home	**894-7295**
Cell	**470-7807**
Asst. Fire Chief Bill Durham	
Office	**894-3155**
Cell	**638-0135**
City Manager Rick Osborn	
Office	**894-0113**
Home	**894-8798**
Cell	**470-7801**
EDC Director Shawn Kirkpatrick	
Office	**894-0113**
Cell	**470-7778**
Mayor Waymon Jackson	
Cell	**638-8913**
Home	**894-6291**
Levelland EMS	**894-8855**
Emergency Room	**894-4963 ext. 240**
Red Cross (Lubbock)	**765-8534**
Lubbock Police Dept.	**775-2865**
Lubbock Sherriff	**775-1400**

RADIO CALL NUMBER LISTING FOR SPC OFFICERS AND STAFF FOR EMERGENCY INCIDENTS

950 - Chief Joe McDowell / Home: 894-4150 / Cell: 891-6677
951 - Lt. Billy Cox / Cell: 893-3179
952 - Sgt. Daniel Villegas / Cell: 535-6367
953 - Officer Nick Costillo / Cell 239-0818
954 - Officer Travis Nickelson / Cell: 893-1085
955 - Officer Jerry Gray / Cell: 392-1184

960 – Officer Randy Robertson
961 – Officer Joe Wise
962 – Officer Jimmy Richie
963 – Officer Kenny Burns

A1 – Vice-President Cathy Mitchell
A2 – Dean David Conner
A3 – Associate Dean Urisonya Flunder
A4 – Vice-President Jim Walker
A5 – Director of Maintenance Cary Marrow

***Please keep radio dial on Channel 14. This channel is issued to SPC. You may transmit and receive on this channel.

Only law enforcement personnel can transmit on the remaining emergency services channels.

Please refer to above call numbers when calling the above personnel on channel 14.

BUILDING MAINTENANCE

Emergencies during normal working hours, call 716-2421, 2423, or 2420.
Emergencies after normal working hours, call 716-2440.

Departments & Campuses	Extension
Academic Affairs Office	2208, 2207
Access Program	2358, 2530
Accounting Program (BMATC)	4637
Accounting Program (Levelland)	2251, 2250
Accounts Payable	2407, 2401
Accounts Receivable	2406, 2403
ACT Center (Reese)	4909
Admissions and Records Office (Levelland)	2374, 2375, 2372
Admissions and Records Office (Reese/BMATC)	2902, 4660
Agriculture Program	2311, 2312
Allied Health Department	4622, 4627
Alumni Association	2218
Applied Rehabilitation Psychology (Reese)	4652
Art Program	2261, 2263
Arts and Sciences (Levelland)	2339, 2338
Arts and Science (Reese)	4659, 4657
Arts in Teaching	2173
Assoc. Dean, Continuing Ed & Workforce Dev	4909
Assoc. Dean, Distance Learning	2180, 2179
Assoc. Dean, Student Services (Reese/BMATC)	4600, 4666
Assoc. Dean, Students	2381
Assoc. Dean, Technical Education	2336
Associate Degree Nursing	2391, 2390
Athletics Department	2221, 2220
Auto Collision Repair	2289
Autodesk Training Center	2341, 2349
Auto Service Technology (Levelland Campus)	2296, 2295
Automotive Technology (BMATC)	4911, 4902
Baker Center	2427

Band Hall	2261, 2264
Baptist Student Union	894-7272
Basketball, Men's	2222, 2222
Basketball, Women's	2224, 2101
Behavioral Science Department	2461, 2455
Biology Department	2311, 2306
Bookstore (Levelland)	2399, 2397
Bookstore (Reese/BMATC)	4609, 4610
Building Use & Rental	2394, 2395
Business Administration Department (BMATC)	4653
Business Administration Dept. (Levelland)	2251, 2250
Business Office (Levelland)	2400, 2408
Business Office (Reese)	4676
Business Program (BMATC)	4636, 4638
Campus Police (Levelland)	2396, 891-8883
Campus Police (Reese)	2923, 893-5705
Career Center	2358
Catholic Student Center	894-2268
Chemistry	2311, 2310
CLEP Testing	2367, 2530
Child Development (Reese)	4646, 4645
College Relations Office	2211, 2210
Commercial Art	2348
Commercial Music	2281, 2280
Communication Department	2431, 2451
Computer Center (Administration)	2415, 2417
Computer Information Systems (BMATC)	4670, 4692
Computer Information Systems (Levelland)	2251, 2243
Computer Lab (CIS)	2258, 2251
Computer Networking and Support (BMATC)	4916
Computer Networking and Support (Levelland)	2601, 2369
Computer Networking and Support (Reese)	4665
Continuing Education (Levelland)	2341, 2340
Cont. Education and Workforce Dev. (BMATC)	4906, 4681
Copy Center	2498
Cosmetology	2288, 2287
Counseling Center (Levelland)	2366, 2368
Counseling Center (Reese/BMATC)	4606

Creative Arts Department	281, 2280
Dean of Health Occupation	2391, 2390
Dean of Arts & Sciences (Levelland)	2339, 2338
Dean of Students	2379, 2380
Dean of Technical Education	2336, 2337
Defensive Driving Course	2291, 2342
Development Office	2019, 2020
Diesel Service Technology	2293, 2294
Dining Hall	2394, 2395
Distance Education	2341, 2340
Dual Credit Program	2504, 2340
Electrical and Power Transmission Technology	2285
Electronics Service Technology	2297, 2352
Electronics Technology (Reese)	2924
Emergency	911
Employee Benefits	2204
Employment Verification	2177, 2111
EMS Program (Reese)	4627, 4802
Engineering Graphics and Design Technology	2349, 2351
English Department	2431, 2434
Enrollment Management	2113, 2213
Federal Grant Programs	2416
Finance and Administration Office	2206, 2205
Financial Aid (Levelland)	2192, 2412, 2413, 2414, 2426, 2511
Financial Aid (Reese/BMATC)	4661, 4614
Fine Arts Department	2261, 2260
Fitness Center	2231
Food Center	2394, 2395
Foreign Language	2431, 2449
Forrest Hall	5056
Foundation Office	2218, 2217
Frazier Hall	5000
Geology	2311, 2322
Gilllespie Hall	5205
Government	2461, 2460
Great Western Dining Service	2394, 2395
Health Information Services (Reese)	4644
Health Services	2576, 2376
Health Occupations Division	2391, 2390, 2193, 4622,

	4652
Heating, Air Conditioning and Refrigeration Technology	2353, 2354
History	2461, 2460
Housing, Room & Board	2379
Human Resources Office	2111, 2177
Job Placement, Students (Levelland)	2359, 2366
Job Placement, Students (Reese/ATC)	4608
Journalism	2435, 2448
Lamar Hall	5027
Law Enforcement	2291, 2342
Learning Center (Levelland)	2241, 2240
Learning Specialist (Reese)	4630
Legal Assistant Program (Reese)	4662
Library (Levelland)	2299, 2300
Library (Reese/BMATC)	4682, 4695
Lubbock Co. Community Corrections Facility	765-3348
Machinist Trades Program (BMATC)	4910
Magee Hall	5127
Mail Room	2398
Maintenance Office (Levelland)	2419, 2420
Maintenance Office (Reese)	2917
Mathematics and Engineering Department	2737, 2738
Multicultural and Diversity Services	2563
Music, Band	2264, 2265
Music, Choir	2261, 2260
Music Commercial	2281, 2280
Natatorium	2228, 2499
News and Information	2212
North Sue Spencer Hall	5145
Nursing Department	2391, 2390
Office Technology (Levelland)	2251, 2250
Office Technology (BMATC)	4638, 4917
Parking and Tickets (Levelland)	2379, 2396
Parking and Tickets (Reese)	4600, 4666
Payroll	2609, 2610
Performing Arts Technology	2281, 2279
Personnel Office	2177
Photography Service	2215
Physical Education Department	2223, 2232
Physics	2737, 2639

Plainsman Press Newspaper	2435
Plainview Credit Courses	2340, 2341
Plainview Vocational Nursing Program	291-3655
Plainview Short Courses	4906, 4681
Police (Levelland)	2396, 891-8883
Police (Reese)	2923, 893-5705
President's Office	2201, 2200
Press Box (Track Stadium)	2497
Press Table (Dome)	2418
Professional Driver Training (Reese)	4686
Professional Services and Energy Department	2291, 2342
Provost Office (ATC)	4647, 4648
Psychology	2461, 2458
Publications Service	2216, 2211
Purchasing Office	2106, 2105
Racquetball Courts	2234
Radiologic Technology (Reese)	4629, 4628
Real Estate Program (BMATC)	4653
Registrar's Office	2372, 2374, 2375
Respiratory Care (Reese)	4625
Rodeo Office	2745
Room and Board, Housing	2379
Scholarships	2219, 2217
Science Department	2311, 2316
Short Courses (Levelland)	2341
Short Courses (Lubbock/Plainview)	4906
Smallwood Apartments	5244
Social Science Department	2461, 2460
Sociology	2461, 2458
Sound Technology	2271, 2273
South Sue Spencer Hall	5172
Spanish	2431, 2449
Disability Services (Levelland)	2530, 2529
Disability Services (Reese/BMATC)	4654, 4675
Speech Communication	2431, 2451
SPC-TV	2436
Sports Information	2209
STAR Center	2751, 2750
Stroud Hall	5029
Student Activities Office	2378, 2377
Student Affairs Office	2332, 2360

Student Health Services	2576, 2376
Student Records	2373, 2372, 2374
Student Services Office (Levelland)	2379, 2380, 2381
Student Services Office (Reese/BMATC)	4600, 4666
Surgical Technology (Reese)	4642, 4643
Swimming Pool	2228, 2499
Switchboard	0
Teaching and Learning Center	2241, 2240
Tech Prep/School to Careers (Reese)	4667, 4688
Technical Education Division	2336, 2337
Telecommunications	2436
Testing (Levelland)	2367, 2530
Testing and Learning Center (Reese/BMATC)	4631
Texan Cheerleader Sponsor	2221
Texan Dome	2221
Theatre Arts	2266, 2261
Tom T. Hall Performance Center	2490
Track and Field Office	2227
Transcript Requests	2345
Tuition and Fees	2400, 2408
Tutoring Services (BMATC)	4907
Tutoring Services (Levelland)	2241, 2240
Tutoring Services (Reese)	4631, 4689
Veterans Affairs Office (Levelland)	2361
Veterans Affairs Office (Reese/ BMATC)	4661, 4614
Vice President, Academic Affairs	2208
Vice President, Finance and Administration	2206
Vice President, Institutional Advancement	2218
Vice President, Student Affairs	2332
Visitors Center	2211, 2013
Vocational Nursing (Levelland)	2391, 2390
Vocational Nursing (Plainview)	291-3655
Vocational Nursing (Reese)	4622, 4620
Web Site Development	2960
Welding Technology	2284
Women's Gym	2223, 2231
Workforce Development (Levelland)	2340, 2341
Workforce Development (BMATC)	4681
Workforce Development (Plainview Center)	4320, 4304

Appendix E
Updated 01/11/2013

SOUTH PLAINS COLLEGE
CRISIS MANAGEMENT PLAN
(Section GB of Policy and Procedure Manual)

Introduction
Crisis events are extraordinary events that normally cannot be predicted or controlled. How an institution such as South Plains College responds to these events can influence the impact on the campus community. The complexities of our campus community make advanced planning, training and policy development for catastrophic events a practical necessity.

Crisis Management Team
The South Plains College Crisis Management Team will include SPC personnel whose skills and experience enable them to help the institution in minimizing the impact of occurrences and dealing with the typical human reactions to traumatic incidents. The general purpose of the Team is to support affected members of the SPC community, minimize disruption of scheduled activities of the College, avoid damage to College facilities, prevent personal injury, insure the release of correct information, and reduce liability risks to the College. The Crisis Team will include the following personnel. Also listed are the primary areas of specific responsibility for each member:

Members and Responsibilities
President –

1. Overall direction and administration of the college's response.
2. Communicates with the campus community.
3. Communicates with the Board of Regents.

Vice President for Student Affairs-

1. In the absence of the President and in consultation with other members of the Executive Council provides overall direction and administration of the college's response.
2. Coordinates response of Crisis Team members.
3. Authorizes and coordinates the use of the ENS system.
4. Coordinates communication to and the response of departments within the division.
5. Monitors emergency radio traffic.

Vice President for Academic Affairs –

1. In the absence of the President and in consultation with other members of the Executive Council provides overall direction and administration of the college's response.
2. Coordinates communication to and the response of departments within the division.

3. Formulates strategies for responding to the disruption to and the restoration of the academic process.

Vice President for Finance and Administration –

1. In the absence of the President and in consultation with other members of the Executive Council provides overall direction and administration of the college's response.
2. Coordinates communication to and the response of departments within the division.

Vice President for Institutional Advancement –

1. In the absence of the President and in consultation with other members of the Executive Council provides overall direction and administration of the college's response.
2. Coordinates communication to and the response of departments within the division.
3. Overall direction of media relations.

Dean of Arts and Sciences –

1. Communicate with and support appropriate faculty and students.
2. Assist with the development of strategies to alleviate the disruption to the academic process.
3. Assist with the direction of evacuated or displaced individuals.

Dean of Technical Education –

1. Communicate with and support appropriate faculty and students.
2. Assist with the development of strategies to alleviate the disruption to the academic process.
3. Assist with the direction of evacuated or displaced individuals.

Dean of Health Occupations –

1. Communicate with and support appropriate faculty and students.
2. Assist with the development of strategies to alleviate the disruption to the academic process.
3. Assist with the delivery of medical services should the event require it.
4. Assist with the direction of evacuated or displaced individuals.

Dean of Distance and Continuing Education

1. Communicate with and support appropriate faculty and students.
2. Assist with the development of strategies to alleviate the disruption to the academic process.
3. Assist with the direction of evacuated or displace individuals.

Associate Dean of College Relations –

1. Coordinate all media requests and releases.
2. Communicate with all departmental members.
3. Assist with the direction of evacuated or displaced individuals.

Director of Guidance and Counseling -

1. Provide assistance for counseling services for affected members of the community.
2. Communicate with departmental members.
3. Assist with the direction of evacuated or displaced individuals.

Dean of Students

1. Primary administrative communication link with Campus Police and first responders.
2. In the absence of the Vice President for Student Affairs activates the ENS system.
3. Directs the efforts of Student Health Services
4. Communicate with departmental members.
5. Monitors emergency radio traffic.
6. Assist with the direction of evacuated or displaced individuals.

Associate Dean of Students –

1. Coordinate and monitor all issues affecting student housing.
2. In the absence of the Vice President for Student Affairs activates the ENS system.
3. Communicate with departmental members.
4. Monitors emergency radio traffic.
5. Assist with the direction of evacuated or displaced individuals.

Associate Dean of Information Technology

1. Monitor and maintain network.
2. Provide necessary technical assistance and support.
3. Communicate with all departmental members.
4. Assist with the direction of evacuated or displaced individuals.

Dean of SPC Reese Center –

1. Primary administrative contact for events affecting the Reese Center.
2. In the absence of the Vice President for Student Affairs activates the ENS system for events affecting the Reese Center.
3. Monitors emergency radio traffic.
4. Assist with the direction of evacuated or displaced individuals.

Director Plainview Center

1. Primary administrative contact for events affecting the Plainview Center.
2. Communicate with all members of the Plainview Center.
3. Assist with the direction of evacuated or displaced individuals.

Associate Dean of Workforce Development ATC

1. Primary administrative contact for events affecting the ATC Center.
2. Communicate with all members of the ATC Center.
3. Assist with the direction of evacuated or displaced individuals.

Campus Police Department and Law Enforcement Program Personnel

1. Provide communication and direction for law enforcement and other emergency first responders.
2. Communicate in a safe and timely manner with the Dean of Students on the Levelland Campus or the Associate Dean of Students at the Reese Center.

3. Assist with the direction of evacuated or displaced individuals.

Student Health Service
1. Provide medical assistance as directed by the Dean of Students.
2. Assist with the direction of evacuated or displaced individuals.

Director of the Physical Plant
1. Provide logistical support to campus control and access as directed by law enforcement.
2. Provide oversight and control of campus utilities and facility control.
3. Communicate with all members of the department.
4. Assist with the direction of evacuated or displaced individuals.

• Other personnel or students as needed.

Procedures
Because of the need for quick response initially, members of the Crisis Team are expected to act appropriately and expeditiously when a crisis threatens. The President or designee shall determine by the nature of the crisis or the severity of the threat if the Team needs to meet to formulate a strategy to respond.

Central Command Center
The President or designee will determine if a Central Command Center is necessary. A Central Command Center may be necessary for events that are exceptionally large in scope or may require an extended period of time to coordinate a response. In the event that a Central Command Center is necessary, a number of locations may be utilized depending on the situation.

• Levelland Campus - Dean of Students Office suite will be the primary location with the President's Office, Presidents Conference Room, Vice President for Student Affairs Office, College Relations Conference Room and the Technical Arts Administrative Offices serving as other possibilities.
• Reese Center - Building 8 Conference Room or RC317
• ATC Center – Reese Center Building 8
• Plainview Center- Assigned emergency facilities by City of Plainview

Emergency Notification Procedures
When an emergency crisis situation occurs, 911 should be notified immediately. In some crisis situations the 911 system may become overwhelmed by a large volume of reports. Callers should remain on the line and follow any instructions they are given.

Once the 911 system is activated, Campus Police along with other appropriate law enforcement agencies and emergency medical services will respond.

At the earliest and safest moment possible after the initial response, Campus Police will notify the most readily available and appropriate administrator from the following list:
• Dean of Students

• Associate Dean of Students
• Dean of Reese Center
• Director of Plainview Center
• Associate Dean of Workforce Development BMATC

The notified administrator will immediately inform the Vice President for Students Affairs who will notify the President and other members of the Executive Council. Effective communication among all members of the team and the campus community is essential. In the event of a crisis situation at any campus location an emergency notification will be sent to the appropriate campus population relaying as much information as pertinent and necessary to provide for the safety of students, faculty, staff and visitors. The emergency notification will be sent over all available and appropriate media channels including but not limited to PA announcements, e-mail, phone messages, text messages, etc. The emergency notification procedure is detailed in Appendix F of the “SPC Safety and Health Plan”.

Trained Emergency Notification Personnel
Vice President for Student Affairs
Dean of Students
Dean of Students Reese
Associate Dean of College Relations
Director of the Plainview Center
Associate Dean of Work Force Dev. ATC
Other Assigned Personnel as Needed

The ENS system should only be used for emergency notification when the following conditions are met:

1. Is there a threat to the safety of any or all of the campus community?
2. Is there adequate factual information regarding the emergency?
3. Will the dissemination of this information have a positive safety impact on the campus community?

Notifications will be brief and to the point with primary focus on informing the public on action to take in order to protect themselves. Additional messages will be sent as necessary to provide critical updates to the situation.

All members of the Board of Regents will be advised by the President as soon as possible, and be kept informed frequently. A special meeting of the Board may be desirable. Regents will be provided with a complete report including the College’s version of the events, details of actions being taken, and a look at what lies ahead.

In all cases, whether the emergency or threat of emergency involves physical facilities, personal injury the privacy of the persons involved in the crisis must be honored. The President or his designee will work with all appropriate departments and personnel to verify the facts, control media access and make news release or statements that will represent the official position of the College on the situation.

Campus Police or the officer on duty shall be in charge of contacting additional police investigators, the Justice of Peace and coroner if necessary.

When the incident involves a death either on campus or at College sponsored activity, whatever the cause of death, the Campus Police should be immediately notified. If the death occurs on College property, the Campus Police will be in charge of the scene. In any case, the Campus Police will be responsible for notifying the proper authorities of the death, including the President, Vice President for Student Affairs and other members of the Crisis Management Team.

The family of the injured or deceased will be notified of the circumstances surrounding the incident as soon as possible. The notification will be made by the President or his representative as dictated by the circumstances at the direction of the President. Other contacts may include college legal counsel, counselors and ministers. A member of the South Plains College staff may be designated by the President to conduct a follow-up visit with the family where circumstances warrant.

All incidents that might be considered as crises will be documented through the standard Campus Police incident reporting process. Any incidents that result in injury or death will be reported through recognized channels under Campus Crime Reporting Act by the Campus Police. The Crisis Management Team will meet following emergencies to evaluate crisis responses and suggest necessary changes to policy and procedure. Further investigations by the Campus Police may be recommended by the Team.

Training
Regular and meaningful training is essential for successful responses to emergency situations. Individuals and specific elements of an emergency response plan require multiple training levels with varying frequencies.

ENS System Training
Authorized administrators of the ENS system will individually and on a reoccurring basis practice in the ENS “Training Mode”. A formal training review meeting will be held for all authorized users at the beginning of the Fall and Spring semesters. The Vice President for Student Affairs will be responsible for scheduling this training and review.

Radio and Phone Communication Training
Communication during an emergency is critical to a successful response. Members of the Crisis Management team must have current contact information and assigned members must be prepared and competent in the use of emergency radio communication. The Dean of Students is responsible for updating member’s contact information and training and testing radio equipment and communication at the beginning of each Fall and Spring semester.

Table Top Exercises
It is hopeful that emergencies either never happen or are at least infrequent. It is however, the infrequencies of these events that create ineffective reactions and response. Most members of the Crisis Management Team primary job responsibilities

do not include a regular review of their roles and responsibilities during an emergency event unless structured opportunities are scheduled. The Vice President for Student Affairs in conjunction with the Dean of Students, Dean of Reese Center, Associate Dean of Students and Campus Police Department will be responsible for developing and implementing an annual review of the Crisis Management Plan including table top exercises and/or mock drills that include participation by all members of the Crisis Management Team.

Educating the Campus Community
Informing the campus community of basic information regarding safety procedures in advance of an emergency is critical for a successful response at the time of an emergency. The Dean of Students, Dean of Reese Center and Associate Dean of Students will be responsible for providing and presenting specific safety information to the campus community including students, faculty and staff at the beginning of each Fall and Spring Semester.

Evacuations
Evacuations by their very nature are extremely chaotic events. Evacuations will be authorized by the President or designee. In the event that a building(s) must be evacuated, emergency personnel including law enforcement and fire department as well as other first responders will be responsible for notifying occupants of the evacuation. Basic evacuation steps for faculty and staff occupants of an affected building would include:

1. Inform students and other occupants to gather their personal belongings and exit the building immediately in an orderly fashion.
2. Assist all others that may need additional assistance.
3. Inform students to listen for and follow instructions of emergency and administrative personnel.
4. Exit the building to a safe distance or as directed by emergency and administrative personnel.

In the event of an evacuation every effort will be made to make the displaced occupants of the affected building(s) as comfortable and safe as possible. Only at the time of the event will it be possible to determine the best and safest strategy.

The following areas and facilities will be primary locations to temporarily house displaced individuals:

Levelland Campus - Texan Dome, PE Complex, Track and Field Stadium, Student Center, Fine Arts Theatre

Reese Center- SPC buildings 8 and 3, Reese Conference Center 1130, Reese Center buildings 310 and 210.

ATC Center - Reese Center Building 8

Plainview Center - Assigned emergency facilities by City of Plainview

Closed Campus
Only the President or designee can authorize the closure of a campus in an emergency. Campus Police, local law enforcement, physical plant and other emergency personnel will be responsible for prohibiting access to campus. Administrative, faculty and staff personnel will be responsible for informing the campus population to exit campus.

The Associate Dean of Students will be responsible for the coordination and direction of Student Residence Halls in the event of a campus emergency.

Weather Emergencies
The Dean of Students, Dean of the Reese Center, Director of the Plainview Center and Campus Police have the primary responsibility for monitoring weather conditions in their respective locations. The Dean of Students is responsible for maintaining emergency weather alert radios at all locations. In the event of a tornado warning every available means of communication will be used to inform the members of the affected location to take cover as soon as possible. Communication and information methods may include ENS system, telephone systems, e-mail, sirens, PA announcement, word of mouth, NOAA weather alert radios, etc.

The Dean of Students office will provide information to the campus community on the basic precautions and safety recommendations for severe weather prior to severe weather season each Spring.

Emergency Numbers
Emergency numbers and community resource numbers can be found in Appendix D.

Campus Assessment, Response and Evaluation (CARE) Team

POLICY/ PROCEDURE

South Plains College is committed to providing learning opportunities that are high quality, accessible, flexible and affordable in a learning environment that is innovative, stimulating, compassionate, safe, diverse and supportive of the community. On rare occasions the College may be required to respond to students who may be in crisis or whose mental, emotional or psychological health condition may directly threaten or disrupt the learning environment. The CARE Team has been created to provide a caring, confidential program of identification, intervention and response in order to provide students with the greatest chance for success.

PURPOSE

The CARE Team is established to:

- Monitor and/or provide a systematic response to situations involving students whose behavior or mental, emotional or psychological health condition may be disruptive or harmful to themselves or others in the College community or students who may pose a direct threat to themselves or to the health and safety of the members of the College community.
- Provide recommendations regarding reasonable accommodations that may be provided to students with mental health issues to enable the student to remain safely in their educational program.
- Provide a multi-disciplinary panel of medical, law enforcement and administrative professionals to consider whether a student meets the standard to be involuntarily withdrawn from the university.

COMPOSITION

The Care Team Committee consists of the Vice President for Student Affairs, Dean of Students, Dean of SPC Reese Center, Associate Dean of Students, Student Health Nurse, and the Director of Guidance and Counseling. The composition of the CARE Team may be adjusted as needed based upon the situation. This committee will meet bi-monthly and as needed.

RECORDS

Records created by the CARE Team relating to individual students are educational records protected in accordance with the Family Education Rights and Privacy Act (FERPA). Records are maintained in the Office of the Vice President for Student Affairs and requests for access and for release of information must be reviewed by the Vice President for Student Affairs.

REFERRALS

Any employee of South Plains College who has concern for the well-being or safety of a student or the College community, or who has reason to believe that a student may pose a direct threat to themselves or the College community, may refer a student to the CARE Team for an individualized assessment. To refer a student to the CARE Team, the employee should complete and submit the Care Team Referral Questionnaire found on the employee page of MySPC.

ACTIONS

The CARE Team will conduct an individualized, informal assessment of a referred student's present ability to safely participate in their educational program. This may include:

- Consultation with administrators, faculty, staff and other students who may have witnessed or been impacted by specific behaviors of the student.
- Consultation with the student, as well as family members if appropriate.
- Consultation with mental health or other medical professionals as may be permitted by law.

As a result of the assessment, action taken may include:

- Continue to monitor the situation
- Refer the student to appropriate resources
- Refer the student to the Dean of Students to consider possible violations of the Student Code of Conduct
- Recommend changes to the student's educational program or housing assignments
- Encourage the student to consider taking a voluntary leave of absence
- Administrative withdrawal of the student (The student will be afforded a hearing and appeal procedures as with any other administrative withdrawal. A student who is administratively withdrawn by CARE team recommendation may not seek to reenroll or be readmitted to the College before the start of the next term. The student may only be reenrolled or readmitted to the College after confirmation by the CARE Team that the conditions that caused the withdrawal are no longer present. The CARE Team may require any documentation or evaluation that it deems necessary to consider the possible readmission or re-enrollment. The student is not entitled to a hearing on the determination.)

EXAMPLES OF REASONS FOR CONCERN

Abnormal behaviors are overt actions, omissions to act, or verbal or written statements, which would not be consistent with the actions or statements of a reasonable, prudent person under similar circumstances. This may include:

- Changes in behavior (i.e. withdrawn, irritable, confrontational, depressed, angry),
- Negative or disruptive attention seeking in the classroom that is viewed as problematic.
- Threats to harm self or others.
- Openly confrontational with faculty, staff and/or other students.
- Passive / aggressive acting out

EMERGENCY PROCEDURES

In dealing with students with emotional problems or abnormal behavior, there may be instances that are dangerous to the student or others. If a situation appears to be life-threatening or dangerous to others, Campus Police or 911 should be called. The police will determine if the student must be restrained or hospitalized.

REVIEW

Review of this student affairs policy/procedure will occur by February 15 of each year by the CARE team with recommendations for revisions presented to the Dean of Students by March 1.

Suspicious Mail

Guidelines Issued for Handling Suspicious Letters, Packages
(As of 10/15/01)

In light of recent anthrax-related incidents and scares around the country, the Texas Department of Health (TDH) is providing the following steps for handling suspicious letters and packages. The steps are from a health advisory issued by the U.S. Centers for Disease Control and Prevention (CDC).

Though several instances involving suspicious letters or packages have been reported and investigated in Texas, TDH officials say no anthrax bacteria has been found in any of them.

Steps for handling a suspicious unopened letter or package:

- Do not shake or empty the contents of the envelope or package.
- Put the envelope or package in a plastic bag or other container to prevent leakage the contents. If a bag or container is not available, cover the envelope or package with anything (clothing, paper, trash can).
- Do not remove the covering.
- Leave the room and close the door or section off the area. Keep others from entering.
- Wash your hands with soap and water.
- Report the incident to local police or other law enforcement officials.
- If the incident occurs in the workplace, also notify building security or a supervisor.
- Make a list of all people in the room or area when the letter or package was recognized. Provide the list to law enforcement and public health officials.

Steps to follow if powder from a suspicious envelope or package has spilled out:

- Do not try to clean up the powder.
- Cover the spilled contents immediately with anything (clothing, paper, trash can). Do not remove the covering.
- Leave the room and close the door or section off the area. Keep others from entering.
- Wash your hands with soap and water.
- Report the incident to local police or other law enforcement officials. If the incident occurs in the workplace, also notify building security or a supervisor.
- Remove heavily contaminated clothing as soon as possible. Place it in a plastic bag or other container that can be sealed. Give the bag of clothing to emergency responders.
- Shower with soap and water as soon as possible. Do not use bleach or other disinfectant on your skin.
- Make a list of all people in the room or area, especially those who had actual contact with the powder. Provide the list to law enforcement and public health officials.

In incidents where aerosolization of a biological agent is suspected:

- Turn off local fans or ventilation units in the area.
- Leave the room and close the door or section off the area. Keep others from entering.
- Dial 911 to report the incident to local police and the local FBI field office. If the incident occurs in the workplace, also notify building security or a supervisor.
- Shut down the air handling system.
- Make a list of all people in the room or area. Provide the list to law enforcement and public health officials.

CDC tips for identifying suspicious letters or packages:

Some characteristics of suspicious packages and letters include the following…

- Excessive postage
- Handwritten or poorly typed addresses
- Incorrect titles
- Title, but no name
- Misspellings of common words
- Oily stains, discolorations or odor
- No return address
- Excessive weight
- Lopsided or uneven envelope
- Protruding wires or aluminum foil
- Excessive security material such as masking tape, string, etc.
- Visual distractions
- Ticking sound
- Marked with restrictive endorsements, such as “Personal” or “Confidential”
- Shows a city or state in the postmark that does not match the return address

South Plains College

Bomb Threat Call Sheet

What did the caller say?

_____
_____
_____
_____
_____

QUESTIONS TO ASK:

1. When is bomb going to explode?
2. Where is it right now?
3. What does it look like?
4. What kind of bomb is it?
5. What will cause it to explode?
6. Did you place the bomb?
7. Why?
8. What is your address?
9. What is your name?

Number at which call was received:_____
Time: _____ Length of call:_____ Date of call: _____
Sex of caller: _____ Race: _____Age: _____

If voice is familiar, who did it sound like?_____

CALLERS VOICE

_____ Calm	_____ Distinct	_____ Clearing throat
_____ Angry	_____ Slurred	_____ Deep breathing
_____ Excited	_____ Nasal	_____ Cracking voice
_____ Slow	_____ Stutter	_____ Disguised
_____ Rapid	_____ Lisp	_____ Accent

_____ Soft	_____ Raspy	_____ Whispered
_____ Loud	_____ Deep	_____ Normal
_____ Laughter	_____ Ragged	_____ Crying

BACKGROUND SOUNDS:

_____ Street noises	_____ Factory machinery
_____ Crockery	_____ Animal noises
_____ Voices	_____ Clear
_____ PA system	_____ Static
_____ Music	_____ Local
_____ House noises	_____ Long distance
_____ Motor	_____ Booth
_____ Office machinery	Other _____
	_____
	_____

THREAT LANGUAGE:

_____ Well spoken (educated)	_____ Incoherent
_____ Foul	_____ Taped
_____ Irrational	_____ Message read by threat maker

REMARKS:

_____
_____
____
_____
____
_____
____

Report call immediately to: SPC CAMPUS POLICE 806-891-8883

Reported by:

Name _____

Position _____

Phone number _____

Date _____

Bomb Threat Protocol

The majority of bomb threats that are called in to targets are made with the intent of disrupting normal business. **However, every bomb threat must be considered real until investigated to ensure the safety of building occupants.** Normally, the call will be very brief, but if you do get a call, attempt to keep the caller on the line:

A. Make a reasonable effort to transfer the call to campus police at extension 2396.

B. Try to get as much information as possible or for quick reference, use the SPC Campus Police checklist.

C. Upon hanging up, immediately call **campus police** and give specific details. If possible, use a confidential manner of communication to reduce the possibility of panic.

D. The Chief of Campus Police or his/her designate, in consultation with the administration, makes the decision whether to evacuate the building.

E. If the decision is made to evacuate, an announcement is made through the Emergency Notification System, via phone, email and text.

F. If notified to evacuate, make a quick visual sweep of your area for any unusual items and proceed outside to a distance of at least 100 yards, or as otherwise directed by the ENS announcement.

Testing Center – Emergency Plan

Appendix I

Emergency Evacuation – Computer Based Testing

In the event of an emergency evacuation, our first concern must be for the safety of our examinees and our staff. If an emergency occurs, note the testing time that has elapsed. Instruct the examinees and staff to leave the building. Lock the test room and leave immediately.

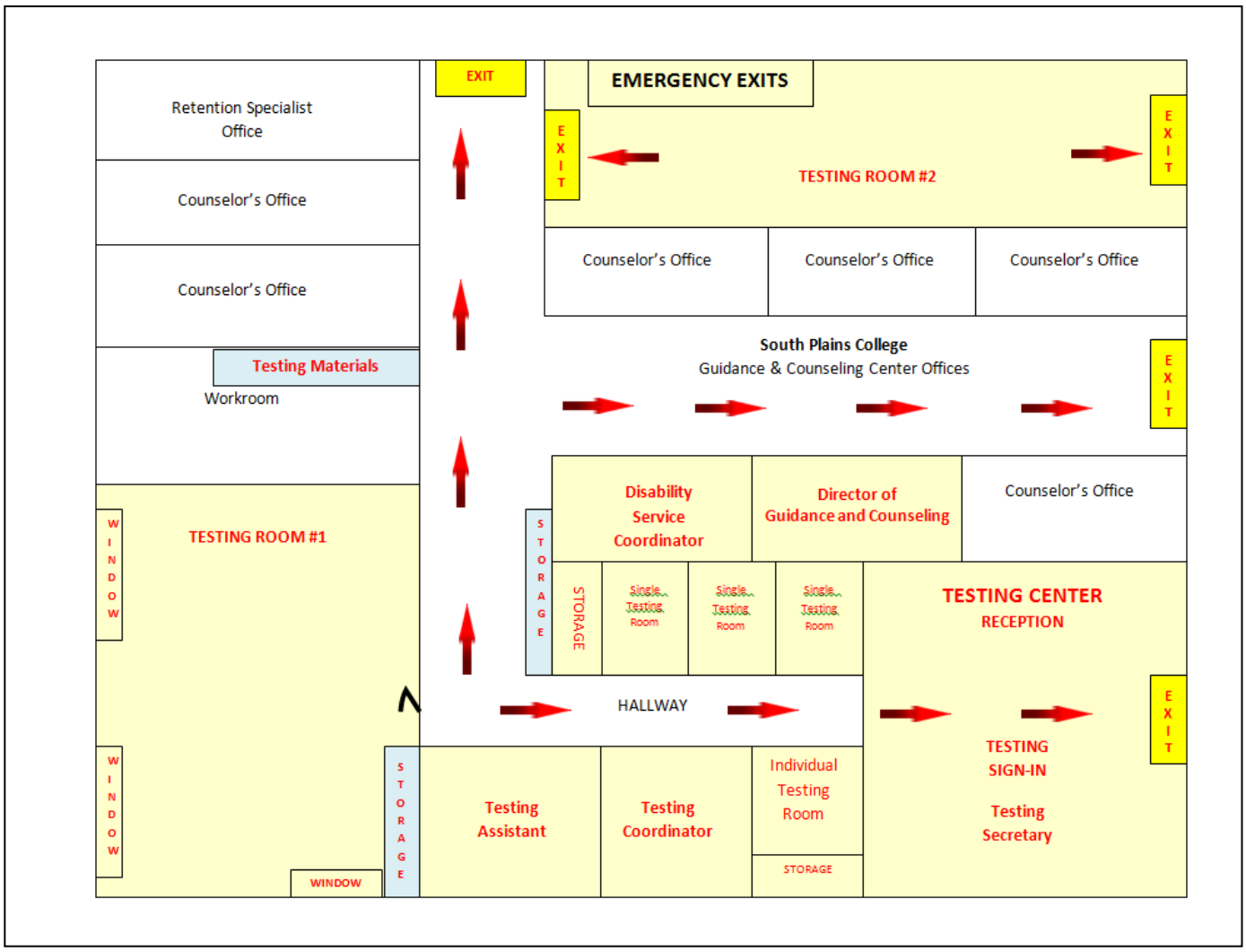
In the event of severe weather or tornado warnings, individuals should seek the safest areas possible away from exterior windows and doors and along the lowest interior portions of the building. This would be inside hallway leading to the testing room. Examinees are to be instructed to crouch and face interior walls with their hands behind their heads and their head between their knees. They are to remain in this position until notified by college personnel that the impending danger is no longer present.

Emergency Evacuation – Paper/Pencil Based Testing

In the event of an emergency evacuation, our first concern must be for the safety of our examinees and our staff. If an emergency occurs, note the testing time that has elapsed and if time permits, have examinees close their test booklets and place their answer documents inside them. Collect the booklets only if time permits. Instruct the examinees and staff to leave the building. Lock the test room and leave immediately.

In the event of severe weather or tornado warnings, individuals should seek the safest areas possible away from exterior windows and doors and along the lowest interior portions of the building. This would be inside hallway leading to the testing room. Examinees are to be instructed to crouch and face interior walls with their hands behind their heads and their head between their knees. They are to remain in this position until notified by college personnel that the impending danger is no longer present.

Emergency Exits – Levelland Campus - Testing Center



CHEMICAL HYGIENE PLAN FOR LABORATORIES

South Plains College
1401 South College Avenue
Levelland, TX 79336

JOB # SOU5100.RA

Prepared:

December 5, 2011

Prepared By:

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Appendices

TERMS AND DEFINITIONS

Action Level
A concentration designated in 29 CFR 1910, Subpart Z for a specific substance. This value is calculated as an 8-hour, time-weighted average and initiates certain required activities (e.g., exposure monitoring and medical surveillance).

Acute Toxicity
The toxic effect of a substance that has a rapid onset, sharp or severe effects, and pronounced symptoms; this effect is not chronic.

American Conference of Governmental Industrial Hygienists (ACGIH)
An independent professional organization that prepares an annual list of recommended exposure guidelines for hazardous chemicals in the occupation setting. See "threshold limit value".

Chemical Emergency
An incident involving chemicals becomes an emergency whenever there is injury of personnel, an unplanned release to the environment, an explosion, or an unplanned or uncontrolled fire.

Chemical Hygiene Plan
A written program developed and implemented by the employer that sets forth procedures, equipment, personal protective equipment, and work practices to (1) protect individuals from the health hazards caused by hazardous chemicals used in a particular workplace, and (2) meet the requirements of paragraph (e) of 29 CFR 1910.1450.

Chronic Toxicity
The toxic effect of a substance that develops gradually, lasts for a long time, and may have a delayed onset after exposure; this effect is not acute.

Combustible Liquid
Any liquid having a flash point at or above 100ºF (37.8ºC) but below 200ºF (93.3ºC), except for mixtures having components with flash points of 200ºF (93.3ºC) or higher, the total volume of which makes up 99% or more of the total of the mixture.

Compressed Gas

1. A gas or mixture of gases in a container that has an absolute pressure exceeding 40 psi at 70ºF (21.1ºC).
2. A gas or mixture of gases in a container that has an absolute pressure exceeding 104 psi at 130ºF (54.4ºC) regardless of the pressure at 70ºF (21.1ºC).
3. A liquid having a vapor pressure that exceeds 40 psi at 100ºF (37.8ºC), as determined by ASTM D-323-72.

Designated Area
An area that may be used for work with "select carcinogens," reproductive toxins, or substances that have a high degree of acute toxicity. A designated area may be an entire laboratory, an area of a laboratory, or a device (e.g., a laboratory hood).

Designated Carcinogen
A carcinogen that meets the criteria for OSHA "select carcinogen" or falls into Category 1 or 2 of the ACGIH's list of carcinogens.

Explosive
A chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Flammable Chemical
A chemical that falls into one of the following categories:

1. *Aerosol, Flammable* – an aerosol that, when tested by the method described in 18 CFR 1500.45, yields a flammable projection that exceeds 18 inches at the full valve opening or a flashback (a flame extending back to the valve) at any degree of the valve opening.

2. *Gas, Flammable* – (a) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13% or less by volume. (b) A gas that, at ambient temperatures and pressure, forms a range of flammable mixtures with air that is more than 12% of volume regardless of the lower limit.

3. *Liquid, Flammable* – Any liquid having a flash point below 100ºF (37.8ºC), except for mixtures having components with flash points of 100ºF (37.8ºC) or higher, the total of which makes up 99% or more of the total volume of the mixture.

4. *Solid, Flammable* – A solid, other than a blasting agent or explosive (as defined by 29CFR 1910.109[a]), that may cause fire through friction, absorption change, or retained heat from manufacturing or processing, or that can be ignited readily and when ignited burns vigorously and persistently thereby creating a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites sand burns with a self-sustained flame at a rate greater than 0.1 inches per second along its major axis.

Hazardous Chemical
A chemical for which there is statistically significant evidence (based on at least one study conducted in accordance with established scientific principles) that acute or chronic health effects may occur if individuals are exposed. The term "health hazard" includes chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic systems, or agents that damage the lungs, skin, eyes, or mucous membranes.

High Acute Toxicity
Substances with the following effects (from 29 CFR 1910.1200):

1. Median LD50 of 50 mg/kg orally in albino rats, total dosage 200-300g.
2. Median LD50 of 200 mg/kg by continuous contact for 24 hours with the bare skin of albino rabbits weighing between 2 and 3 kg.
3. Median LC50 in air of 200 ppm (or mg/L) continuous inhalation for 1 hour.

Laboratory
A facility where the "laboratory scale use of hazardous chemicals" occurs or a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

Laboratory Scale
Work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safety manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

Laboratory Use of Hazardous Chemicals
The handling or use of such chemicals where all of the following conditions are met:

1. Chemical manipulations are carried out on a laboratory scales.
2. Multiple procedures or chemicals are used.
3. The procedures involved are neither part of a production process, nor in any way simulate one.
4. "Protective laboratory practices and equipment" are available and are commonly used to minimize the potential for exposure to hazardous chemicals.

LC50
"Lethal concentration, 50% is the statistical calculation of the airborne level of a substance that, if inhaled, is fatal to 50% of the test organisms. This concentration is usually expressed in units of mass over volume (e.g., mg/m^3) or in parts per million (ppm). Species and exposure conditions must be specified.

LD50
"Lethal dose, 50%" is that statistical calculation of the amount of a substance that is fatal to 50% of the test organisms. This value is usually expressed in units of mass per body weight of the tested species (e.g., mg/kg). Exposure route, species, and duration of exposure conditions must be specified.

Organic Peroxide
An organic compound that contains the bivalent –0-0- structure. Such a compound may be considered as a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms have been replaced by an organic radical.

Oxidizer
A chemical, other than a blasting agent or explosive (as defined in 29 CFR 1910.109[a]), that initiates or promotes combustion in other materials, thereby causing fire of itself or through the release of oxygen or other gases.

Particularly Hazardous Substances
For the purpose of this supplement, these include OSHA "select carcinogens," reproductive toxins, and substances with a high degree of acute toxicity.

Permissible Exposure Level (PEL)
The OSHA exposure limits for hazardous chemicals in the workplace. These limits are contained in 29 CFR 1910, Subpart Z.

Physical Hazard
A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, an explosive, a flammable, organic peroxide, an oxidizer, a pyrophoric, an unstable (reactive), or a water reactive.

Protective Laboratory Practices and Equipment
Laboratory procedures, practices, and equipment accepted by laboratory health and safety experts as effective, or those that employees/students can show to be effective in minimizing the potential for exposure to hazardous chemicals.

Reproductive Toxins
Chemicals that affect reproductive capabilities, including chromosomal damage (mutations) and effects on fetuses (teratogenesis).

Select Carcinogen
Any substance that is:

1. Regulated by OSHA as a carcinogen.

2. Listed under the category "known to be carcinogens" in the National Toxicology Program's (NTP's) *Annual Report on Carcinogens*.

3. Listed under Group 1 (carcinogenic to humans) by the *International Agency for Research on Cancer (IARC) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man.*

4. Listed in either Group 2A or 2B by IARC or under the category "reasonably anticipated to be carcinogens" by NTP. Such a substance causes statistically significant tumor incidence in experimental animals based on any of the following criteria:

    a. After oral dosages of less than 50 mg/kg of body weight per day.

b. After inhalation of 6-7 hours per day, 5 days per week, for a significant part of a lifetime of levels less than 10 mg/m3.

c. After repeated skin application of less than 300 mg/kg of body weight per week.

Threshold Limit Value (TLV)
Airborne concentrations of substances to which it is believed that nearly all laboratory workers may be repeatedly exposed, day after day, without adverse health effects.

Unstable (Reactive)
A chemical that, in its pure state or as produced and transported, will vigorously polymerize, decompose, condense, or become self-reactive under conditions of shock, pressure, or temperature.

Water Reactive
A chemical that reacts with water to release a gas that is flammable or a health hazard.

COMPLIANCE INSPECTION PLAN REVIEW PAGE

In accordance with the Occupational Safety and Health Administration (OSHA) Regulation "Occupational Exposure to Hazardous Chemicals" codified as 29 CFR1910.1450 (e)(4) a review and evaluation of this Chemical Hygiene Plan (CHP) is conducted at least annually to ensure the effectiveness of the plan. As a result of this review and evaluation, the college will amend the CHP within one month of the review to include more effective procedures and controls if the plan proves to be ineffective in: (1) protecting students, faculty, and staff from health hazards associated with hazardous chemicals in the laboratory, and (2) keeping exposures below the regulatory limits specified in 29 CFR 1910, Subpart Z.

Review Date	Plan Update Required (yes/no)	Brief Description of Required Revisions (if necessary)	Signature Certifying to Statement Below	Date of Amendment (if necessary)

Certification Statement:
"I have completed a review and evaluation of the CHP for South Plains College and will/will not amend the Plan as a result."

CHEMICAL HYGIENE PLAN LOCATIONS

Per OSHA Regulation 29 CFR 1910.1450 (e)(2), this Chemical Hygiene Plan (CHP), shall be readily available to employees/students, faculty, and staff of South Plains College (SPC) as well as to the regulatory agencies, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designated representative upon request.

Additional documentation and references made available at the campus include:

- South Plains College Faculty Handbook
- South Plains College Safety and Health Plan, Revised October 9, 2005;
- A copy of the "Occupational Exposure to Hazardous Chemical" standard. (Also referred to as the OSHA Laboratory Standard.);
- The chemical inventories for the laboratories at SPC and off campus teaching sites;
- Copies of Material Safety Data Sheets (MSDS's) for chemicals used in laboratories at SPC; and
- Additional reference materials relating to laboratory safety and the use of hazardous materials.

In order to ensure that the plan is readily available, a copy of the plan will be maintained in the following locations:

- Science Building
  - Chemical Safety Officer's Office
  - Biology Lab Supervisor
  - Chemistry Lab Supervisor
  - Director of Physical Plant
- Campus Police Office

An electronic copy will be maintained via the internet on SPC's website.

In case of an emergency when the Chemical Safety Officer is not immediately available, contact Campus Police (806) 894-9611 extension 2396 or (806) 891-8883 to gain access to the documentation as referenced above.

In all other cases, viewing of the documentation and references must be arranged through:

Professor Mitch Cottenoir
Chemical Safety Officer
Email: mlcottenoir@southplainscollege.edu
S-109
Telephone: (806) 894-9611 extension 2326

As revisions to the CHP are made, the copy stored at the above location(s) will be updated.

1.0 INTRODUCTION

SPC has developed this Chemical Hygiene Plan (CHP) to meet the following objectives:

- Educate and protect students, faculty and staff from health concerns associated with the use of hazardous laboratory chemicals.
- Assure that chemical exposures are not in excess of the permissible exposure limit adopted by OSHA.
- Protect college visitors and property against potentially dangerous accidents associated with the handling, storage and disposal of hazardous chemicals.

The CHP follows the general format and content of the Model Chemical Hygiene Plan provided by the Laboratory Safety Institute and modified as appropriate to reflect the current practices at SPC.

This CHP also satisfies the requirements of the U.S. Department of Labor, Occupational Safety and Health Administration, 29 CFR Part 1910.1450, *Occupational Exposures to Hazardous Chemicals in Laboratories* and commonly referred to as the "Laboratory Standard" (Available in Appendix J). Although some of the policies and practices described in this CHP may not be part of the OSHA Laboratory Standard, they have been deemed by SPC as appropriate for maintaining a safe environment for students, faculty and staff.

Background

Before 1990, OSHA's approach to controlling occupational exposure to hazardous chemicals was to develop lists of permissible exposure limits (PELs), substance-specific standards, and the health hazard communication standard (29 CFR 1910.1200 and 29 CFR 1910.1200 Appendices A, B, C, D, and E). These regulations address industrial applications where workers typically received prolonged exposure to large quantities of a few chemicals. The OSHA Laboratory Standard (enacted in 1991) applies to all employees engaged in the use of hazardous chemicals in laboratory workplaces where short-term exposure to varying amounts of such chemicals may be encountered. This standard emphasizes worker training and safe work practices.

Applicability

The OSHA Laboratory Standard only applies to laboratory workplaces where chemicals are used in a non-routine, non-production manner by workers with at least some education and training in science. Examples of where this standard applies at SPC are biology, chemistry, geology and human and animal science. *Not* covered by this standard include photo labs that do not change chemical processes, electronics labs, machine shops, and craft shops that are or simulate a production operation in which chemicals will not change.

Laboratory use of hazardous chemicals is defined as the handling or use of hazardous chemicals in which all of the following criteria are met:

1. Procedures using chemicals are carried out on a laboratory scale (e.g., using containers for reactions, transfers, and other handling of chemicals that are easily manipulated by one person).

2. Multiple chemical procedures or chemicals are used.

3. The operations involved are neither part of a production process nor simulate one.

4. Protective laboratory practices and equipment are available and are commonly used to minimize the potential for employee exposure to hazardous chemicals.

When the operations in a particular laboratory meet all of the above criteria, that laboratory must comply with the requirements of this Chemical Hygiene Plan. Operations in laboratories involved in the use of hazardous chemicals that do not meet the criteria previously outlined shall comply with SPC's Emergency Procedures, including all other applicable OSHA regulations.

SPC's laboratories also generate chemical wastes that may pose environmental, as well as human hazards. These wastes are considered hazardous and are regulated by Federal EPA, state, and local laws and regulations. The most important of these laws and regulations that apply to SPC's laboratories are:

- The Federal Resource Conservation and Recovery Act (RCRA - Title 40 of the Code of Federal Regulations (40CFR) Parts 260-272).

- The Texas Administrative Code, Industrial Solid Waste and Municipal Hazardous Waste (Title 30, Part I, Chapter 335).

- The City of Levelland, Texas, publically owned treatment works (POTW) Ordinance No. 704, defines what types of wastes can not be poured down sink drains and into the public sewer system.

SPC has developed a separate Waste Management Plan (WMP) to ensure compliance with these rules and regulations. The WMP is available from the Director of Physical Plant.

2.0 GENERAL PRINCIPLES

The following principles and elements have been adapted for SPC from the American Chemical Society Model Chemical Hygiene Plan.

1. The CHP provides specific laboratory practices and Standard Operating Procedures (SOP's) to minimize the exposure of faculty, students and staff to hazardous substances. Following the practices and SOP's specified in the CHP will minimize health and safety risks.

2. It is prudent to minimize all chemical exposures because most laboratory chemicals present hazards of one type or another. Control measures to be implemented include engineering controls, the use of personal protective equipment, and hygiene practices. Employees and students will follow general precautions for handling all laboratory chemicals. Specific guidelines for some chemicals that are known to be extremely hazardous, such as those found in the appropriate Material Safety Data Sheets (MSDS), will also be followed.

3. The decision to use a particular hazardous substance within a laboratory will be based on the best available knowledge of each chemical's particular hazard and the availability of proper handling facilities and equipment. The circumstances of which will require prior approval from the pertinent department chair, with consultation of administration where necessary, before it can be implemented. Substitutions, either of chemicals, demonstrations, or experiments, will be made where appropriate to reduce hazards without sacrificing instructional objectives.

4. The permissible exposure limit (PEL) and threshold limit value (TLV) of a typical chemical used in the laboratory are available on the MSDS for that chemical. Employee and student exposure to hazardous chemicals should not exceed these limits, and by following the procedures and guidelines within this CHP, exposure will be kept below these limits identified by the American Conference of Governmental Industrial Hygienists (ACGIH).

5. The best way to prevent exposure to airborne substances is to prevent their escape into the laboratory by using hoods, ventilation devices, and other protective equipment. These devices must be kept in good working order to provide employees with a safe working area with specific measures taken to ensure proper and adequate performance of such equipment. The Science Building is specifically designed with ventilation to draw out laboratory air.

6. The institution should not accept a chemical from a supplier unless it is accompanied by the corresponding MSDS. All MSDS should be accessible to employees/students at all times, and pertinent employees/students should be trained to read and use the information provided on the MSDS.

7. Departmental provisions have been established for employees/students to receive appropriate safety information and required training, as well as consultants and medical examinations, if necessary.

8. Designation of the personnel responsible for implementing the chemical hygiene plan, including assignment of a chemical safety officer. The establishment of a chemical safety committee is recommended, but not mandatory.

9. Departmental provisions have been established for additional protection for employees/students who work with "particularly hazardous substances." These include select carcinogens, reproductive toxins, and substances that have a high degree of acute toxicity.

3.0 FACULTY, STAFF AND STUDENT RESPONSIBILITIES

Everyone who teaches, studies or works in a SPC laboratory is responsible for being aware, understanding and following the CHP. The most visible person responsible for the CHP is the Chemical Safety Officer. A description of this position and others who share in conveying to the Chemical Safety Officer the authority to take the steps necessary to ensure that the CHP is protective are discussed below.

3.1 Vice President for Finance

SPC's Vice President for Finance (VPF) has the ultimate responsibility for chemical hygiene at SPC and provides, along with other officers and department chairs, support for efforts to improve chemical safety and health. The VPF supervises and authorizes the Chemical Safety Officer to take steps necessary to carry out the objectives of the CHP including the following:

1. Approving the Chemical Hygiene Plan (CHP) for laboratories at SPC.
2. Monitoring the implementation of the CHP at all applicable levels of administration within SPC.
3. Reviewing and adopting any proposed changes to the CHP.
4. Obtaining any required licensing, permits, or approval from local, state, and federal agencies to purchase, store, use, synthesize, administer, and/or dispose of any hazardous material, prescribed medication, or controlled substance.

3.2 Chemical Safety Officer

The VPF at SPC appoints a Chemical Safety Officer for the Departments of Biology and Science, as well as other pertinent departments at South Plains College. The Chemical Safety Officer coordinates all health and safety activities and monitors CHP practices. Located within Appendix A is the memorandum of designation for the Chemical Safety Officer for the institution. Duties include but are not limited to:

1. Determining which part of SPC operations is governed by the OSHA Laboratory Standard, and ensuring that such operations comply with the Chemical Hygiene Plan.
2. Working with the appropriate personnel to evaluate, implement, and update the CHP on a routine basis. Monitors the Environmental Health & Safety (EH&S) activities within each of the departments listed above.
3. Providing administrative support to the faculty and staff and direct inquiries to appropriate resources.

4. Ensuring that extremely hazardous substances (EHS) are appropriately labeled, handled, stored, and managed and that specific standard operating procedures are developed and maintained with instructions for all personnel in the safe use, cleanup and disposal of these substances.

5. Conducting, or designating the conduction of, semiannual inspections of labs and storage areas and provide a written report and recommendations for follow-up activities, as needed. (Inspection Form provided in Appendix B).

6. Coordinating the operation, acquisition, and maintenance of fume hoods, emergency safety showers, eyewashes, and fire extinguishers where chemicals are handled.

7. Monitors reports of significant lab incidents, chemical spills, and significant near- misses to prevent repeat occurrences.

8. Acting as a liaison between laboratory operations and the VPF's office. Bring unresolved and potentially serious health and safety problems to the VPF's attention.

9. Maintaining records and making them available to employees and administrative personnel.

10. Completing or designating the task of completing (upon department chair approval), an annual computerized inventory of all chemicals in storage rooms. (See Appendix C), and aiding in the identification of expired and unusable chemicals stored for disposal.

11. Maintaining a collection of references on laboratory safety and hazardous materials including current MSDS for all chemicals.

12. Monitoring the procurement, use and disposal of laboratory chemicals.

13. Developing an appropriate implementation program for chemical hygiene, including procedures for complying with each element of the CHP, such as training, information exchange, and record keeping.

14. Training of all lab employees and other personnel who may come into contact with hazardous chemicals.

15. Coordinating waste pickups with those responsible for waste disposal on campus.

16. Familiarizing oneself with the Waste Management Plan maintained under separate cover.

3.3 Faculty and Staff

Faculty and staff, who have the responsibility of Environmental Health & Safety of a laboratory during the instruction of students at SPC, participate in the implementation of this CHP and overall safe lab practice by:

1. Informing and training students and workers on chemical and operational procedure safety as it applies to activities in their areas.

2. Providing students with a copy of the SPC Laboratory Safety Rules and request completion and return of the signed Signature Page at the start of each semester. (See Appendix I)

3. Understanding planned experimental activities and the hazardous chemicals involved, including special personal protective equipment that may be required for those activities.

4. Implementing and enforcing rules and standards concerning health and safety for laboratory, classroom and support facilities.

5. Ensuring student and lab worker compliance with the CHP.

6. Being aware of hazardous properties of chemicals stored and used in the area, and if possible evaluating and limiting an experiment's potential for environmental emissions;

7. Before each lesson, teaching students about hazardous substances used in the lab experiment and ensuring that each student is aware of potential dangers (i.e. identifying safety concerns and developing safety procedures for each experiment).

8. Ensuring that proper protective equipment is available and is in working order, and that individuals in the laboratory have been trained in the proper use of such equipment.

9. Ensuring that all containers of hazardous waste are properly labeled and stored according to the Waste Management Plan.

10. Ensuring that all chemical labels are not defaced or removed.

11. Notifying the Chemical Safety Officer and making an incident report immediately if a significant spill or any injury occurs. (Incident Report available in Appendix D)

12. Providing assistance, if needed, to the Chemical Safety Officer.

3.4 Student and Lab Workers

Students and lab workers participate in the implementation of this CHP and overall safe lab practices by:

1. Indicating by signature that they have been notified of the location(s) of the CHP and understand all safety instructions and are willing to abide by them (Appendix I).

2. Following all health and safety standards, SOP's and rules established in the CHP as communicated by staff and faculty.

3. Reporting all hazardous conditions to the supervising faculty or staff.

4. Wearing and using prescribed personal protective equipment.

5. Reporting any illness or job-related injuries to the supervising faculty or staff. (See Appendix D)

6. Requesting information and training if not sure about proper operational procedures.

7. Monitoring the workplace to identify EH&S concerns.

4.0 STANDARD OPERATING PROCEDURES

Staff and students must follow the CHP to minimize their risk since most laboratory chemicals present some form of potential hazard to human health, the environment and campus safety. Generally, textbooks, laboratory manuals, and other instructional materials designate the safety precautions needed for a particular laboratory activity. However, total reliance on such publications to provide complete and accurate information is not advisable. Employees should consult additional references, including MSDS, before undertaking an unfamiliar activity.

4.1 Safety Equipment and Procedures

SPC shall provide appropriate laboratory safety equipment, such as eyewash stations, emergency showers, fire blankets, fire extinguishers, first aid kits, fume hoods, gloves, respirators, chemical resistant aprons, and face shields. SPC shall provide employees with their own eye protection (e.g., chemical splash goggles or safety glasses). SPC provides students with new safety equipment each semester. Eye protection should meet the American National Standards Institute (ANSI) Z87.1 requirements.

Safety procedures shall be developed to satisfy parts of this Chemical Hygiene Plan, and their content must be consistent with this document. In particular, the following section will be the primary documentation for how laboratories shall implement the CHP.

4.2 Laboratory

General laboratory SOP's include the following:

1. Never place food or beverage in storage areas, refrigerators, glassware, or utensils that are also used for lab operations.
2. Do not eat, drink, smoke, chew gum, manipulate contact lenses or apply cosmetics in labs where chemicals or other hazardous materials are present.
3. Minimize exposure to all chemicals regardless of their familiarity.
4. Minimize the presence of unknown materials. Treat unidentifiable materials as hazardous waste.
5. Immediately wash areas of exposed skin that has come into contact with chemicals.
6. Confine long hair and loose clothing. Wear closed-toed shoes in the lab.
7. Wear appropriate eye protection at all times.
8. When deemed pertinent by the department, wear long-sleeves. Always wear

long-legged clothing. While performing certain lab work, never wear short-sleeved T-shirts, short skirts, or shorts. Jewelry should not be worn that interferes with gloves, and other protective clothing or that could come into contact with electrical sources or react with chemicals. If short sleeves are worn, a lab coat with long sleeves can be worn to cover the exposed arms.

9. Conduct yourself in a responsible manner at all times in the laboratory. This means that horseplay, throwing items, and pranks are prohibited.

10. No one should work alone in the lab or chemical storage area unless persons in authority are in the vicinity and are aware that someone is in the laboratory. An exception may be lab coordinators who are performing routine lab preparations.

11. "Wafting" to test chemical odors should only be done with extreme caution and when only specifically directed to do so in the written experimental procedure. Also, chemicals should never be tasted.

12. Never use your mouth to draw fluid through a pipette. Always use a bulb or other device for suction.

13. Consultation of a physician is recommended if you might be pregnant, or have any medical condition that could render you particularly susceptible to chemical exposure.

14. Do not force glass tubing into rubber stoppers. Lubricate the glass and hold the tubing and stopper with cloth towels as the tubing is inserted into the stopper.

15. Proper Bunsen burner procedures shall be followed. Never leave a flame unattended.

16. Should a fire drill or any other evacuation occur during a lab activity, turn off all Bunsen burners and non-essential electrical equipment. Leave the room as directed.

17. Hot glass looks like cold glass and remains hot for a long time. Determine if an object is hot by bringing your hand close to the object but do not touch the object.

18. In the event of glassware breakage, protection for the hands should be worn when picking up the broken pieces. Small pieces should be swept up with a brush and pan.

19. Minimize the quantities of flammable liquids available in a laboratory to that needed for the experiment.

20. Ensure that sources of ignition are not close or nearby when working with flammable materials.

21. Use a tip-resistant shield for protection when working with chemicals that may explode or implode.

22. Students must read lab directions ahead of time and follow all verbal and written instructions.

23. Students shall perform only authorized experiments.

24. Students shall report all accidents, including spills, or injuries to the instructor at once, no matter how trivial it may seem. Depending of the severity of the accident, the instructor may call 911 or recommend that the student gets medical attention immediately. The first aid kit is available for minor injury.

25. Students shall work in a laboratory or chemical storage area only under the direct supervision of a science teacher or laboratory supervisor.

26. Students should dispose of hazardous waste and empty containers in accordance with the Waste Management Plan.

27. Students should ask for assistance from faculty or staff whenever one is unsure regarding the safe handling or disposal of chemicals and waste.

4.3 Housekeeping Practices

General housekeeping practices to be followed in the laboratories and stock rooms including the following:

1. Keep all work areas clean, dry and uncluttered. Students should wipe down their bench top areas at the end of each lab period. All bench top areas should be thoroughly wiped down between semesters.

2. Access to emergency equipment, utility controls, showers, eyewash stations, and lab exits should never be blocked.

3. Sinks are to be used only for disposal of water and those solutions designated by the instructor. All other wastes must be deposited in the appropriate, segregated and labeled receptacles and follow the disposal procedures outlined in the Waste Management Plan.

4. Minimize the release of toxic vapors into the lab by using fume hoods.

5. Clean up all chemical spills as soon as they occur. Chemicals and cleanup materials should be disposed of correctly.

6. Store chemicals and equipment properly. Chemicals should not be stored in aisles, on the floor, in stairwells, on desks, or laboratory tables.

7. Before leaving the laboratory for the day, ensure the student bench top services (gas, electricity, water) are completely turned off.

8. Keep all cabinets and drawers closed when not in use to avoid catching and bumping hazards.

9. Bring only your lab instructions, calculators, and writing instruments to the bench top. Leave backpacks and other belongings in the student cubby area of the laboratory.

4.4 Chemical Procurement and Purchasing

General chemical procurement and purchasing procedures consist of the following:

1. The individual department receives, inventories, and distributes bulk chemicals to individual labs. All other chemical shipments are received in the mail room and distributed to the appropriate department or directly received by the department.

2. All laboratory chemical purchases will be made through SPC purchasing after requisition by the department.

3. Donated chemicals should not be accepted unless prior permission is received from the department chair with notification to the Chemical Safety Officer.

4. When purchasing chemical supplies for labs, a copy of all chemical purchase order requests should be sent to the Chemical Safety Officer upon request.

5. Efforts must be made to purchase chemicals in small-sized containers. The lesser unit cost for bulk purchases are outweighed by the cost of additional storage and disposal of old, unused materials.

6. Check chemical purchases against inventory to reduce duplicate purchases and stock build-up.

7. Before an extremely hazardous chemical is ordered, such as carcinogens, reproductive hazards, and acutely toxic substances, consideration must be given to the adequacy of facilities and equipment to safely handle its type and quantity. Consideration must also be given to whether a less hazardous material may be substituted.

8. All purchase orders must include a request that MSDS be sent to the appropriate department. It will be up to each department to determine how best to distribute MSDS so employees have access to them during working hours.

4.5 Chemical Inventory

An inventory of hazardous and potential hazardous laboratory chemicals must be

completed for all SPC laboratories on-campus as well as off-campus sites. Its focus is on the chemical stock rooms where bulk chemicals are stored. It should also include each individual laboratory where chemicals are stored while in use during the academic year. The inventory is to be updated annually and expanded to include the following information:

- Chemical name and Chemical Abstract Service (CAS) registry number;
- Chemical supplier;
- Department, Building, and Room number (if appropriate);
- Hazardous constituents with chemical (or chemical itself);
- Is the chemical an Extremely Hazardous Substance (yes/no);
- Does the Extremely Hazardous Substance exceed its threshold planning quantity (TPQ) or 500 lbs, whichever is less;
- Date received;
- Expiration date (if applicable);
- Quantity on hand;
- Physical condition and integrity of the container when inventoried (optional); and
- An indication of whether the chemical should be disposed.

Chemicals whose storage limits have expired and are unfit for use, or containers or labels are in poor condition or missing to where the contents are compromised or unknown must be marked for disposal and placed in the inventory until their ultimate disposal. Appendix C contains a template to use for chemical inventory.

4.6 Chemical Receiving

General chemical receiving procedures include the following:

1. All incoming shipments must be inspected by the Director of Human Resources/Safety Director, Chemical Safety Officer, lab coordinator, department personnel or Post Office personnel and should be refused if proper labels are not attached, or containers are not intact and not in good condition.

2. If leaking containers are found, the containers must immediately be placed in an appropriate secondary container.

3. Chemicals should arrive with expiration dates assigned.

4. Where necessary, all areas where shipments of chemicals are received will have appropriate personal protective equipment (PPE) and spill-control materials available. Each chemical receiving area should have an appropriate fire extinguisher.

5. Labels on incoming containers shall not be removed or defaced. For secondary containers, SPC must ensure that the following information is displayed: Name of the hazardous chemical and information pertaining to the hazard (i.e. flammable, corrosive, toxic, etc.).

4.7 Chemical Storage and Distribution

The primary storage concerns with all chemical materials are to minimize the amounts stored, to avoid contact between incompatible chemicals, and to ensure that hazardous storage conditions (e.g., light and heat) are not present. Specific storage procedures, however, will depend on the type of storage equipment available and the chemicals in use. Some standard storage practices are described below.

1. All chemicals should be in tightly closed, sturdy, and appropriate containers. Periodically check the container, label integrity, and the shelf life of chemicals in storage. If deficient, these containers shall be correctly labeled before removing from storage areas.

2. If the chemical has been transferred to a secondary container, the new container should be appropriately labeled, including all of the hazard information. (See Appendix E for Secondary Labeling Template)

3. Do not store incompatible materials in the same cabinet. Corrosives, flammables, oxidizers, and poisons are mutually exclusive categories. When a substance has multiple hazards, preference shall be given to the most acute or reactive property. Chemicals should be stored based on the reactive nature and compatibility group of the chemical. (Refer to Chemical Compatibility Chart Appendix F)

4. Large containers and containers with reactive chemicals, such as acids and bases, should be on low shelves.

5. The classification system used for the storage of chemicals should be displayed in the principal storage area.

6. Do not overload storage cabinets according to the manufacturers recommended storage limits.

7. Flammable chemicals shall be stored in approved storage containers and in approved flammable chemical storage cabinets.

8. Combustible packaging material (i.e. cardboard) should not be stored inside flammable chemical storage cabinets.

9. All storage areas should be securely locked when not in use. Storage and preparation areas should be accessible only to those persons authorized to use the chemicals.

10. Unless it is a manufacturer supplied container, glass bottles containing highly flammable liquids shall not exceed 500 mL. For larger volumes, metal or approved plastic may not exceed 1 gallon, and safety cans shall not exceed 2 gallons.

11. Refrigerators used to store flammable chemicals shall be labeled and shall be of explosion proof or of lab safe design. Household refrigerators are not to be used for flammable storage.

12. Do not store food intended for human consumption with hazardous materials in the same refrigerator. Label refrigerators used for chemical storage.

13. Hand-carried hazardous chemicals should be placed in an outside container or acid-carrying bucket to protect against breakage.

14. Wheeled carts used to transport chemicals should be stable and move smoothly over uneven surfaces without tipping or stopping suddenly, and should have lipped surfaces that would restrict the containers if the containers break. If lipped surface is not provided on the cart, chemicals should be placed in an outside container or acid carrying bucket to protect against breakage.

15. Purchase and store reasonable amounts of materials needed for future experiments.

16. Ventilate storage areas and individual storage cabinets as needed to limit exposure of individuals in the building.

17. Install and maintain smoke detectors in chemical storage areas.

18. Install and maintain automatic locks and self-closures on doors leading into chemical storage rooms.

19. Consider the technical requirements and implement seismic safety for chemical storage rooms, shelves, and cabinets.

4.8 Gas Cylinders

Compressed gases present a unique danger since individuals are exposed to both mechanical and chemical hazards. Hazards can arise from reactivity and toxicity of a gas, and asphyxiation can be caused by high concentrations of even "harmless" gases such as nitrogen. The large amount of potential energy resulting from compression of the gas makes a gas cylinder a potential rocket or fragmentation bomb. Therefore, the following procedures must be followed when handling compressed gases.

1. The contents of a gas cylinder should be clearly identified with decals, stencils, or appropriate tags. A cylinder lacking proper identification should not be accepted from a vendor.

2. The hazardous properties of each gas should be determined before the gas is put to use. The flammability, toxicity, chemical activity, and corrosive effects of the gas should be considered, and the user should take adequate safety precautions at all times.

3. Gas cylinders should not be dragged, rolled, or slid. A suitable handcart should be used for transporting large gas cylinders. The handcart should be equipped with a belt or chain for securing the cylinder.

4. Under no circumstances should any individual ride in a passenger elevator with a gas cylinder. The cylinder should be secured in the elevator and sent to the desired floor without any passengers. As a precaution, a sign should accompany the gas cylinder indicating that passengers should not enter the elevator.

5. Gas cylinders should only be moved from one location to another with the protective cap securely in place.

6. Both full and empty cylinders should only be stored where they may be securely restrained by straps, chains, or a suitable stand.

7. The protective valve cap should be kept on a cylinder at all times, except when the cylinder is connected to dispensing equipment.

8. Cylinders should be protected from abuses such as exposure to damp ground, direct sunlight, extreme temperature changes, precipitation, direct flames, electrical currents, corrosives, and physical damage.

9. Gas cylinders should only be used with the appropriate dispensing equipment. Do not force connections or use homemade adapters. Standards for design, installation, and maintenance of dispensing equipment are determined by the American National Standards Institute (ANSI).

10. The size of the individual gas cylinders and the total number of cylinder present in a laboratory should be limited to the amount needed for immediate use (e.g. a semester).

11. A cylinder should be considered empty when there is still a slight positive pressure.

12. An empty cylinder should be returned to the supplier as soon as possible after having been emptied or when it is no longer needed.

13. Cylinders should not be exposed to temperatures above 50 °C (122 °F).

14. Store flammable gases separately from oxidizer gases.

15. Compressed gas cylinders will only be transported to and from the campus by the supplier.

4.9 Waste Disposal

SPC shall ensure that the disposal of laboratory chemicals is in compliance with the procedures outlined in the Waste Management Plan available from the Director of Physical Plant. To protect the environment, safety, and health of individuals at SPC and in the surrounding community, hazardous waste must be disposed of properly. Therefore, all laboratory personnel who generate or handle hazardous, radioactive, or mixed waste should be adequately trained. The following disposal requirements must be enforced.

1. Do not pour hazardous or radioactive chemicals down a sanitary sewer or sink drain. Retention system drains may be used only when specifically approved for such chemicals.

2. Place wastes in properly designated and labeled containers for disposal. All hazardous waste must be removed from the campus regularly by a licensed hazardous waste disposal service.

3. Before leaving the laboratory, ensure that chemicals and wastes generated are properly labeled, properly closed, prepared for disposal, and/or assigned to someone who understands how to manage such materials.

4.10 Chemical Spills

Call Campus Police (806) 891-8883 if the following occurs:

- An accident or spill involving hazardous materials results in a serious injury.
- Hazardous material is released into the sewer system.
- The severity of an incident is unclear.

1. Under the following situations, the spill would be judged to present an immediate hazard, evacuation is to be absolute, and the area should be isolated until a HAZMAT team arrives:

    - If hazardous vapors are present, the area should be isolated. Only persons trained in the use of respirators may enter the area. This will frequently mean waiting for the arrival of a HAZMAT team.
    - Hazardous material cannot be safely neutralized or contained by the personnel on hand.

- A fire is involved with any chemical spill or accident.
- Individuals are unfamiliar with the hazards of the spilled material.

2. If a large amount of a volatile, flammable material is spilled, immediately extinguish flames, turn off all electrical apparatus, and evacuate the area. Consult the MSDS for appropriate cleanup procedures. If the quantity exceeds the employee's ability or training to handle the spill, seal the area until appropriately trained personnel arrive.

3. If there is no immediate danger (flammability, toxicity, reactivity, corrosivity) to personnel, containment should be accomplished by use of spill pillows, towels, rolls, or other devices that will keep the spill from spreading.

4. If there is no immediate danger, cleanup procedures listed on the MSDS should be followed. Appropriate personal protective equipment shall be used and waste disposal procedures followed.

5. A spill kit must be accessible for each laboratory. The kit should include at least the following as appropriate to the hazards present:

   - Spill control pillows
   - Inert absorbents such as vermiculite, clay, sand, or kitty litter
   - Neutralizing agents for acid spills such as sodium carbonate and sodium hydrogen carbonate
   - Neutralizing agents for alkali spills such as sodium hydrogen sulfate and citric acid
   - Quantities of cleanup materials sufficient for the largest anticipated spill.
   - Large plastic scoops and other equipment such as brooms, pails, bags, and dustpans.
   - Appropriate personal protective equipment

6. If the spill material was a hazardous chemical, all of the materials involved in the cleanup will usually be considered to be hazardous waste and must be disposed of as such.

7. Individuals exposed to hazardous chemicals should respond immediately.

   - In the case of eye exposure, flush eyes promptly with water for 15 minutes and seek medical evaluation.
   - In the case of skin contact, flush the affected area promptly with water and remove any contaminated clothing. Seek medical evaluation as necessary.
   - In the case of inhalation, isolate the individual from the fumes (i.e. move him/her to fresh air) and seek medical evaluation.

- A copy of all appropriate MSDSs should accompany anyone sent for medical evaluation because of injury and potential exposure to hazardous materials. MSDSs are available from the Chemical Safety Officer or Director Physical Plant.

8. In the event of any significant spill an Incident Report (Appendix D) should be completed and returned to the Chemical Safety Officer or Director of Physical Plant.

9. For chemical spills beyond the clean up and response capabilities of SPC personnel, SPC has a relationship established with the following:

Name	Phone
Levelland Fire Department 502 Avenue F Levelland, TX 79336	(806) 894-3155 or 911
Safety-Kleen 1750 W Loop 335 South Amarillo, TX 79110	(806) 622-4070

4.11 Emissions to the Environment

Chemical users at SPC shall review all new and ongoing laboratory operations to determine if the potential exists for the emission of hazardous materials into the environment. If emissions into the environment are possible, the individual must:

1. Consult with the Chemical Safety Officer to determine the appropriate controls needed to limit the amount of environmental emission.

2. Contact the VPF to obtain any required licensing, permits, or approval from local, state, and federal agencies.

5.0 CONTROL MEASURES

5.1 Reduce Exposure to Hazardous Chemicals

The purpose of this section is to provide the framework for selecting control measures to minimize the risk of chemical hazards. Given the enormous variety of hazardous materials and potential operations, SPC has adopted the following guidelines.

Chemical hazards are reduced through various control measures that work in unison to minimize exposure. These measures include the following (in order of preference):

1. *Chemical Substitution* - Such as using a less hazardous compound.

2. *Engineering Controls* - Such as fume hoods, designated areas, security devices, and facility design.

3. *Administrative Controls* - Such as written safety procedures, training, limited access, and medical surveillance.

4. *Personal Protective Equipment* - Such as respirators, gloves, face shields, and chemical resistant clothing.

5. *Work Practices* - Such as personal hygiene and laboratory technique.

Selection of Controls

After preparing a chemical hazard analysis, a combination of controls may be used based on:

1. The inherent toxic and physical properties of the materials and their intended use.
2. The possibility of unplanned outcomes, spills and accidents.
3. Possible exposure routes (inhalation, skin contact, eye contact, or ingestion).
4. Skills, training, and prior experience of the chemical user.

Selection of the final control measures must be made by the department chair who consults with the Chemical Safety Officer. Consultation is especially needed for new operations and any operations involving particularly hazardous substances (see Section 10).

5.2 Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be considered as control measures for use within the laboratories to control safety hazards.

1. It is the responsibility of SPC to provide appropriate safety and emergency equipment for employees and students that is compatible with the required degree of protection for the substances being handled.

2. Where necessary, procedures should be prepared on the use of eye, skin, body protection, respirators, and/or other protective gear.

3. Individuals must wear eye protection when visiting or working in areas where hazardous chemicals are handled. All eye protection devices should conform to ANSI Standard Z87.1-1989. Eyeglasses, even with side shields, are not acceptable protection against chemical splashes.

4. Chemical splash safety eyewear should be used as the standard protective eyewear. Such eyewear should fit the face surrounding the eyes snugly to protect the eyes from a variety of hazards.

5. Any experiment that involves heating or the use of chemicals, or glassware shall require the use of chemical splash safety eyewear. The eyewear also serves to reduce dust and fumes from reaching the eye.

6. Contact lenses are not necessarily prohibited in the laboratory. If contact lenses are permitted, chemical splash eyewear must be worn at all times.

7. Full-face shields protect the face and throat. They must be worn for protection when there is a greater risk of injury from flying particles and harmful chemical splashes. A full-face shield should also be worn when an operation involves a pressurized system that may explode or an evacuated system that may implode as determined when needed by the responsible department. For full protection, safety goggles must be worn with the face shield.

8. Standing shields should be used when there is a potential for explosions, implosions, or splashes, or when corrosive liquids are used as determined when needed by the responsible department. Safety eyewear should be worn whenever using a standing shield.

9. A standing shield should be used for group protection from chemical splash and impact as determined when needed by the responsible department. The standing safety shield should be used with safety eyewear and, if appropriate, with a face shield.

10. Lab coats or aprons worn in the laboratory should offer protection from splashes and spills, and should be easy to remove in case of an accident, and should preferably be fire resistant.

11. When gloves are required, it should be remembered that no one kind of glove is suitable for all situations. The MSDS should be consulted for information regarding the proper type of gloves to be used.

12. Gloves must be worn during transfer of hazardous chemicals from one container to another or during the transfer of chemical waste. Gloves are available in all prep rooms and in each individual lab. Gloves should be inspected before use to ensure that there are no holes, blisters, and cracking or other ways for the chemical to pass through the glove onto the hand and should be replaced periodically or when damaged or punctured.

13. If necessary, individuals shall be trained in the proper use of respirators and shall wear them whenever exposure by inhalation is likely to exceed OSHA or ACGIH limits.

14. Carefully inspect all protective equipment before using. Do not use defective protective equipment. The choice of protective clothing depends on the degree of protection required and shall be set by the department using the equipment with consultation of the Chemical Safety Officer and Department Chair.

5.3 Hazard Identification and Labels

The following SOP's will be followed for hazard identification and labels.

1. Laboratory chemicals should be properly labeled to identify any hazards associated with them.

2. Newly purchased chemicals stored in original bottles, must have the manufacturer's original label identifying potential hazards, the date of purchase, and the date it is first opened.

3. Chemicals transferred to a secondary container, must be appropriately labeled with the chemical name, formula, concentration (if in solution), solvent (if in solution), hazard warnings. See Appendix E for a template label example.

4. Unlabeled bottles of unknown contents should not be opened, and such materials should be disposed of as discussed in the Waste Management Plan.

5.4 Signs and Posters

The following SOP's will be followed for signs and posters.

1. All lab employees must be alerted to hazards in an area they enter. The employer shall post a sign at the location where notices are normally posted to inform employees that they have the right to information regarding toxic substances found in the workplace.

2. Signs shall be used to indicate the location of exits, evacuation routes, safety showers, eyewash stations, fire extinguishers, fire blankets, first aid kits, fume hoods, and other safety equipment.

3. Telephone numbers of emergency personnel, facilities, supervisors, and the Chemical Safety Officer must be posted next to the phone in each lab, storeroom/stockroom, and storage area.

4. Flammable storage cabinets and refrigerators must be labeled according to local fire regulations. Emergency telephone numbers shall be posted in all laboratory areas.

5.5 Material Safety Data Sheets (MSDS)

The following SOP's will be followed for the use and retention of MSDS.

1. Each MSDS received should be maintained and made readily available to laboratory employees and to students.

2. The MSDS for each chemical usually gives guidelines to exposure limits. Typical limits are expressed as threshold limit values (TLVs), permissible exposure limits (PELs), or action levels. Such limits along with any other information about the hazardous characteristics of the chemical should be used to set laboratory guidelines. These laboratory guidelines may be used in determining the safety precautions, control measures, and personal protective equipment that apply when working with the toxic chemical.

3. An MSDS for each chemical must be maintained and made available by the Chemical Safety Officer. MSDS's must be retained for 30 years from the last date used.

5.6 Records Retention

The following records are to be maintained by the Chemical Safety Officer or department designee:

- An annual inventory of all chemicals and chemical usage;
- Repairs and regular inspection and maintenance of safety equipment (including fume hoods);
- Employee safety training;
- Incident reports;
- Air monitoring data, exposure assessments, medical consultations, and medical examinations;
- Waste disposal manifests and records for laboratory waste; and
- MSDS's.

5.7 Exposure Monitoring

The following SOP's will be followed for exposure monitoring:

1. If there is reason to believe that exposure levels for a regulated substance have exceeded the action level or permissible exposure limit, the Chemical Safety Officer should ensure that the employee or student exposure to that substance is measured.

2. Factors which may raise the possibility of overexposure and therefore warrant an initial measurement of employee or student exposure include:

    - The manner in which the chemical procedures or operations involving the particular substances are conducted.
    - The existence of historical monitoring data that shows elevated exposures to the particular substances for similar operations.
    - The use of a procedure that involves significant quantities or is performed over an extended period of time.
    - There is reason to believe that an exposure limit may be exceeded.
    - Judicious use of signs or symptoms of exposure (e.g., skin or eye irritation, shortness of breath, nausea, or headache), which are experienced by employees or students. (Some of these symptoms are very general and can be due to many other causes including emotional stress or hysteria.)

3. If the substance in question does not have an exposure monitoring or a medical surveillance requirement, exposure monitoring and medical surveillance shall be continued until exposure levels are determined to be below the action level or 50% of the PEL. In the absence of PELs, the American Conference of Governmental Industrial Hygienists (ACGIH) TLVs should be referenced.

4. If a substance has an exposure-monitoring requirement and if there is reason to believe that exposure levels for that substance routinely exceed the action level or in the absence of the action level, the PEL, the employer shall measure the employee or student exposure to the substance.

5. If the initial monitoring (described in above) discloses employee exposure over the action level or in the absence of an action level, the PEL, SPC shall immediately comply with the exposure monitoring provisions of the relevant standard for that substance.

6. SPC shall, within 15 working days after the receipt of any monitoring results notify the employee or student of these results in writing either individually or by posting the results in an appropriate location that is accessible to employees.

6.0 SAFETY/EMERGENCY FACILITIES AND EQUIPMENT

6.1 Reporting Lab Incidents and Unsafe Conditions

The following SOP's will be followed for reporting lab incidents and unsafe conditions:

1. Report all significant lab incidents to the instructor, department designee and to the Chemical Safety Officer. Incident report forms are available in the department office, from the Chemical Safety Officer and in Appendix D of this plan. Unusual or unexplainable chemical reactions should be discussed with others in the department, to caution others as to the risk of the procedure. **Personal reactions to chemicals that are not identified on the MSDS should be reported to the EPA, with the advice of legal counsel, under the Toxic Substance Control Act (TSCA) Section 8 regulations.**

2. Report any unsafe conditions by contacting the faculty/staff of the area who in return should notify the department chair and should file a written report with the Chemical Safety Officer so that the condition may be corrected. Unsafe conditions that must be reported include:

    - Nonfunctioning hoods in the science area;
    - Unsafe storage conditions;
    - Blocked emergency exits;
    - Improperly charged fire extinguishers;
    - Eyewash stations or safety showers that do not work or are blocked; and
    - Absence of personal protective equipment.

    A template for reporting a safety concern is available in Appendix G.

6.2 Proper Equipment Use

The following SOP's will be followed for proper safety equipment use.

1. Use equipment only for its intended purpose.

2. Inspect equipment or lab apparatus for damage before use. Never use damaged equipment such as cracked glassware or equipment with frayed electrical wiring.

3. Consult user manual prior to using equipment for the first time.

4. Airflow through fume hoods should be calibrated and documented.

6.3 Emergency Equipment

The following SOP's will be followed for the availability and use of emergency equipment:

1. Emergency equipment items that should be available include: eyewash station, fire extinguisher of the appropriate type, safety shower, telephone for emergencies, fire blanket, and identification signs;

2. Each lab prep area that connects to a laboratory within the lab building should have a standard first aid kit;

3. Safety equipment will be tagged following an inspection, showing the date, inspector, and results;

4. Laboratories in which hazardous substances are being used should have spill control kits tailored to deal with the potential risk associated with the materials being used. If there is no immediate danger to employees or students, containment should be accomplished by spill pillows, towels, rolls, inert absorbents, neutralizing agents, or other devices; and

5. The path to emergency equipment should remain clear at all times.

6.4 Fume Hoods

Specific measure shall be taken to ensure proper installation and adequate performance of fume hoods and other safety equipment, including alarm systems. SPC has adopted guidelines from:

- "Prudent Practices in the Laboratory: Handling and Disposal of Chemicals, Revised edition" published in 2011 by the National Research Council. (Available from National Academy Press, 2101 Constitution Avenue, N.W., Washington, D.C. 20418 and online at www.nap.edu)
- "CRC Handbook of Laboratory Safety, 5th Edition," published in 2000 by A. Keith Furr. (Available from CRC Press, 2000 N.W. Corporate Boulevard, Boca Raton, Florida 33431 and online at www.crcpress.com)

Consult with the Chemical Safety Officer or appropriate department personnel before making changes to existing systems and/or to obtain the criteria for unique experimental setups.

The Chemical Safety Officer shall ensure regular performance checks are conducted on all fume hoods and safety equipment used for hazardous materials. Before working with hazardous material, however, the user should always verify that the fume hood and/or equipment is operating properly. Users noting a deficiency in a fume hood or with safety equipment should immediately notify the

Chemical Safety Officer. A fume hood or piece of equipment that is not operating as intended shall not be used for hazardous procedures. To ensure safety, fume hoods used for hazardous materials (e.g., toxic, radioactive, and /or flammable substances) must have continuous monitoring devices to alert users to their less-than-adequate performance.

1. Best management practices indicate that all fume hoods be vented so that a minimum average face velocity of 80 to 100 feet per minute is achieved.

2. Hoods are to be used for the following:

   - When the chemical is a known or suspected carcinogen, reproductive hazard, sensitizer, or toxic chemical
   - When handling large quantities of chemicals (more than 500 milliliters of liquid or more than 30 grams of a solid)
   - When handling sizable amounts of flammable and reactive substances
   - When mixing sizable volumes of acid dilutions
   - When handling a substance that is fine and may create a dust

3. Check fume hoods before use to ensure adequate functioning. File a safety concern requesting hood maintenance if there is a problem and contact the Chemical Safety Officer or appropriate faculty/staff immediately. Report all improperly functioning fume hoods to the Chemical Safety Officer by way of completing a safety concern form (Appendix G).

4. According to the National Fire Protection Association (NFPA), the hood sash should be closed when not in use. If chemicals remain in the hood after use, they should be placed in the rear of the hood and the fan left on.

5. Keep equipment and bottles in use, at least 6 inches from the front of the hood.

6. Connect electrical equipment to outlets outside the hood when possible.

7. Wash the work platform often to maintain a clean, dry surface.

8. Do not use the hoods for a storage area. Once the chemicals are not in use for an experiment remove all bottles to their correct storage areas.

6.5 Ventilation

General laboratory ventilation should not be relied on for protection from exposure to hazardous chemicals. A rate of four (4) to twelve (12) room air exchanges per hour should be the accepted standard when local exhaust systems, such as hoods, are used as the primary method of control. Exhaust from the fume hoods should be vented directly to the outside.

6.6 Flammable Storage

The following SOP's will be followed for the storage of flammable materials.

1. Chemicals with a flash point below 93.3 ° C (200 ° F) or any chemical with a MSDS label indicating "Flammable" is considered a "fire hazard chemical".

2. Fire hazard chemicals in excess of 500 mL should be stored in safety cans or in storage cabinets designed for flammable materials.

3. When transferring significant quantities of flammable liquids (5 gallons or more) from one container to another, it is particularly important that they be properly grounded to prevent accidental ignition of flammable vapors and liquids from static electricity or other sources of ignition.

6.7 Electrical

The following SOP's will be followed for electrical outlets and circuits.

1. All electrical outlets should have a grounding connection accommodating a three-prong plug.

2. All laboratories should have circuit breakers readily accessible. Employees should know how to cut-off electricity to the laboratory in case of emergency.

3. Ground-fault circuit interrupters are required by code to protect users from electrical shock, particularly if an electrical device is hand held during a laboratory operation.

7.0 TRAINING

The primary goals of the environmental, safety, and health (ES&H) policies of SPC are to protect individuals from harm, prevent property damage, and limit environmental impact. The OSHA Laboratory Standard stipulates that individuals must be provided with specific information about the chemical hazards in their work area and trained on how to handle such chemicals. Thus, chemical users shall receive the required training that will enable them to take every reasonable precaution in the performance of their work. The training must be conducted and documented in accordance with this Chemical Hygiene Plan and OSHA requirements.

Training can be accomplished through formal courses, informal instruction, and/or on-the-job-training. All training, however, must be documented. All affected employees and new hires will be trained initially in the CHP and then routinely thereafter. The frequency for refresher training is not stipulated in the OSHA regulation. SPC will conduct annual CHP refresher training to ensure all affected employees are thoroughly familiar with the plan.

7.1 Required Information

Individuals working in laboratories at SPC shall be provided with the following information:

1. Employees shall be informed of the location of hazardous chemicals in the work area at the time of initial assignment, and before each new assignment, that involves chemicals to which an individual may be exposed.

2. Employees shall be informed of the content of the "Laboratory Standard," 29 CFR Part 1910. Employees shall also be informed of the location and availability of the CHP.

3. Employees shall be informed of the permissible exposure limits (PEL's) or Threshold Limit Values (TLV's) for OSHA regulated substances on site or recommended exposure limits for other hazardous chemicals on site where there is no applicable OSHA standard.

4. Employees shall be informed of the location and availability of known standard reference material on the hazards, safe handling, storage and disposal of hazardous chemicals where there is no applicable OSHA standard.

5. Employees shall be informed of the location of MSDS.

6. Employees shall be informed of the location of personal protective equipment and of emergency equipment as outlined in the CHP.

7. Employees shall be informed of the signs and symptoms associated with exposures to hazardous chemicals used in the laboratory.

7.2 Employee Training

Employees will be provided with information and training to ensure that they are apprised of the hazards of chemicals present in their work area, the proper procedures to minimize risk of exposure; and the proper response to accidents.

These orientations and training sessions will cover the following:

- Contents of the Laboratory Standard and its appendices and how SPC has responded to meet its responsibilities, location and availability of the CHP, MSDS, and resources on lab employee health and safety.
- How to read an MSDS and understand the content
- Physical and health hazards of chemical classes
- Signs and symptoms of exposure
- Use of fume hoods and PPE
- Special operating procedures to be used for extremely hazardous chemicals
- How to conduct a laboratory inspection
- Protocol for dealing with permissible exposure limits and other recommended limits
- How to file incident reports and safety concerns by using the appropriate forms.
- Methods and observations used to determine the presence or release of a hazardous chemical, such as periodic monitoring devices, continuous monitoring devices, and the visual appearance or odor of hazardous chemicals being used.
- Control measures to protect individuals from chemical hazards. These include appropriate engineering and administrative controls, personal protective equipment, work practices, and emergency procedures.
- Physical and health hazards in the work area, including flammable and reactive materials, irritants and corrosives, acute poisons, chronic organic toxins, allergens, and genetic toxins.
- Proper labeling, storage, and waste disposal practices.
- Applicable details of this Chemical Hygiene Plan.

Employees should be trained on the potential chemical hazards in the employees' work areas and on appropriate sections of the CHP. This training should be provided to all employees who actually work in the laboratory as well as to other

employees whose assignments may require that they enter a laboratory where exposure to hazardous chemicals might occur.

The training an employee receives should be determined by the nature of the work assignment in the laboratory.

7.3 Student Training

Students should receive the following training at a minimum.

1. Instruction in laboratory safety shall be provided to all students involved in laboratory activities.

2. The extent of student training should be based on the CHP, and the level of chemical handling and potential exposure to hazardous chemicals.

3. Safety training should include the importance and the content of the label and of MSDS.

4. At the beginning of the semester and prior to laboratory activities, the necessary class time shall be devoted to safe laboratory practices and to the student safety agreement available in Appendix I.

8.0 HAZARD EVALUATION

SPC prohibits employees/students from accepting used equipment, chemicals, or biological specimens donated by other universities, institutions, or private companies without prior authorization from the administration. While transfer of such items may have been a routine practice at one time, the expense, space limitations, special storage requirements, liability, and/or regulatory restrictions no longer justify this practice. Exemptions to this policy shall require the written approval of the Chemical Safety Officer, Department Chair receiving the donations, and the Vice President for Finance.

SPC prohibits the use, possession, synthesis, or administration of prescribed medications and controlled substances in the laboratory. Exemptions to this policy will be granted only if:

1. A detailed protocol is submitted to the Chemical Safety Officer setting forth the nature of the proposed experiments, the qualifications of the employees/students who will engage in the experiments, the proposed quantity of each prescribed medication and/or controlled substance involved, and the measures necessary to provide for security and proper record keeping.

2. The Chemical Safety Officer, in consultation with SPC General Counsel approves the detailed protocol.

3. Appropriate licensure, permits, and/or approval are secured under Texas Law.

4. Appropriate licensure, permits, and/or approval are secured from the Federal Food and Drug Administration (FFDA).

5. Appropriate licensure, permits, and/or approval are secured from the Drug Enforcement Administration (DEA).

Additional hazard evaluations will be made for the following.

1. The Chemical Safety Officer and/or Department Chair should be notified whenever a new laboratory experiment or test is to be carried out involving extremely hazardous materials that would present a significant increase in the presence of potential harm. This notification should also be sought for experiments that have not been performed recently or for which the potential for a high degree of harm is present. The potential for harm may be affected by a change in the amounts of materials being used, the conditions under which the experiment is to be conducted, or the substitution, deletion, or addition of a chemical.

2. Notification of procedural changes should be submitted where one or more of the following conditions exist that would present a significant increase in the presence of potential harm:

    - Potential for a rapid rise in temperature in a non-routine manner.

- Potential for a rapid increase in pressure in a non-routine manner.
- Use of a flammable solvent in a non-routine manner.
- Potential for a chemical explosion.
- Potential for spontaneous combustion.
- Potential for the emission of toxic gasses that could produce concentrations in the air that exceed toxic limits.
- Involves the use of a highly toxic substance.

3. Notification will be initiated by use of the Lab Procedure Change form, available in Appendix H.

4. Chemicals should not be distributed to other persons or to other areas of the school without the prior approval of the department chair and notification of the Chemical Safety Officer. Chemicals should not be transferred to another location without the simultaneous transfer of a copy of the appropriate MSDS, nor should they be transferred without the person receiving the chemicals having had an appropriate training in their use, storage, and disposal.

5. Students shall only work in a laboratory or chemical storage area under the direct supervision of a science teacher.

9.0 MEDICAL CONSULTATION AND EXAMINATION

Significant injuries or chemical exposures in the laboratory should be reported immediately to the department chair, Campus Security if needed and the Chemical Safety Officer. Medical attention following a significant injury or exposure to chemicals in the laboratory should be sought. Consultation, examination, and treatment by licensed physicians and nurse practitioners are available to all employees/students of SPC. In the event of a known acute exposure, referral should be prompt to ensure that appropriate decontamination and medical care are provided in a timely manner.

1. SPC staff working with hazardous chemicals shall receive medical care consistent with established worker's compensation procedures whenever:

   - An employee develops signs and symptoms of exposure associated with chemicals he/she is using, or may be in contact with OSHA regulated substances measured above "actual" permissible exposure limits.
   - An employee is present at a chemical spill, leak, explosion, or other situation that exposes him/her to a hazardous chemical.
   - An event such as a cut, puncture, spill, leak, or explosion results in exposure to a hazardous material.

2. The college will provide the examining physician with:

   - The generic and trade names of all hazardous chemicals and chemical compounds to which the employee may have been exposed.
   - MSDS and any other relevant data.
   - Conditions under which the exposure occurred.
   - Signs or symptoms of exposure experienced by the employee during, soon after, and within 72 hours after the incident.
   - The results of the investigation of the incident, including witness interviews.
   - Any monitoring or test results.

3. The College and employee shall obtain a written opinion from the examining physician. The written opinion should include:

   - Recommendation for medical follow-up.
   - The results of all medical examinations.
   - Any medical condition the employee has that places him/her at risk as a result of future exposure to hazardous chemicals.
   - A statement confirming the employee was advised of the risks.
   - The opinion must not reveal specific findings of diagnoses unrelated to occupational exposure if such limitation is within the control of SPC.

4. Medical attention includes:

- Medical history and examination.
- Specific treatment as necessary.
- Laboratory tests if required.
- Follow-up examinations, treatments, and laboratory tests as needed.

10.0 PARTICULARLY HAZARDOUS SUBSTANCES

Special consideration shall be given to protecting employees/students from particularly hazardous chemicals. For the purposes of this Chemical Hygiene Plan, these include designated carcinogens, reproductive hazards, allergens, extremely flammable substances, highly reactive, and acutely toxic materials.

When particularly hazardous substances are used in laboratories at SPC, the specific control measures below shall be implemented for additional protection. The department designee shall be NOTIFIED, and the Chemical Safety Officer informed, for identification of particularly hazardous substances and for guidance on selecting controls.

1. Establish "designated areas" (see definitions). The chemical user and/or Chemical Safety Officer shall ensure that the appropriate warning signs are posted in these areas.

2. Use containment devices (e.g., fume hoods or glove boxes) when:

   a. Volatilizing substances.

   b. Manipulating substances that may generate aerosols.

   c. Using laboratory procedures that may result in an uncontrolled release of the substance.

3. Use high-efficiency particulate air (HEPA) filters, carbon beds, or scrubber systems with containment devices to protect effluent and vacuum lines, pumps, and the environment whenever feasible.

4. Establish procedures for the safe removal of contaminated waste. Disposal of any particularly hazardous substance is controlled by government regulations.

5. Ensure that chemical residues do not remain on the body, clothing, or equipment. Employees/students shall follow Standard Operating Procedures upon completing work with particularly hazardous substances or in the event of accidental contact with such chemicals.

6. Inform employees/students of the hazards in designated areas. Be sure that those individuals who work in designated areas are authorized to do so, and that they are trained on how to handle the hazards in such areas. All training provided shall be documented.

10.1 General

General procedures for particularly hazardous substances include:

1. Employees should read and understand these practices before commencing a procedure using particularly hazardous substances (PHS).

2. PHS includes highly toxic chemicals, reproductive toxins, and select carcinogens. In addition, SPC includes highly flammable chemicals, highly reactive chemicals, and highly corrosive chemicals as PHS.

3. The use of these substances requires prior approval of the department designee and notification of the Chemical Safety Officer (Appendix H).

4. PHS shall be used in designated areas and in fume hoods.

5. The use of PHS shall require removal of contaminated waste and the decontamination of contaminated areas.

10.2 Highly Toxic Chemicals

The precautions below shall be taken when working with chemicals of high-chronic toxicity. Examples of these types of substances include dimethylmercury and nickel carbonyl, benzo[a]pyrene, N-nitrosodiethylamine, and other human carcinogens or substances with high carcinogenic potency in animals. Other examples of highly toxic chemicals (acute or chronic) that were commonly used are benzene, chloroform, formaldehyde, bromine, carbon disulfide, carbon tetrachloride, cyanide salts, and hydrofluoric acid.

1. When a PEL or TLV value is less than 50 ppm or 100 mg/m^3 conduct all transfers and work with these substances in a "controlled area" (e.g., a restricted access hood, glove box, or part of a laboratory designated for working with such substances). Ensure that all persons with access to controlled areas are aware of the substances being used and the precautions required. If none are available, no work should be performed using the chemical.

2. Protect vacuum pumps from being contaminated by scrubbers or HEPA filters; vent them into the hood.

3. Decontaminate the controlled area before normal work is resumed.

4. Remove any contaminated protective apparel and thoroughly wash hands, and other exposed areas of skin after use of these chemicals. Place the apparel in an appropriately labeled container.

5. Use a wet mop or a vacuum cleaner with a HEPA filter if the toxic substance is a dry powder; do not dry sweep.

6. Initiate a regular medical surveillance program if large quantities of toxic substances are used.

7. Ensure that the controlled area is conspicuously marked with warning and restricted access signs, and that all containers with these substances are appropriately identified and have warning labels.

8. Ensure that contingency plans, equipment, and materials are available to minimize exposures to people and property if an accident occurs.

9. Store chemicals in unbreakable, chemically resistant, secondary containers. Label the containers appropriately and store them in a ventilated, limited-access area.

10. If a PEL, TLV, or comparable value is not available, the animal or human median inhalation lethal concentration information, LC 50, should be used as a guideline. If that value is less than 200 ppm or 2000 mg/m^3 when administered continuously for one hour or less, then the chemical should be used in an operating fume hood, glove box, vacuum line, or other device equipped with appropriate traps. If none are available, no work should be performed using that chemical.

10.3 Highly Flammable Chemicals

General procedures for highly flammable chemicals include:

1. NFPA defines Class 1A liquids as highly flammable chemicals. Class 1A liquids have a flashpoint of less than 73°C (163.4°F) and a boiling point of less than 100°C (212°F).

2. Examples of highly flammable chemicals are diethyl ether, acetone, pentane, petroleum ether, and acetaldehyde.

10.4 Highly Reactive Chemicals

General procedures for highly reactive chemicals include:

1. Reactivity information may be given in a manufacturers MSDS and on labels. The most complete and reliable reference on chemical reactivity is the current edition of *Bretherick's Handbook of Reactive Chemical Hazards.* A Chemical Compatibility Chart has been provided as Appendix F.

2. A reactive chemical is one that:

   - Is described as such on the label, in the MSDS, or by Bretherick.
   - Is ranked by the NFPA as 3 or 4 for reactivity (the yellow portion of the NFPA diamond).
   - Is identified by the Department of Transportation (DOT) as an oxidizer, an organic peroxide, or an explosive (Class A, B, or C).
   - Fits the Environmental Protection Agency definition of reactive in 40 CFR 261.23, or is known or found to be reactive with water.

3. Reactive chemicals should be handled with all proper safety precautions, including segregation in storage (refer to Chemical Compatibility Chart, Appendix F), and prohibition of mixing even small quantities with other chemicals without prior approval and appropriate personal protection and precautions.

4. Examples of commonly encountered highly reactive chemicals are ammonium dichromate, nitric acid, perchloric acid, hydrogen peroxide, ($\geq$30%) and potassium chlorate, azides, organic nitrates, and acetylides.

10.5 Highly Corrosive Chemicals and Contact Hazard Chemicals

General procedures for highly corrosive chemicals and contact hazards include:

1. Corrosivity, allergen, and sensitizer information is provided in manufacturers' MSDS and on labels.

2. A corrosive chemical is one that:

   - Fits the OSHA definition of corrosive in 29 CFR 1910. 1200.
   - Fits the EPA definition of corrosive in 40 CFR 261.22 (has a pH greater than 12.5 or a pH less than 2).
   - Is known to be reactive to living tissue, causing visible destruction, or irreversible alterations of the tissue at the site of contact.

3. A contact - hazard chemical is an allergen or sensitizer that:

   - Is so identified or described in the MSDS or on the label.
   - Is so identified or described in medical or industrial hygiene literature.
   - Is known to be an allergen or sensitizer.

4. Corrosive and contact hazard chemicals will be handled with all proper safety precautions, including wearing safety goggles, using gloves tested for the absence of pinholes and known to be resistant to permeation or penetration by the chemical, and wearing a laboratory apron or laboratory coat.

5. Examples of highly corrosive chemicals are hydrochloric, sulfuric, nitric, phosphoric, and perchloric acids (all acids in greater than 1 Molar concentration), and potassium hydroxide (either solid or in aqueous solution greater than 1 Molar concentration).

10.6 Reproductive Toxins

General procedures for reproductive toxins include:

1. A reproductive toxin refers to chemicals which affect reproductive capabilities including chromosomal damage (mutations) and which effect fetuses (teratogenesis).

2. A reproductive toxin is a compound that is described as such in the applicable MSDS or label.

3. No reproductive toxins should be allowed in the school's laboratories without written authorization from the Chemical Safety Officer.

4. If such chemicals are used:

   - They should be handled only in a hood and when satisfactory performance of the hood has been confirmed.
   - Skin contact should be avoided by using gloves and wearing protective apparel.
   - Persons using such substances should always wash hands and arms immediately after working with these materials.
   - Unbreakable containers of these substances should be stored in a well ventilated area and will be labeled properly.

5. Examples of reproductive toxins are organomercurial compounds, ethidium bromide, carbon disulfide, xylene, toluene, benzene, mercury, lead compounds, ethyl ethers, and vinyl chloride.

10.7 Allergens and Embryotoxins

The precautions below shall be taken when working with allergens and embryotoxins.

1. Review each use of these materials with the research supervisor; review continuing uses annually or whenever a procedural change is made.

2. Properly label these substances; store them in an unbreakable secondary container in an adequately ventilated area.

3. Notify supervisors of all incidents of exposure or spills; consult a qualified physician when appropriate.

4. Examples of and the requirements for these substances area as follows:

   a. *Allergens* – Wear suitable gloves to prevent hand contact with allergens or substances of unknown allergenic activity (e.g., diazomethane, isocyanates, and bichromates).

   b. *Embryotoxins* – If you are a woman of childbearing age, only handle these substances (e.g., organomercurials, lead

compounds, and fomamide) in a hood that functions properly. Use appropriate protective apparel (especially gloves) to prevent skin contact.

10.8 Animal Work with Chemicals of High-Chronic Toxicity

The following precautions shall be taken when animal work involves chemicals of high-chronic toxicity.

1. Administer the substance by injection or gavage instead of in the diet, when possible. If the substance is administered by diet, use a caging system under negative pressure or under laminar airflow directed toward HEPA filters.

2. Develop procedures that minimize the formation and dispersal of contaminated aerosols, including those from food, urine, and feces. Use HEPA filtered vacuum equipment for cleaning; moisten contaminated bedding before removal from the cage; mix diets in closed containers in a hood.

3. Wear plastic or rubber gloves and fully buttoned laboratory coats or jumpsuits when working in the animal room. Other apparel and equipment (e.g., shoe and head coverings or respirators) may be used because of incomplete suppression of aerosols.

4. Special facilities with restricted access are preferred for large-scale studies.

11.0 MAINTENANCE AND INSPECTION PROGRAM

SPC should implement a maintenance and inspection program to ensure that ventilation systems and emergency safety equipment are functioning properly and that lab working conditions meet legal and acceptable standards. The maintenance and inspection program should target facilities known to be using extremely hazardous chemicals including known potential carcinogens, highly acutely toxic, reproductive toxins, allergens, and others.

11.1 Maintenance Program

The general ventilation system in labs must be well maintained and the quantity and quality of airflow monitored annually by Physical Plant to ensure that:

1. General ventilation provides fresh air four (4) to twelve (12) air changes per hour to all labs. All exhaust air from labs is vented to the outside and not circulated throughout the building. Special attention will be paid to labs in which fume hoods are routinely operating to ensure a proper balance of airflow.
2. All chemical storage areas receive six air changes an hour, and exhausted air is not re-circulated through the facility. Centralized heating, ventilation, and cooling systems that impact labs will be maintained by:
    - Filters changed or cleaned;
    - Water frequently checked for proper flow and biological growth; and
    - Drip pans cleaned regularly.
3. The fume hood maintenance program comprises:
    - Fans checked for bearing over heating, belt drives for proper tension, fan wheels for proper freedom from accumulations and rotation;
    - Ductwork check for intact joints and no dents or holes in the system;
    - Visual inspection of the hood will be done to check for signs of corrosion or other indications of needed repairs; and
    - Cleaning the surface of the hood, the sash glass, and the light unit will be cleaned.
4. Emergency eyewash and deluge showers:
    - Any needed maintenance and repair will be determined during weekly inspections/tests.
5. Fire extinguishers:
    - All fire extinguishers will be inspected on a monthly basis and maintained by maintenance personnel to ensure proper charging in case of fire. Problems should be reported to the Chemical Safety Officer immediately.

11.2 Inspections

The inspection protocols will consist of the following:

1. The Chemical Safety Officer will conduct semiannual inspections of all labs for unsafe conditions and practices, and test key safety equipment to ensure proper functioning (Appendix B). Before the inspections, the Chemical Safety Officer will have completed and updated the chemical inventory.

2. The Chemical Safety Officer will write inspection reports identifying problems needing immediate attention and those of a lesser priority. Inspection results will be discussed with the department chair and lab workers, indicating the follow-up needed to correct any problems.

3. The Chemical Safety Officer will ensure fume hood performance is evaluated using smoke tubes to determine if the hood is exhausting and will monitor the rate of flow at the face as well as the uniformity of air delivered to the hood by making a series of face velocity measurements at various points. Each measurement should not vary more than 25%.

4. Physical Plant should be notified of any problem with emergency equipment. The following should be checked:

    - Emergency exits;
    - Fire extinguishers;
    - Availability of spill-control emergency equipment;
    - Availability of MSDS;
    - Proper and working protective equipment is in the facility;
    - General housekeeping conditions and systems used to communicate hazards;
    - Storage areas for proper segregation of chemical classes, storage facilities, and container integrity; and
    - Waste disposal practices.

As routine policy, the second inspection of the year will focus on labs in which improvements should have been made, either by lab employees or by management. Any serious or potentially serious lab safety and/or health problems will be identified and a schedule of steps and a time frame for completing them will be prepared by the Chemical Safety Officer.

12.0 EMERGENCY SERVICES CONTACT INFORMATION

Emergency Services	
Name	**Phone Number**
Levelland Fire Department Non-Emergency Emergency	 (806) 894-3155 911
Levelland Police Department Non-Emergency Emergency	 (806) 894-6164 911
National Weather Service	(817) 429-2631
Poison Control Center	(806) 354-1633 (800) 222-1222
Covenant Hospital – Levelland	(806) 894-4963

South Plains College Employees	
Name	**Phone Number**
Levelland Campus Police	(806) 716-2396
Chemical Safety Officer Professor Mitch Cottenoir	(806) 894-9611 Ext. 2326
Director Physical Plant Carry Morrow	(806) 894-9611 Ext. 2420 (806) 893-2922
Maintenance Supervisor Todd Gregg	(806) 894-9611 Ext. 2421 (806) 891-2363

APPENDIX A

DESIGNATION OF CHEMICAL SAFETY OFFICER

South Plains College

1401 South College Avenue
Levelland, Texas 79336

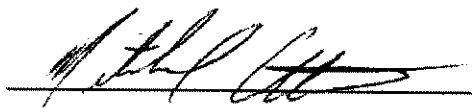
Memorandum

To: Mr. Mitch Cottenoir, Professor of Chemistry

From: Mr. Anthony Riley, Vice President for Finance

Subject: Designation of Chemical Safety Officer

In accordance with the requirements set forth in 29 CFR 910.1450, you are hereby designated as the Chemical Safety Officer for South Plains College. As such you are responsible for the implementation of the Chemical Hygiene Plan and its annual review.

Signature: 

Date: 12/12/11

APPENDIX B

SEMI-ANNUAL INSPECTION OF LABORATORIES AND CHEMICAL STORAGE AREAS

South Plains College
Chemical Hygiene Inspection Checklist

Date of Inspection: _____ Conducted by: _____

Location (room number & building): _____

Laboratory Supervisor: _____

Phone Number: _____

1.0 GENERAL WORK PRACTICES

☐ Yes ☐ No ☐ NA 1.1 Eating, drinking, smoking, etc. prohibited in the lab or designated lab areas.

☐ Yes ☐ No ☐ NA 1.2 Mouth pipetting prohibited

☐ Yes ☐ No ☐ NA 1.3 Food, drink not stored in lab, refrigerators, freezers, etc. except for those items required for experimental use, but not consumption.

☐ Yes ☐ No ☐ NA 1.4 Hands washed when work completed

☐ Yes ☐ No ☐ NA 1.5 All particularly hazardous substances are handled in laboratory hoods, as appropriate.

☐ Yes ☐ No ☐ NA 1.6 Open flames, sparks kept away from flammables

☐ Yes ☐ No ☐ NA 1.7 Contact phone nos. for lab supervisor and safety officer current

☐ Yes ☐ No ☐ NA 1.8 Dress code prohibits bare toes, bare arms and bare legs while working with chemicals as determined by the department.

2.0 HOUSEKEEPING

☐ Yes ☐ No ☐ NA 2.1 General appearance of lab is neat and orderly

☐ Yes ☐ No ☐ NA 2.2 Aisles and exits free from obstruction

☐ Yes ☐ No ☐ NA 2.3 Work surfaces protected from obstruction

☐ Yes ☐ No ☐ NA 2.4 Spills absent

☐ Yes ☐ No ☐ NA 2.5 Electrical cords and wires in good condition

☐ Yes ☐ No ☐ NA 2.6 Tools and equipment in good repair

☐ Yes ☐ No ☐ NA 2.7 Defective glassware absent

☐ Yes ☐ No ☐ NA 2.8 Combustible materials not stored near flammables

3.0 HAZARD COMMUNICATION

☐ Yes ☐ No ☐ NA 3.1 Primary and secondary chemical containers labeled appropriately

☐ Yes ☐ No ☐ NA 3.2 Signs on storage areas (e.g., refrigerators) and lab room doors

☐ Yes ☐ No ☐ NA 3.3 MSDS complete and available

☐ Yes ☐ No ☐ NA 3.4 Chemical Hygiene Plan available

☐ Yes ☐ No ☐ NA 3.5 The front door to all labs should have signs indicating the type of hazards present in the lab. Write down all information.

4.0 PERSONAL PROTECTIVE EQUIPMENT

☐ Yes ☐ No ☐ NA 4.1 Eye protection available and used

☐ Yes ☐ No ☐ NA 4.2 Lab coats and/or lab aprons available and used appropriately

☐ Yes ☐ No ☐ NA 4.3 Gloves available, used, and matched to hazards

☐ Yes ☐ No ☐ NA 4.4 Respirators absent (unless by permission of the EH&S Office)

☐ Yes ☐ No ☐ NA 4.5 Laboratory attire is appropriate for the work being performed.

5.0 CHEMICAL STORAGE

☐ Yes ☐ No ☐ NA 5.1 Incompatible chemicals segregated

☐ Yes ☐ No ☐ NA 5.2 Current inventory of chemicals available and recent (within 1 year)

☐ Yes ☐ No ☐ NA 5.3 Hazardous chemicals not stored above 6' on open shelves

☐ Yes ☐ No ☐ NA 5.4 Bulk quantities of flammable liquids stored in approved safety cans, cabinets

☐ Yes ☐ No ☐ NA 5.5 Safety carriers available for bottles

☐ Yes ☐ No ☐ NA 5.6 Out-of-use chemicals absent (i.e. no legacy or obsolete chemicals)

☐ Yes ☐ No ☐ NA 5.7 Excessive quantities of chemicals not stored on benches

☐ Yes ☐ No ☐ NA 5.8 Lab limits for flammables not exceeded (Limit=____)

6.0 COMPRESSED GAS CYLINDERS AND VACUUM PUMPS

☐ Yes ☐ No ☐ NA 6.1 Chained, secured

☐ Yes ☐ No ☐ NA 6.2 Inspected for condition, pressure retention

☐ Yes ☐ No ☐ NA 6.3 Gas lines, piping, manifolds, etc. labeled with identity of contents. Gas ports labeled.

☐ Yes ☐ No ☐ NA 6.4 Protective caps in place except when cylinders are in use

☐ Yes ☐ No ☐ NA 6.5 Vacuum pumps appropriately ventilated. Rotovaporators wrapped in electrical tape when possible

☐ Yes ☐ No ☐ NA 6.6 Vacuum pumps enclosed with fan belt guard

☐ Yes ☐ No ☐ NA 6.7 Flammable gas lines equipped with flashback arrestors

7.0 WASTE DISPOSAL

☐ Yes ☐ No ☐ NA 7.1 Hazardous wastes not disposed in general sewer system (sink) or in general trash

☐ Yes ☐ No ☐ NA 7.2 Waste containers closed except when adding or removing waste

☐ Yes ☐ No ☐ NA 7.3 Containers for hazardous wastes in good condition

☐ Yes ☐ No ☐ NA 7.4 Containers of hazardous waste labeled with the words hazardous waste and other descriptive words

☐ Yes ☐ No ☐ NA 7.5 Is there spill containment available?

☐ Yes ☐ No ☐ NA 7.6 Satellite accumulation areas posted and orderly? Waste moved to central storage area when container is full?

☐ Yes ☐ No ☐ NA 7.7 Broken glassware in designated containers and not in general trash

☐ Yes ☐ No ☐ NA 7.8 Discarded sharps in designated containers and containers closed

☐ Yes ☐ No ☐ NA 7.9 Empty containers labeled and/or triple rinsed

8.0 LABORATORY HOODS AND VENTILATION

☐ Yes ☐ No ☐ NA 8.1 Hoods in sound working condition

☐ Yes ☐ No ☐ NA 8.2 Hoods marked with operating heights, average face velocity. Date of last check: _____

☐ Yes ☐ No ☐ NA 8.3 Gauges, monitors and alarms operating properly

☐ Yes ☐ No ☐ NA 8.4 Hoods not cluttered with chemicals, equipment

☐ Yes ☐ No ☐ NA 8.5 General ventilation adequate

9.0 SAFETY EQUIPMENT/EMERGENCY RESPONSE

☐ Yes ☐ No ☐ NA 9.1 Spill containment clean-up material available?

☐ Yes ☐ No ☐ NA 9.1.a Are kits stocked with required supplies

☐ Yes ☐ No ☐ NA 9.2 Eye wash/safety showers in sound working condition, not blocked

9.3 Fire extinguishers:

☐ Yes ☐ No ☐ NA 9.3.a Type and appropriate location, not blocked, good working order.
☐ Yes ☐ No ☐ NA 9.3.b Date of last inspection: _____
☐ Yes ☐ No ☐ NA 9.3.c All laboratories have at least one extinguisher.
☐ Yes ☐ No ☐ NA 9.3.d Locate all extinguishers in the lab, answer the following, then date and initial the back of the tag.
9.3.e Number of extinguishers in lab: _____
9.3.f Most recent inspection: _____
☐ Yes ☐ No ☐ NA 9.3.g All extinguishers labeled?
☐ Yes ☐ No ☐ NA 9.3.h All extinguishers have tags?
☐ Yes ☐ No ☐ NA 9.3.i Are any tags broken?
☐ Yes ☐ No ☐ NA 9.3.j Are all pins in place?
☐ Yes ☐ No ☐ NA 9.3.k All residue removed from nozzles?
☐ Yes ☐ No ☐ NA 9.3.l Are the extinguishers mounted on the wall?

☐ Yes ☐ No ☐ NA 9.4 First aid kit available?

☐ Yes ☐ No ☐ NA 9.4.a Are kits fully stocked with required supplies?

☐ Yes ☐ No ☐ NA 9.5 Fire blanket available as appropriate

☐ Yes ☐ No ☐ NA 9.6 Locations marked for all above items

☐ Yes ☐ No ☐ NA 9.7 All exits free and unobstructed

☐ Yes ☐ No ☐ NA 9.8 Emergency numbers posted

10.0 SINKS

☐ Yes ☐ No ☐ NA 10.1 Are the sinks free of chemical bottles?

☐ Yes ☐ No ☐ NA 10.2 Are the sinks free of debris?

11.0 TRAINING

11.1 List names of all students, lab coordinators, lab staff and faculty working in lab and ensure they have been trained according to the CHP and documentation of training is available.

☐ Yes ☐ No ☐ NA _____

☐ Yes ☐ No ☐ NA _____

☐ Yes ☐ No ☐ NA _____

☐ Yes ☐ No ☐ NA _____

☐ Yes ☐ No ☐ NA _____

☐ Yes ☐ No ☐ NA _____

APPENDIX C

CHEMICAL INVENTORY TEMPLATE

CHEMICAL INVENTORY
REVISED: _________

Chemical Name	CAS #	Supplier	Department	Building/ Room #	Hazardous Constituents	EHS (yes/no)	EHS TPQ Exceeded (yes/no)	Date Received	Quantity on Hand	Expiration Date (if applicable)	Disposal Necessary (yes/no)

APPENDIX D

INCIDENT REPORT

SOUTH PLAINS
INCIDENT REPORT

Date: _____ **Time:** _____

Name of Person Involved _____ **Telephone:** _____

Form Completed By: _____ **Telephone:** _____

Building: _____ **Department:** _____

ACCIDENT

- ☐ **Sickness**
- ☐ **Accident**
- ☐ **Injury**
- ☐ **Medical Attention**
- ☐ **Other** _____

ASSISTANCE REQUIRED
(*check all that apply)*

- ☐ **Police**
- ☐ **Security**
- ☐ **Ambulance**
- ☐ **Nurse**
- ☐ **Other** _____

TAKEN TO HOSPITAL

(*circle one): YES NO*

Transported by: _____

Hospital: _____

Other: _____

Faculty/Staff/Students Involved

_____

_____

Witnesses:

_____

_____

Description of Incident (attach additional pages as necessary)

_____

_____

_____

Root Cause (attach additional pages as necessary)

_____

_____

_____

Corrective Actions	**Owner**	**Completion Date**
1.		
2.		
3.		
4.		

Routing / Distribution

Copies of this Incident Report must be sent immediately to the following:

Vice President for Finance
Chemical Safety Officer
Appropriate Supervisor (if incident involves staff employee)
Vice President for Student Affairs (if incident involves student(s))
Director of Human Resources (if incident is Worker's Compensation claim)

APPENDIX E

SECONDARY CONTAINER LABEL TEMPLATE

(to be used with Universal Laser Printer Labels, 80108)

Secondary Container Labels

Chemical Name: ______________________________

Chemical Manufacture: ________________________

☐	**Heath**
☐	**Flammability**
☐	**Reactivity**
Personal Protection:	

Chemical Name: ______________________________

Chemical Manufacture: ________________________

☐	**Heath**
☐	**Flammability**
☐	**Reactivity**
Personal Protection:	

Chemical Name: ______________________________

Chemical Manufacture: ________________________

☐	**Heath**
☐	**Flammability**
☐	**Reactivity**
Personal Protection:	

Chemical Name: ______________________________

Chemical Manufacture: ________________________

☐	**Heath**
☐	**Flammability**
☐	**Reactivity**
Personal Protection:	

Chemical Name: ______________________________

Chemical Manufacture: ________________________

☐	**Heath**
☐	**Flammability**
☐	**Reactivity**
Personal Protection:	

Chemical Name: ______________________________

Chemical Manufacture: ________________________

☐	**Heath**
☐	**Flammability**
☐	**Reactivity**
Personal Protection:	

APPENDIX F

CHEMICAL COMPATIBILITY CHART

EPA's Chemical Compatibility Chart

EPA-600/2-80-076 April 1980

A METHOD FOR DETERMINING THE COMPATIBILITY OF CHEMICAL MIXTURES

Please Note: This chart is intended as an indication of some of the hazards that can be expected on mixing chemical wastes. Because of the differing activities of the thousands of compounds that may be encountered, it is not possible to make any chart definitive and all inclusive. It cannot be assumed to ensure compatibility of wastes because wastes are not classified as hazardous on the chart, nor do any blanks necessarily mean that the mixture cannot result in a hazard occurring. Detailed instructions as to hazards involved in handling and disposing of any given waste should be obtained from the originator of the waste.

CODE	CONSEQUENCE
H	Heat Generation
F	Fire
G	Innocuous and non-flammable gas generation
GT	Toxic Gas formation
GF	Flammable Gas formation
E	Explosion
P	Violent Polymerization
S	Solubilization of toxic substance
U	May be hazardous, but Unknown

#	REACTIVITY GROUP NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	101	102	103	104	105	106	107
1	Acids, Mineral, Non-oxidizing																																									
2	Acids, Mineral, Oxidizing																																									
3	Acids, Organic		G H																																							
4	Alcohols and Glycols	H	H F	H P																																						
5	Aldehydes	H P	H F	H P																																						
6	Amides	H	H GT																																							
7	Amines, Aliphatic and Aromatic	H	H GT	H		H																																			
8	Azo Compounds, Diazo Compounds and Hydrazines	H G	H GT	H G	H G	H																																			
9	Carbamates	H G	H GT						G H																																
10	Caustics	H	H	H		H				H G																															
11	Cyanides	GT GF	GT GF	GT GF					G																																
12	Dithiocarbamates	H,F GF	H,F GF	H,GT GF		GF GT		U	H G																																
13	Esters	H	H F						H G		H																														
14	Ethers	H	H F																																						
15	Fluorides, Inorganic	GT	GT	GT																																					
16	Hydrocarbons, Aromatic		H F																																						
17	Halogenated Organics	H GT	H,F GT					H GT	H G		H GF	H																														
18	Isocyanates	H G	H,F GT	H G	H P			H P	H G		H,P G	H G	U																													
19	Ketones	H	H F						H G		H	H																														
20	Mercaptans and Other Organic Sulfides	GT GF	H,F GT						H G									H	H	H	20																				
21	Metals, Alkali and Alkaline Earth, Elemental	H,F GF	H,F GF	H,F GF	H,F GF	H,F GF	GF H	GF H	GF H	GF H	GF H	GF H	GF,H GT	GF H				H E	GF H	GF H	GF H	21																			
22	Metals, Other Elemental & Alloys as Powders, Vapors, or Sponges	H,F GF	H,F GF	G F					H,F GT	U	GF H							H E	GF H		H,F GF		22																		
23	Metals, Other Elemental & Alloys as Sheets, Rods, Drops, etc.	H,F GF	H,F GF						H,F G									H F						23																
24	Metals and Metal Compounds, Toxic	S	S	S			S	S			S														24															
25	Nitrides	GF HF	H,F E	H GF	H,E GF	GF H			U	H G	U	GF H	GF H	GF H				GF H	U	GF H	GF H	E				25														
26	Nitriles	H,GT GF	H,F GT	H							U											H P			S	GF H	26													
27	Nitro Compounds, Organic		H,F GT			H					H E											H,E GF				H,E GF		27												
28	Hydrocarbons, Aliphatic, Unsaturated	H	H F			H																	H E					28											
29	Hydrocarbons, Aliphatic, Saturated		H F																										29										
30	Peroxides and Hydroperoxides, Organic	H G	H E		H F	H G		H GT	H,F E	H,F GT		H,E GT	H,F GT					H E	H	E	H,F GT	H E	H G		H G	H,E GF	H,P GT		H P		30									
31	Phenols and Cresols	H	H F						H G										H P			GF H				GF H					H	31								
32	Organophosphates, Phosphothioates, Phosphodithioates	H GT	H GT						U		H E											H									U		32							
33	Sulfides, Inorganic	GT GF	HF GF	GT		H			E										H												H GT			33						
34	Epoxides	H P	H P	H P	H P	U		H P	H P		H P	H P	U								H P	H P	H P		H P	H P					H P	H P	U	H P	34					
101	Combustible and Flammable Materials, Miscellaneous	H G	H,F GT																			H,F G				H,F GF					H,F GT				101					
102	Explosives	H E	H E	H E					H E		H E			H E								H E	H E	H E	E	E					H E	H E		H E	H E	H E	102			
103	Polymerizable Compounds	P H	P H	P H					P H		P H	P H	U									P H	P H	P H	P H	P H					P H	P H		P H			H E	103		
104	Oxidizing Agents, Strong	H GT		H GT	H F	H F	H,F GT	H,F GT	H E	H,F GT		H,E GT	H,F GT	H F	H F		H F	H GT	H,F GT	H F	H,F GT	H,F E	H,F E	H F		H,F E	H,F GT	H E	H F	H F	H G	H F	H,F GT	H,F GT	H,F G	H,F G	H E	H,F GT	104	
105	Reducing Agents, Strong	H GF	H,F GT	H GF	H,F GF	H,F GF	H GF	H G			H	H GT	H F				H,F E	H E	H GF	H GF	H GF						H GF	H E				H E	H GF	H,GT GF		H	H GF	H E	H,P GF	H,F E	105	
106	Water and Mixtures Containing Water	H	H						G										H G			H GF	H GF		S	H GF								GT GF					GF GT	106	
107	Water Reactive Substances	<---EXTREMELY REACTIVE! DO NOT MIX WITH ANY CHEMICAL OR WASTE MATERIAL! EXTREMELY REACTIVE!--->																																						107
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	101	102	103	104	105	106	107

APPENDIX G

SAFETY CONCERN FORM

SAFETY CONCERN

Return completed form to Professor Mitch Cottenoir, Chemical Safety Officer

Name *(optional)* _____

Date _____

Contact e-mail (*optional*) _____

Department of concern _____

Laboratory of concern _____

Description of safety concern

_____

_____

_____

Suggested Corrective Action

_____

_____

SAFETY CONCERN

Return completed form to Professor Mitch Cottenoir, Chemical Safety Officer

Name *(optional)* _____

Date _____

Contact e-mail (*optional*) _____

Department of concern _____

Laboratory of concern _____

Description of safety concern

_____

_____

_____

Suggested Corrective Action

_____

_____

APPENDIX H

LAB PROCEDURE CHANGE FORM

LAB PROCEDURE CHANGE FORM

Title of Project _____

Project Owner Information

Project Owner _____

Department _____

Building _____ Room Number _____

Telephone _____ **Fax** _____

e-mail _____

Laboratory Information where project will be conducted:

Building _____ Room Number _____

Telephone _____

Laboratory contact person if other than owner

Name _____ **Title** _____

Telephone _____ **Email** _____

List of individuals working on this particular project (including students)

Name	Title	Chemical Hygiene Training Date

Brief non-technical abstract of planned work (Use other sheets if more space is needed):

_____

_____

_____

_____

_____

_____

Indicate applicable category of this project:

- ☐ **New proposal**
- ☐ **Addition or modification to existing proposal (Indicate additional project approval #)**
- ☐ **Teaching / Training**

List below the particularly hazardous chemicals that will be sued in connection with this project.

Chemical Name	Chemical Abstract Number (CAS)	Hazard Class (Carcinogen, Reactive, mutagen, etc)

What is your previous work experience wit the chemicals specified in Section 7?
(Use additional sheets if necessary):

_____

_____

_____

Are Material Safety Data Sheets (MSDS) available to all employees working on this project?

☐ **yes** ☐ **no If "no" please acquire all necessary MSDS**

CONTAINMENT AND SAFETY EQUIPMENT

Will a chemical fume hood be used: ☐ **yes** ☐ **no**

Indicate flow-rate and date the chemical fume hood was last tested: _____
(Chemical fume hoods require annual testing and certification)

Indicate Personal Protective Equipment (PPE) to be used:

Gloves (indicate type _____) Eye Protection (Indicate type _____)

Protective clothing (indicate type _____) Respiratory Protection *_____

Other (specify) _____
_____

* Note: If a respirator is used, the wearer must be examined by a health care professional to determine if the user is medically fit to wear a respirator. The Chemical Safety Officer will choose the appropriate respirator and provide fit testing for the user.

CHEMICAL WASTE DISPOSAL AND HAZARD COMMUNICATION

Perform a waste determination on all waste streams resulting from this project in accordance with the Waste Management Plan. Waste Streams identified:

_____

_____

_____

Is current emergency contact information posted in the laboratory where this project is to be performed?

☐ **yes** ☐ **no**

Indicate the type of fire extinguishers required

☐ **ABC**
☐ **D**
☐ **Not applicable**

Is that type available in the lab ☐ **yes** ☐ **no**

Date fire extinguishers were last inspected _____

Please indicate any additional information or components pertinent to the Chemical Safety Officer's review of this protocol:

_____

_____

_____

I have read and am familiar with the Chemical Hygiene Plan, Material Safety Data Sheets, safety practice, containment equipment, and laboratory facilities recommended for the chemicals used in this project. I agree that all faculty, staff and students working on this project will follow these recommendations as a condition of the Safety Committee approval of this project.

_____ _____

Date **Project Owner**

TO BE COMPLETED BY THE CHEMICAL SAFETY OFFICER ONLY

Date Received _____

Date Reviewed: _____

Approved **____ Yes** **____ No**

If no, explain: _____

If yes, assign approval #: _____

Date Returned to Project Owner: _____

Safety Director's Name _____ _____

(print) ***Signature***

APPENDIX I

CHP DOCUMENTATION (TRAINING/RECEIPT OF COPY)

"CHEMICAL HYGIENE PLAN (CHP) FOR LABORATORIES AT SOUTH PLAINS COLLEGE" DOCUMENTATION

Employee / Student: _____

Department: _____

Job Title / Major: _____

Telephone Number: _____

E-mail Address: _____

"Chemical Hygiene Plan (CHP) for Laboratories at South Plains College"

I acknowledge that I have been told where a copy of the "Chemical Hygiene Plan (CHP) for Laboratories at South Plains College" may be acquired. I will refer to the CHP as a working document. I will support and follow the CHP in my daily work at SPC.

_____ _____

Signature of Employee / Student Date

_____ _____

Signature of Chemical Safety Officer Date

"Chemical Hygiene Plan (CHP) for Laboratories at South Plains College" Training

I acknowledge that I have received training on the "Chemical Hygiene Plan (CHP) for Laboratories at South Plains College" As required by the Occupational Safety and Health Administration (OSHA) under the "Occupational Exposure to Hazardous Chemicals" standard (29 CFR 1910.1450), I have been instructed on:

- Contact information for Campus Security, the Coordinator of Safety Programs, and Laboratory Manager/Director of Human Resources/Safety Director the Safety Teams, and individuals specified in the CHP.
- My responsibilities under the CHP.
- The location and availability of the most recent edition of the "Chemical Hygiene Plan (CHP) for Laboratories at South Plains College".
- The location and availability of the "Occupational Exposure to Hazardous Chemicals" standards. (Also referred to as the OSHA Laboratory Standard.)
- The location and availability of the laboratory chemical inventory and collection of Material Safety Date Sheets (MSDSs).
- The location and availability of additional reference materials relating to laboratory safety and the use of hazardous materials.

_____ _____

Signature of Employee / Student Date

_____ _____

Signature of Chemical Safety Officer Date

APPENDIX J

29 CFR PART 1910.1450, OCCUPATIONAL EXPOSURES TO HAZARDOUS CHEMICALS IN LABORATORIES ("LAB STANDARD")

Regulations (Standards - 29 CFR)

Occupational exposure to hazardous chemicals in laboratories. - 1910.1450

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- **Part Number:** 1910
- **Part Title:** Occupational Safety and Health Standards
- **Subpart:** Z
- **Subpart Title:** Toxic and Hazardous Substances
- **Standard Number:** 1910.1450
- **Title:** Occupational exposure to hazardous chemicals in laboratories.
- **Appendix:** A , B

1910.1450(a)

Scope and application.

1910.1450(a)(1)

This section shall apply to all employers engaged in the laboratory use of hazardous chemicals as defined below.

1910.1450(a)(2)

Where this section applies, it shall supersede, for laboratories, the requirements of all other OSHA health standards in 29 CFR part 1910, subpart Z, except as follows:

1910.1450(a)(2)(i)

For any OSHA health standard, only the requirement to limit employee exposure to the specific permissible exposure limit shall apply for laboratories, unless that particular standard states otherwise or unless the conditions of paragraph (a)(2)(iii) of this section apply.

1910.1450(a)(2)(ii)

Prohibition of eye and skin contact where specified by any OSHA health standard shall be observed.

1910.1450(a)(2)(iii)

Where the action level (or in the absence of an action level, the permissible exposure limit) is routinely exceeded for an OSHA regulated substance with

exposure monitoring and medical surveillance requirements paragraphs (d) and (g)(1)(ii) of this section shall apply.

1910.1450(a)(3)

This section shall not apply to:

1910.1450(a)(3)(i)

Uses of hazardous chemicals which do not meet the definition of laboratory use, and in such cases, the employer shall comply with the relevant standard in 29 CFR part 1910, subpart Z, even if such use occurs in a laboratory.

1910.1450(a)(3)(ii)

Laboratory uses of hazardous chemicals which provide no potential for employee exposure. Examples of such conditions might include:

1910.1450(a)(3)(ii)(A)

Procedures using chemically-impregnated test media such as Dip-and-Read tests where a reagent strip is dipped into the specimen to be tested and the results are interpreted by comparing the color reaction to a color chart supplied by the manufacturer of the test strip; and

1910.1450(a)(3)(ii)(B)

Commercially prepared kits such as those used in performing pregnancy tests in which all of the reagents needed to conduct the test are contained in the kit.

1910.1450(b)

Definitions --

Action level means a concentration designated in 29 CFR part 1910 for a specific substance, calculated as an eight (8)-hour time-weighted average, which initiates certain required activities such as exposure monitoring and medical surveillance.

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Carcinogen (***see select carcinogen***).

Chemical Hygiene Officer means an employee who is designated by the employer, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the provisions of the Chemical Hygiene Plan. This definition is not intended to place limitations on the position description or job classification that the designated individual shall hold within the employer's organizational structure.

Chemical Hygiene Plan means a written program developed and implemented by the employer which sets forth procedures, equipment, personal protective equipment and work practices that (i) are capable of protecting employees from the health hazards presented by hazardous chemicals used in that particular

workplace and (ii) meets the requirements of paragraph (e) of this section.

Combustible liquid means any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

Compressed gas means:

(i) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F (21.1 deg. C); or

(ii) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F (54.4 deg C) regardless of the pressure at 70 deg. F (21.1 deg. C); or

(iii) A liquid having a vapor pressure exceeding 40 psi at 100 deg. F (37.8 C) as determined by ASTM D-323-72.

Designated area means an area which may be used for work with "select carcinogens," reproductive toxins or substances which have a high degree of acute toxicity. A designated area may be the entire laboratory, an area of a laboratory or a device such as a laboratory hood.

Emergency means any occurrence such as, but not limited to, equipment failure, rupture of containers or failure of control equipment which results in an uncontrolled release of a hazardous chemical into the workplace.

Employee means an individual employed in a laboratory workplace who may be exposed to hazardous chemicals in the course of his or her assignments.

Explosive means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

Flammable means a chemical that falls into one of the following categories:

(i) ***Aerosol, flammable*** means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame protection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;

(ii) ***Gas, flammable*** means:

(A) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of 13 percent by volume or less; or

(B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than 12 percent by volume, regardless of the lower limit.

(iii) ***Liquid, flammable*** means any liquid having a flashpoint below 100 deg F (37.8 deg. C), except any mixture having components with flashpoints of 100 deg. C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

(iv) ***Solid, flammable*** means a solid, other than a blasting agent or explosive

as defined in § 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

Flashpoint means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

(i) Tagliabue Closed Tester (See American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24 - 1979 (ASTM D 56-79)) - for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100 deg. F (37.8 deg. C), that do not contain suspended solids and do not have a tendency to form a surface film under test; or

(ii) Pensky-Martens Closed Tester (See American National Standard Method of Test for Flashpoint by Pensky-Martens Closed Tester, Z11.7 - 1979 (ASTM D 93-79)) - for liquids with a viscosity equal to or greater than 45 SUS at 100 deg. F (37.8 deg. C), or that contain suspended solids, or that have a tendency to form a surface film under test; or

(iii) Setaflash Closed Tester (see American National Standard Method of test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).

Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

Hazardous chemical means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems, and agents which damage the lungs, skin, eyes, or mucous membranes.

Appendices A and B of the Hazard Communication Standard (29 CFR 1910.1200) provide further guidance in defining the scope of health hazards and determining whether or not a chemical is to be considered hazardous for purposes of this standard.

Laboratory means a facility where the "laboratory use of hazardous chemicals" occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

Laboratory scale means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safety manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

Laboratory-type hood means a device located in a laboratory, enclosure on five sides with a movable sash or fixed partial enclosed on the remaining side; constructed and maintained to draw air from the laboratory and to prevent or minimize the escape of air contaminants into the laboratory; and allows chemical manipulations to be conducted in the enclosure without insertion of any portion of the employee's body other than hands and arms.

Walk-in hoods with adjustable sashes meet the above definition provided that the sashes are adjusted during use so that the airflow and the exhaust of air contaminants are not compromised and employees do not work inside the enclosure during the release of airborne hazardous chemicals.

Laboratory use of hazardous chemicals means handling or use of such chemicals in which all of the following conditions are met:

(i) Chemical manipulations are carried out on a "laboratory scale;"

(ii) Multiple chemical procedures or chemicals are used;

(iii) The procedures involved are not part of a production process, nor in any way simulate a production process; and

(iv) "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

Medical consultation means a consultation which takes place between an employee and a licensed physician for the purpose of determining what medical examinations or procedures, if any, are appropriate in cases where a significant exposure to a hazardous chemical may have taken place.

Organic peroxide means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer means a chemical other than a blasting agent or explosive as defined in § 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

Physical hazard means a chemical for which there is scientifically valid evidence tat it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer pyrophoric, unstable (reactive) or water-reactive.

Protective laboratory practices and equipment means those laboratory procedures, practices and equipment accepted by laboratory health and safety experts as effective, or that the employer can show to be effective, in minimizing the potential for employee exposure to hazardous chemicals.

Reproductive toxins means chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis).

Select carcinogen means any substance which meets one of the following criteria:

(i) It is regulated by OSHA as a carcinogen; or

(ii) It is listed under the category, "known to be carcinogens," in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or

(iii) It is listed under Group 1 ("carcinogenic to humans") by the International Agency for research on Cancer Monographs (IARC)(latest editions); or

(iv) It is listed in either Group 2A or 2B by IARC or under the category, "reasonably anticipated to be carcinogens" by NTP, and causes statistically significant tumor incidence in experimental animals in accordance with any of the following criteria:

(A) After inhalation exposure of 6-7 hours per day, 5 days per week, for a significant portion of a lifetime to dosages of less than 10 mg/m(3);

(B) After repeated skin application of less than 300 (mg/kg of body weight) per week; or

(C) After oral dosages of less than 50 mg/kg of body weight per day.

Unstable (reactive) means a chemical which is the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

Water-reactive means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

1910.1450(c)

Permissible exposure limits. For laboratory uses of OSHA regulated substances, the employer shall assure that laboratory employees' exposures to such substances do not exceed the permissible exposure limits specified in 29 CFR part 1910, subpart Z.

1910.1450(d)

Employee exposure determination --

1910.1450(d)(1)

Initial monitoring. The employer shall measure the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance routinely exceed the action level (or in the absence of an action level, the PEL).

1910.1450(d)(2)

Periodic monitoring. If the initial monitoring prescribed by paragraph (d)(1) of this section discloses employee exposure over the action level (or in the absence of an action level, the PEL), the employer shall immediately comply with the exposure monitoring provisions of the relevant standard.

1910.1450(d)(3)

Termination of monitoring. Monitoring may be terminated in accordance with the relevant standard.

1910.1450(d)(4)

Employee notification of monitoring results. The employer shall, within 15 working days after the receipt of any monitoring results, notify the employee of these results in writing either individually or by posting results in an appropriate location that is accessible to employees.

1910.1450(e)

Chemical hygiene plan -- General. (Appendix A of this section is non-mandatory but provides guidance to assist employers in the development of the Chemical Hygiene Plan).

1910.1450(e)(1)

Where hazardous chemicals as defined by this standard are used in the workplace, the employer shall develop and carry out the provisions of a written Chemical Hygiene Plan which is:

1910.1450(e)(1)(i)

Capable of protecting employees from health hazards associated with hazardous chemicals in that laboratory and

1910.1450(e)(1)(ii)

Capable of keeping exposures below the limits specified in paragraph (c) of this section.

1910.1450(e)(2)

The Chemical Hygiene Plan shall be readily available to employees, employee representatives and, upon request, to the Assistant Secretary.

1910.1450(e)(3)

The Chemical Hygiene Plan shall include each of the following elements and shall indicate specific measures that the employer will take to ensure laboratory employee protection;

1910.1450(e)(3)(i)

Standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals;

1910.1450(e)(3)(ii)

Criteria that the employer will use to determine and implement control measures to reduce employee exposure to hazardous chemicals including engineering controls, the use of personal protective equipment and hygiene practices; particular attention shall be given to the selection of control measures for chemicals that are known to be extremely hazardous;

1910.1450(e)(3)(iii)

A requirement that fume hoods and other protective equipment are functioning

properly and specific measures that shall be taken to ensure proper and adequate performance of such equipment;

1910.1450(e)(3)(iv)

Provisions for employee information and training as prescribed in paragraph (f) of this section;

1910.1450(e)(3)(v)

The circumstances under which a particular laboratory operation, procedure or activity shall require prior approval from the employer or the employer's designee before implementation;

1910.1450(e)(3)(vi)

Provisions for medical consultation and medical examinations in accordance with paragraph (g) of this section;

1910.1450(e)(3)(vii)

Designation of personnel responsible for implementation of the Chemical Hygiene Plan including the assignment of a Chemical Hygiene Officer, and, if appropriate, establishment of a Chemical Hygiene Committee; and

1910.1450(e)(3)(viii)

Provisions for additional employee protection for work with particularly hazardous substances. These include "select carcinogens," reproductive toxins and substances which have a high degree of acute toxicity. Specific consideration shall be given to the following provisions which shall be included where appropriate:

1910.1450(e)(3)(viii)(A)

Establishment of a designated area;

1910.1450(e)(3)(viii)(B)

Use of containment devices such as fume hoods or glove boxes;

1910.1450(e)(3)(viii)(C)

Procedures for safe removal of contaminated waste; and

1910.1450(e)(3)(viii)(D)

Decontamination procedures.

1910.1450(e)(4)

The employer shall review and evaluate the effectiveness of the Chemical Hygiene Plan at least annually and update it as necessary.

1910.1450(f)

Employee information and training.

1910.1450(f)(1)

The employer shall provide employees with information and training to ensure that they are apprised of the hazards of chemicals present in their work area.

1910.1450(f)(2)

Such information shall be provided at the time of an employee's initial assignment to a work area where hazardous chemicals are present and prior to assignments involving new exposure situations. The frequency of refresher information and training shall be determined by the employer.

1910.1450(f)(3)

Information. Employees shall be informed of:

1910.1450(f)(3)(i)

The contents of this standard and its appendices which shall be made available to employees;

1910.1450(f)(3)(ii)

the location and availability of the employer's Chemical Hygiene Plan;

1910.1450(f)(3)(iii)

The permissible exposure limits for OSHA regulated substances or recommended exposure limits for other hazardous chemicals where there is no applicable OSHA standard;

1910.1450(f)(3)(iv)

Signs and symptoms associated with exposures to hazardous chemicals used in the laboratory; and

1910.1450(f)(3)(v)

The location and availability of known reference material on the hazards, safe handling, storage and disposal of hazardous chemicals found in the laboratory including, but not limited to, Material Safety Data Sheets received from the chemical supplier.

1910.1450(f)(4)

Training.

1910.1450(f)(4)(i)

Employee training shall include:

1910.1450(f)(4)(i)(A)

Methods and observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

1910.1450(f)(4)(i)(B)

The physical and health hazards of chemicals in the work area; and

1910.1450(f)(4)(i)(C)

The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

1910.1450(f)(4)(ii)

The employee shall be trained on the applicable details of the employer's written Chemical Hygiene Plan.

1910.1450(g)

Medical consultation and medical examinations.

1910.1450(g)(1)

The employer shall provide all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, under the following circumstances:

1910.1450(g)(1)(i)

Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee shall be provided an opportunity to receive an appropriate medical examination.

1910.1450(g)(1)(ii)

Where exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the PEL) for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements, medical surveillance shall be established for the affected employee as prescribed by the particular standard.

1910.1450(g)(1)(iii)

Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.

1910.1450(g)(2)

All medical examinations and consultations shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place.

1910.1450(g)(3)

Information provided to the physician. The employer shall provide the following information to the physician:

1910.1450(g)(3)(i)

The identity of the hazardous chemical(s) to which the employee may have been exposed;

1910.1450(g)(3)(ii)

A description of the conditions under which the exposure occurred including quantitative exposure data, if available; and

1910.1450(g)(3)(iii)

A description of the signs and symptoms of exposure that the employee is experiencing, if any.

1910.1450(g)(4)

Physician's written opinion.

1910.1450(g)(4)(i)

For examination or consultation required under this standard, the employer shall obtain a written opinion from the examining physician which shall include the following:

1910.1450(g)(4)(i)(A)

Any recommendation for further medical follow-up;

1910.1450(g)(4)(i)(B)

The results of the medical examination and any associated tests;

1910.1450(g)(4)(i)(C)

Any medical condition which may be revealed in the course of the examination which may place the employee at increased risk as a result of exposure to a

hazardous workplace; and

1910.1450(g)(4)(i)(D)

A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.

1910.1450(g)(4)(ii)

The written opinion shall not reveal specific findings of diagnoses unrelated to occupational exposure.

1910.1450(h)

Hazard identification.

1910.1450(h)(1)

With respect to labels and material safety data sheets:

1910.1450(h)(1)(i)

Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.

1910.1450(h)(1)(ii)

Employers shall maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible to laboratory employees.

1910.1450(h)(2)

The following provisions shall apply to chemical substances developed in the laboratory:

1910.1450(h)(2)(i)

If the composition of the chemical substance which is produced exclusively for the laboratory's use is known, the employer shall determine if it is a hazardous chemical as defined in paragraph (b) of this section. If the chemical is determined to be hazardous, the employer shall provide appropriate training as required under paragraph (f) of this section.

1910.1450(h)(2)(ii)

If the chemical produced is a byproduct whose composition is not known, the employer shall assume that the substance is hazardous and shall implement paragraph (e) of this section.

1910.1450(h)(2)(iii)

If the chemical substance is produced for another user outside of the

laboratory, the employer shall comply with the Hazard Communication Standard (29 CFR 1910.1200) including the requirements for preparation of material safety data sheets and labeling.

1910.1450(i)

Use of respirators. Where the use of respirators is necessary to maintain exposure below permissible exposure limits, the employer shall provide, at no cost to the employee, the proper respiratory equipment. Respirators shall be selected and used in accordance with the requirements of 29 CFR 1910.134.

1910.1450(j)

Recordkeeping.

1910.1450(j)(1)

The employer shall establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required by this standard.

1910.1450(j)(2)

The employer shall assure that such records are kept, transferred, and made available in accordance with 29 CFR 1910.1020.

1910.1450(k)

[Reserved]

1910.1450(l)

Appendices. The information contained in the appendices is not intended, by itself, to create any additional obligations not otherwise imposed or to detract from any existing obligation.

[55 FR 3327, Jan. 31, 1990; 55 FR 7967, March, 6, 1990; 55 FR 12777, March 30, 1990; 61 FR 5507, Feb. 13, 1996; 71 FR 16674, April 3, 2006]

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WASTE MANAGEMENT PLAN

Presented to:

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JOB # SOU5100.RA, Task 03

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ACRONYM LIST

ACM	Asbestos Containing Materials
CAA	Central Accumulation Area (<90 day or <180 day storage area for LQG or SQG respectively)
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
DIY	Do-It-Yourselfer
DOT	Department of Transportation
EHS	Environmental Health and Safety
EPA	Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
ICR	Ignitable, Corrosive or Reactive
ICUT	Texas Association of Independent Colleges and Universities
LDR	Land Disposal Restriction
LQG	Large Quantity Generator
LQHUW	Large Quantity Handler of Universal Waste
NESHAP	National Emissions Standards for Hazardous Air Pollutants
PPRM	Paint and Paint Related Material
RCRA	Resource Conservation and Recovery Act
SAA	Satellite Accumulation Area
SPCC	Spill Prevention Control and Countermeasures
SQG	Small Quantity Generator
SQHUW	Small Quantity Handler of Universal Waste
RCRA	Resource Conservation and Recovery Act
TCEQ	Texas Commission on Environmental Quality
TCLP	Toxicity Characteristic Leaching Procedure
TSDF	Treatment, Storage or Disposal Facility
WMP	Waste Management Plan

GLOSSARY OF TERMS

Abandoned Materials that are disposed of or thrown away; burned or incinerated; or accumulated, stored or treated (but not recycled) before or in lieu of being disposed of, burned or incinerated.

Accumulation Start Date – Hazardous Waste in Satellite Storage

The date in which a container containing hazardous waste reaches 55-gallons (or 2.2 gallons of acutely hazardous waste). If less than 55-gallons of waste is in the container, the date in which a container is transferred to the less than 90-day or less than 180-day storage area.

Accumulation Start Date – Hazardous Waste in Central Storage

The date in which the waste is initially added to the storage container holding the hazardous waste.

Accumulation Start Date – Universal Waste

The date in which the waste is initially added to the storage container holding the Universal Waste.

Acute Hazardous Waste

Hazardous waste identified either on the "P-list" or having the following waste codes: F020, F021, F023, F027, and F028.

Asbestos Containing Materials

Any material found to contain asbestos.

Biohazardous Waste

See Medical Waste

Class 1 wastes

Any industrial solid waste or mixture of industrial solid wastes that because of its concentration, or physical or chemical characteristics is toxic, corrosive, flammable, a strong sensitizer or irritant, a generator of sudden pressure by decomposition, heat, or other means, or may pose a substantial present or potential danger to human health or the environment when improperly processed, stored, transported, or disposed of or otherwise managed, as further defined in §335.505 of this title (relating to Class 1 Waste Determination).

Class 2 wastes

Any individual solid waste or combination of industrial solid waste that are not described as Hazardous, Class 1, or Class 3 as defined in §335.506 of this title (relating to Class 2 Waste Determination).

Class 3 wastes

Inert and essentially insoluble industrial solid waste, usually including, but not limited to, materials such as rock, brick, glass, dirt, and certain plastics and rubber, etc., that are not readily decomposable, as further defined in §335.507 of this title (relating to Class 3 Waste Determination).

Commercial Chemical Product

A chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient.

Corrosivity This characteristic identifies solid wastes that have either of the following properties:

- it is aqueous and has a pH $\leq$2 or $\geq$12.5; and
- it is a liquid and corrodes steel at a rate greater than 0.25 inches per year at a test temperature of 130°F (55°C).

Electronic Waste (E-Waste)

Waste consisting of computers, monitors, cathode ray tubes (CRTs), radios, and other electronic equipment that is to be discarded and not recycled.

Hazardous Waste

A waste, when not properly handled or disposed, may present an unreasonable or substantial risk to human health or the environment. A solid waste qualifies as a hazardous waste if it falls under any one of the four (4) categories listed below and does not qualify for any of the exemptions or exclusions listed under Federal and/or State regulations.

1) A waste or waste generation process which has been specifically identified by EPA to be **"listed"** hazardous waste. Included under this category are products in their pure or off-specification form which are discarded and contain specific hazardous constituents.

2) Those solid waste and waste generation processes that have <u>not</u> been specifically listed by EPA but exhibit one or more of the four **characteristics** of hazardous waste irrespective of the manufacturing produces from which it is generated. The four characteristics are: ignitability (I), corrosivity (C), reactivity (R), or toxicity (T).
3) It is a **mixture** of a listed hazardous waste and any other material, or is a **mixture** of a characteristic waste and any other material, provided the mixture still exhibits the characteristic (i.e., mixture rule).
4) It is a residue that is **"derived from**" the treatment, storage, or disposal of a listed waste.

Ignitability This characteristic identifies solid wastes that are capable of causing a fire or exacerbating a fire once it has started during routine handling of material. These wastes include:

- *Liquids*: Other than an aqueous solution containing less than 24% alcohol by volume and has a flashpoint of less than 140°F (60°C);
- *Non-Liquids:* Capable under standard temperature and pressure of (1) causing fire through friction, absorption of moisture or spontaneous chemical changes and (2) when ignited burn so vigorously and persistent that it creates a hazard;
- *Ignitable Compressed Gases:* As defined under 49 CFR 173.300; and
- *Oxidizers:* As defined in 49 CFR 173.151.

Inherently Waste-Like

Materials that are inherently waste-like are materials that pose significant threats to human health and the environment if mismanaged (i.e., too hazardous to be unregulated). These materials have been designated with the EPA Hazardous Waste Codes F020 to F023 and F026 to F028, and secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed hazardous waste.

Medical Waste

Treated and untreated special waste from health care-related facilities that is comprised of animal waste, bulk blood, bulk human blood, bulk human body fluids, microbiological waste, pathological waste, and sharps as those terms are defined in 25 Texas Administration Code (TAC) §1.132 (relating to Definitions) from the sources specified in 25 TAC §1.134 (relating to Application), as well as regulated medical waste as defined in 49 Code of Federal Regulations §173.134(a)(5), except that the term does not include medical waste produced on a farm or ranch as defined in 34 TAC §3.296(f) (relating to Agriculture, Animal Life, Feed, Seed, Plants, and Fertilizer), nor does the term include artificial, nonhuman materials removed from a patient and requested by the patient, including, but not limited to, orthopedic devices and breast implants. Health care-related facilities do not include:

- single or multi-family dwellings; and
- hotels, motels, or other establishments that provide lodging and related services for the public.

Reactivity This characteristic identifies wastes that are unstable and may react violently or explode during stages of their management. Solid wastes that exhibit any of the following properties are classified as reactive wastes:

- normally unstable and readily undergoes violent change without detonating;
- reacts violently with water;
- forms potentially explosive mixtures with water;
- generates toxic gases, vapors or fumes in a sufficient quantity to pose a danger when mixed with water;

- cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or environment;
- capable of detonation or explosive reaction if it is subjected to a strong initiations source or if heated under confinement;
- readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure; and
- forbidden explosive as defined by DOT regulations or is a Class A explosive, or a Class B explosive as defined in DOT regulations.

Recycled Reused or reclaimed according to the following Table.

RECYCLED MATERIALS WHICH ARE SOLID WASTES

Secondary Material Categories	Use Constituting Disposal [§261.2(c)(1)]	Energy Recovery/Fuel [§261.2(c)(2)]	Reclamation [§261.2(c)(3)]	Speculative Accumulation [§261.2(c)(4)]
Spent Materials	*[1]	*	*	*
Sludge (listed in 40 CFR Part 261.31 or 261.32)	*	*	*	*
Sludge exhibiting a characteristic of hazardous waste	*	*	---[4]	*
By-products (listed in 40 CFR Part 261.31 or 261.32)	*	*	*	*
By-products exhibiting a characteristic of hazardous waste	*	*	---[4]	*
Commercial chemical products[2, 3] listed in 40 CFR 261.33	*	*	---[4]	---[4]
Scrap metal other than excluded scrap metal (see 40 CFR 261.1(c)(9)	*	*	*	*

Notes:

[1]Solid wastes are noted with an "*".

[2]Commercial chemical products are not solid wastes if land disposal is their ordinary manner of use.

[3]Commercial chemical products are not solid wastes if they are themselves fuels.

[4]Materials noted with a "---" are not solid wastes.

Solid Waste A solid waste, which can be a solid, liquid, semi-solid or gaseous material, is defined as any discarded material that is not specifically excluded. A "discarded material" is any material, which is either:

- Abandoned (i.e. thrown away or disposed of);
- Inherently waste like;
- Military munitions; or
- Recycled in a manner constituting disposal, burning for energy recovery, reclaimed or over accumulated.

Special Waste Special waste is any solid waste that requires special handling and disposal because of its quantity, concentration, physical or chemical characteristics, or biological properties. Special waste is defined in Title 30 Texas Administrative Code (30 TAC), Chapter 330, 330.3. Special waste that is not specifically identified in 30 TAC 330.171(c) or (d), or 330.173 requires prior written authorization by the TCEQ for disposal. Special wastes identified in, and meeting the requirements of, 30 TAC 330.171(c) and (d) do not require prior written authorization before disposal, provided the MSW landfill is permitted to accept these wastes. These include:

- Municipal hazardous waste from conditionally exempt small-quantity generators may be accepted at a Type I or Type IAE landfill provided the amount of waste does not exceed 220 lb (100 kg) per month per generator.
- Municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges.
- Liquid wastes from municipal sources that are treated or processed to eliminate free liquids and tested in accordance with 30 TAC 330.171(c)(7).
- Grease-trap and grit-trap wastes.
- Slaughterhouse wastes.
- Dead animals.
- Empty pesticide (insecticide, herbicide, fungicide, or rodenticide) containers that have been triple rinsed and rendered unusable.

Toxicity This characteristic measures the potential of a waste to leach toxic constituents into ground water when land disposed assuming mismanagement or co-disposal in an unlined, municipal solid waste landfill. Compounds, which are analyzed under the current Toxicity Characteristic Leaching Procedure (TCLP) test and their regulatory levels, are listed in Appendix A.

1.0 INTRODUCTION

This plan has been developed by HRP Associates, Inc., on behalf of South Plains College (SPC) to establish a program to comply with the regulations set forth in 40 CFR Subchapter I: Solid Waste and TCEQ Administrative Code Title 30, Part 1, Chapter 335, Subpart C, which also references adoption of Title 40 CFR Parts 260-268 of the Federal hazardous waste regulations with few exceptions and/or changes.

SPC is currently operating as a Small Quantity Generator (SQG) of hazardous waste and maintains Environmental Protection Agency (EPA) Facility ID: TXD982563058. As such, the hazardous waste management procedures detailed in this plan have been prepared to define the requirements of a Small Quantity Generator of Hazardous Waste. SPC manages some of its applicable hazardous waste as Universal Waste. This allows for longer storage times and the reduced burden of regulations on wastes such as used lamps, used batteries, used mercury-containing equipment, and paint and paint-related material. SPC is a Small Quantity Handler of Universal Waste (SQHUW) as defined as generating universal wastes, not treating or recycling on site, in amounts less than 5,000 kilograms at any given time.

This Waste Management Plan (WMP) addresses the total life cycle of hazardous waste generated at and disposed by South Plains College. Within this plan is guidance on classifying and analyzing waste, storing hazardous waste, inspecting hazardous waste storage areas, disposing of hazardous waste, complying with a waste minimization program, training employees on hazardous waste, establishing contingency plans, and preparing any state or federal required reporting.

This WMP also documents procedures and practices for the management of Universal Waste, used oil, medical waste, polychlorinated biphenyl (PCB) waste, aerosol cans, empty containers, asbestos containing materials, e-waste, special waste, and unknown wastes.

This plan is to be administered by SPC employees and by contractors working on their behalf.

1.1 LIMITATIONS

This plan is not intended to address the safe handling of chemicals in laboratories as required under OSHA regulation 29 CFR 1910.1450 nor is this plan intended to define the requirements for employees exposed to Asbestos Containing Materials as required under OSHA regulations 29 CFR 1910.1001, 29 CFR 1926.1101, or 40 CFR 763.92. SPC has a Chemical Hygiene Plan under a separate cover, which addresses the safe handling, storage and usage of chemicals in laboratories. SPC should review the requirements set forth in the aforementioned regulations associated with safe lab practices and asbestos to assure all staff and students meet the necessary requirements.

1.2 LOCATIONS

Copies of this WMP are available electronically on the South Plains College website.

2.0 RESPONSIBILITIES

It is the responsibility of all employees, students, and contractors working on behalf of SPC to handle, store, and dispose of hazardous waste, universal waste, biohazardous waste, and regulated non-hazardous waste in a manner that is in compliance with all applicable state and federal regulations.

2.1 DIRECTOR OF PHYSICAL PLANT

The South Plains College Director of Physical Plant has the ultimate responsibility for proper waste handling and provides along with other officers and administrators, support for efforts to minimize waste generation and comply with all applicable waste regulations. The Director supervises and authorizes the faculty and staff to take steps necessary to carry out the objectives of the WMP including the following:

1. Providing the necessary resources, training, and staffing required to implement the WMP.

2. Monitoring the implementation of the WMP at all applicable levels of administration with South Plains College.

3. Ensuring that any required licensing, permits, or approval from local, state, and federal agencies to purchase, store, use, synthesize, administer, and/or dispose of any hazardous material, prescribed medication, or controlled substance.

2.2 MAINTENANCE SUPERVISOR

For the purpose of this plan, the Maintenance Supervisor will serve as the Environmental Health Safety (EHS) Officer. The EHS Officer of STC is responsible for the day-to-day activities associated with hazardous waste, universal waste, biohazardous waste, and regulated non-hazardous waste management including, but not limited to:

1. Working with the appropriate personnel to evaluate, implement, and update the WMP on a routine basis. Providing technical expertise and administrative support to the faculty and staff and direct inquiries to appropriate resources.

2. Aiding in hazardous waste stream determinations and consulting with faculty and staff each semester to ensure that waste stream determinations continue to be completed each semester for new waste streams.

3. Assisting the departments in ensuring that hazardous waste, universal waste, biohazardous waste, and non-hazardous waste, containers are appropriately labeled, handled, stored, and managed.

4. Conducting, or designating the conducting of, weekly inspections of centralized accumulation areas (CAA) and satellite accumulation areas (SAA) for hazardous waste collection. These Inspection Forms have been provided in Appendix D.

5. Acting as a liaison between campus hazardous waste operations and the Facilities office. Bring unresolved and potentially serious waste related issues to the Dean's attention.

6. Maintaining records and making them available to employees, administrative personnel, and state or federal officials.

7. Monitoring use and disposal of laboratory chemicals.

8. Training, or coordinate the training of, all applicable SPC employees and other personnel who may handle, generate or prepare hazardous waste for shipment. This includes both RCRA Hazardous Waste Management Training (annual) and DOT Hazardous Materials Training (every 3 years).

9. Coordinating waste pickups, from all departments, and with off-site vendors.

10. Familiarizing oneself with laboratory procedures and all other applicable campus emergency plans which are maintained under separate cover.

2.3 FACULTY AND STAFF

Faculty and staff, who have the responsibility of Environmental Health & Safety of a campus operation or the responsibility of instruction of students at South Plains College, participate in the implementation of this WMP and overall proper waste practice by:

1. Informing and training students and workers on waste procedures as it applies to activities in their areas.

2. Performing and documenting waste stream determinations for waste generated by their activities.

3. Ensuring student and lab worker compliance with the WMP.

4. Before each lesson, teaching students about proper waste disposal as it applies to that day's activity.

5. Ensuring that all containers of hazardous waste, universal waste, biohazardous waste, and regulated non-hazardous wastes are properly labeled, closed, and stored; and,

6. Requesting assistance, if needed, from the Environmental Health and Safety

Officer.

2.4 STUDENT AND LAB WORKERS

Students and lab workers participate in the implementation of this WMP and overall proper waste disposal:

1. Following all rules and procedures established in the WMP as communicated by staff and faculty.

2. Aiding in waste stream determinations for waste generated by their activities.

3. Requesting information and training if not sure about proper waste procedures.

3.0 HAZARDOUS WASTE GENERATOR STATUS

Each generator of hazardous waste must determine their generator status for each calendar month. This exercise is necessary to identify those regulatory requirements in which South Plains College must comply. The generator status is determined by the sum of hazardous waste ***generated*** on site, not the amount shipped, in one calendar month. Additionally, there are limitations on aggregate storage that may affect one's generator status.

There are three generator categories for hazardous waste and two categories for universal waste as defined in Table 1. SPC is currently registered and operating as a SQG of hazardous waste. They are also categorized as a SQHUW. These categories are defined in the table below.

Table 1: Generator Status Defined

Generator Category	Amount of Hazardous Waste Generated in a Month (unless otherwise noted)	Amount of Acute Hazardous Waste Generated in a Month	Amount of Residue or Contaminated Debris from a Spill of Acute Hazardous Waste	Maximum Amount of Waste Stored on Site at Any Given Time
HAZARDOUS WASTE STATUS				
Conditionally Exempt Small Quantity Generator (CESQG)	< 100 kilograms (< 220 pounds)	< 1 kilogram (<2.2 pounds)	< 100 kilograms (< 220 pounds)	≤ 1000 kg (≤2,200 lbs) or ≤1 kg (≤2.2 lbs) of acute hazardous waste
Small Quantity Generator (SQG)	**< 1000 kilograms (< 2200 pounds)**	**< 1 kilogram (<2.2 pounds)**	**< 100 kilograms (< 220 pounds)**	**≤ 6000 kg (≤13,200 lbs) or ≤1 kg (≤2.2 lbs) of acute hazardous waste**
Large Quantity Generator (LQG)	≥ 1000 kilograms (≥ 2200 pounds)	≥ 1 kilogram (>2.2 pounds)	≥ 100 kilograms (> 220 pounds)	> 6000 kg (>13,200 lbs) or >1 kg (>2.2 lbs) of acute hazardous waste
UNIVERSAL WASTE STATUS				
Small Quantity Handlers of Universal Waste (SQHUW)	**< 5000 kilograms of Universal Waste (< 110,000 pounds) At any time**	**N/A**	**N/A**	**Accumulate no more than one year**
Large Quantity Handlers of Universal Waste (SQHUW)	≥ 5000 kilograms of Universal Waste (≥ 110,000 pounds) At any time	N/A	N/A	Accumulate no more than one year

3.1 REQUIREMENTS

SPC is registered as a Small Quantity Generator (SQG) of hazardous waste since it generates greater than 220 pounds but less than 2,220 pounds of hazardous waste per month. SPC must comply with all the requirements (i.e. container management, personnel training) of a SQG. Close monitoring of campus status must be ensured when wastes are generated and when conducting periodic laboratory clean-outs. If SPC consistently generates less than 220 pounds of hazardous waste per month, the generator status may be reduced to a Conditionally Exempt Small Quantity Generator (CESQG).

As a SQG, SPC will follow the following practices as required by a SQG:

1. Not store in excess of greater than 6,000 kilograms (13,200 pounds) of hazardous waste or greater than 1.0 kilogram (2.2 pounds) of acute hazardous waste at any given time;
2. Not generate greater than 2,200 pounds of hazardous waste, or greater than 2.2 pounds of acute hazardous waste, in any one (1) calendar month;
3. Store waste on site for no more than 180 days;
4. Complete hazardous waste determinations on all waste streams to determine proper handling and disposal;
5. Use a manifest for all off-site shipments of hazardous waste (see Sections 3.3 and 7.0 of this plan);
6. Mark (label) each container of hazardous waste with appropriate labels including the words “hazardous waste” and “other words that identify the contents of the containers such as the chemical name” (see Section 5.0, and Appendix C of this plan).
7. Place the waste in appropriate containers. (see Section 5.0 of this plan);
8. Establish and document emergency preparedness procedures and contingency plans (see Section 10.0 of this plan);
9. Conduct annual training (see Section 9.0 of this plan);
10. Perform weekly inspections of the CAA and regular inspections of the SAA (see Section 6.0 and Appendix D of this plan); and

As a Small Quantity Handler of Universal Waste (SQHUW), SPC must:

1. Store universal waste (lamps, damaged or leaking batteries, damaged or leaking mercury-containing equipment) in containers or packages that are structurally sound and adequate to prevent breakage (Section 5.3);
2. Select containers compatible with the universal waste;
3. Ensure containers are closed except when adding or removing waste;
4. Label containers with the words “Universal Waste” and other descriptive words such as “Universal waste – lamps,” “Universal Waste – batteries,” or “Universal Waste – mercury containing devices;” and
5. Store waste for no more than 1 year from the date waste was first placed in the container.

3.2 EPA ID NUMBER

SPC is currently registered, as required, with the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA) as a generator of hazardous waste. SPC is currently operating and classified as a Small Quantity Generator of Hazardous Waste (SQG) since the institution generates greater than 220 pounds of hazardous waste but less than 2,200 pounds, or less than 2.2 pounds of acute hazardous waste, per month.

SPC's EPA ID Number is: TXD982563058.

3.3 MANIFESTING

Prior to *any* off-site shipment of hazardous waste from South Plains College, a hazardous waste manifest is completed and accompanies *all* off-site shipments.

The hazardous waste manifest is presented on 8½" x 11" paper and contains six (6) copies. Once the waste is loaded on the truck for shipment, the designated appointee from SPC must print and sign his/her name and dates the manifest. At that time, the truck driver transporting the waste prints and signs his/her name and dates the manifest. SPC maintains one copy of the manifest at the time of shipment. The six (6) copies of the manifest are distributed as follows:

Copy 1: When the manifest is completed by the Treatment, Storage and Disposal Facility (TSDF), he mails this copy to the State where the TSDF located.

Copy 2: When the TSDF has completed this section of the manifest, he mails this copy to the State where the waste was generated.

Copy 3: When the TSDF has completed this section of the manifest, he mails this copy back to SPC for their records.

Copy 4: When the TSDF has completed this section of the manifest, he keeps this copy for his records.

Copy 5: When the Transporter has completed his section and transfers the waste to the TSDF, he keeps this copy for his records.

Copy 6: When SPC and the Transporter have completed their sections of the manifest (including signatures) and the hazardous waste has been transferred to the vehicle, SPC keeps this copy of the manifest for their records.

When Copy 3 of the manifest is returned to SPC, it is attached to Copy 6 and any other records associated with the shipment (i.e. LDR, emergency response

information, lab pack inventories, etc) and must be retained on-site for a minimum of three (3) years. The original manifest must be retained by the SPC EHS officer.

Those signing manifests on behalf of SPC must be trained in Department of Transportation (DOT) procedures, which requires training at least every three (3) years.

If Copy 3 is not returned to SPC within 45 days, the campus should call the TSDF to check on the status of the waste shipment. If the manifest copy has not been returned within 60 days, SPC should notify legal council. As a SQG, it is necessary for South Plains College to submit an Exception Report to TCEQ when the signed copy of a hazardous waste manifest is not returned to the generator by the transportation, storage and disposal facility (TSDF) within 45 days. The exception report is to be submitted to TCEQ and is to include a legible copy of the manifest which the generator does not have confirmation of delivery and a cover letter signed by the generator explaining the efforts taken to locate the hazardous waste and the results of those efforts.

Manifests are not required for the off-site disposal of used oil, regulated non-hazardous waste, or biohazardous waste. However, it is a Best Management Practice by both SPC and its vendor to utilize a manifest or Bill of Lading, where appropriate, to document all off-site shipments of waste materials and recycled, reclaimed, or donated materials. SPC should maintain copies of all waste disposal documents for at least three (3) years. Whereas three (3) years is the required record keeping time period, due to the liability involved with waste disposal, permanent record keeping of waste disposal documents is recommended.

3.4 LAND DISPOSAL RESTRICTIONS (LDR)

Hazardous waste that is restricted from land disposal (see 40 CFR Part 268.7(a)(4)), must comply with the following:

1. If a hazardous waste is subject to LDR and does not meet applicable treatment standards, SPC must submit a one-time written notice to each treatment, storage, or disposal facility, which receives the initial shipment of waste. This one-time notice accompanies the manifest and must include the information listed below.

    - EPA hazardous waste code(s)
    - Identification of the waste as a wastewater or non-wastewater
    - Manifest number associated with the waste shipment
    - Waste analysis data (if available)
    - For certain wastes, any additional hazardous constituents present

- Where hazardous debris is to be treated by an alternative technology under 40 CFR 268.45, a statement to that effect and the contaminants subject to treatment.

No additional notices are required unless the waste or receiving facility changes.

2. If the waste meets the applicable treatment standards, SPC must submit a one-time notice and signed certification stating that the waste meets the required treatment standards to each treatment, storage or disposal facility which receives the initial shipment of waste. The notice must include the items listed above and the certification, which must be signed by an authorized representative.

Records of the LDR must be retained with the copy of the waste manifest (i.e. staple the original copy of the waste manifest to the LDR statement and the returned copy of the manifest indicating successful shipment to the final disposal facility.) Typically, the hazardous waste vendor used by SPC generates the LDR. However, SPC is ultimately responsible to ensure that the LDR is completed and maintained with the manifest in University's files.

4.0 WASTE IDENTIFICATION, CHARACTERIZATION, AND ANALYSIS

4.1 HAZARDOUS WASTE

SPC has identified all known hazardous wastes generated on campus by completing a department-by-department waste stream determination of all generated wastes. **Spreadsheets of the completed waste stream determinations (by department) are available in Appendix B.**

If a new waste is generated at the College, a determination must be made as to whether the waste is hazardous. Faculty and staff's knowledge of the process generating the waste, any associated material safety data sheets (MSDS), and lab analyses are tools that can be used in this determination.

Solid Waste (see definition in glossary) is a hazardous waste when it is:

1. Listed (P-list, U-list, F-list, K-list);
2. Characteristic of hazardous waste (ignitable, corrosive, toxic, reactive);
3. Derived from hazardous waste; or,
4. Mixed with hazardous waste.

The P-list, U-list and F-list are available in Appendix A. The K-list is not included, as it typically does not apply to college campuses. Definitions of the characteristics of hazardous waste are found both in the Glossary of Terms as well as incorporated into Figure 1, located in Appendix A.

Figure 1, located in Appendix A, includes a flow chart and hazardous waste determination form to aid in waste determination and analysis. This completed form is to be maintained on campus with other documentation related to hazardous waste as proof of waste determination.

4.2 UNIVERSAL, PAINT, AND PAINT-RELATED MATERIAL WASTE

According to 40 CFR 273 Subpart A, the following hazardous waste streams may be managed as Universal Waste.

- Hazardous waste batteries (40 CFR 273.2);
- Waste or recalled pesticides (40 CFR 273.3);
- Mercury containing equipment (40 CFR 273.4); and
- Universal waste lamps (i.e. fluorescent lamps, exit sign lights, street lights, and those meeting the characteristics of a hazardous waste) (40 CFR 273.5).

In Texas, Paint and Paint-Related Material (PPRM) is also included as universal waste. Under 30 TAC 335.262, PPRW is defined as:

- Used or unused paint and paint-related material which is "hazardous waste" as defined under 335.1(56) and as determined under 335.504;
- Any mixture of pigment and a suitable liquid that forms a closely adherent coating when spread on a surface or any material that results from painting activities.

SPC generates universal waste from the following locations/operations on campus, as identified in Table 2.

Table 2: List of Universal Waste Generated at South Plains College

Campus Operation/Location	Universal Waste(s) Generated
Maintenance Department	Collection point for campus wide Universal Waste and PPRM generation including bulbs, ballasts and mercury containing devices.
Automotive Services	Grit trap wastes, spent floor sweep
Auto Collision	Grit trap wastes, PPRM
Grounds Department	Spent oil filters
Fine Arts	PPRM

All generated universal waste on the SPC campus is shipped off-site to a regulated facility. Universal waste manifests are provided for record retention by the EHS officer within Appendix I of this WMP, with copies maintained by the generating department (See Section 3.3 of this plan for manifest information).

4.3 UNKNOWN WASTES

Occasionally, unknown wastes are generated or discovered. This may occur when waste is generated from a new process and the waste has not yet been analyzed as to its hazards or during inventory clean-outs when the original product label is no longer legible. Unknown waste presents a particularly dangerous threat since the hazards are not know. *Unknown waste should be treated as hazardous waste until the waste can be characterized.*

Professor or student knowledge of the process generating the waste as well as laboratory analytical procedures can be used to identify the waste (Refer to Figure 1 in Appendix A). Lab analysis, and the associated cost, to perform on the unknown waste may include the following:

- Flashpoint/Ignitability (approximately $50 per analysis)
- pH/Corrosivity (approximately $10 per analysis)
- TCLP Volatiles (approximately $110 per analysis)
- TCLP Semi-volatiles (approximately $160-$195 per analysis)
- TCLP Pesticides (approximately $75-$110 per analysis)

- TCLP Herbicides (approximately $105-$140 per analysis)
- TCLP Metals (approximately $65-$100 per analysis)

As with any hazardous waste, unknown waste must be labeled and stored properly. Unknown waste label templates are available in Appendix C. For proper methods for the storage of unknown wastes, refer to Section 5.0 for the storage of hazardous waste.

4.4 EMPTY CONTAINERS

Empty containers may be considered hazardous waste if not managed properly. For containers that have been utilized for the storage of acute hazardous waste (P-listed waste and some F-listed waste), the container must be ***triple rinsed*** to be considered empty and no longer hazardous waste. The rinsate from this process must be collected and waste determinations performed to determine if the rinsate is hazardous. Or, the college may collect the container without triple rinsing and dispose of the container as hazardous waste.

For non-acute hazardous waste (U-listed, some F-listed, K-listed and characteristic waste) the container is considered empty if:

- All waste has been removed that can be removed and;
- Less than 1 inch of residue remains in the container or;
- No more than 3% by weight of the total capacity of the container remains in a container sized less or equal to 110 gallons; or
- No more than 0.3% by weight of the total capacity of the container remains in a container sized more than 110 gallons.

If containers are not "empty" per the requirements listed above, they must be treated as hazardous waste. If the containers meet the regulatory definition of empty, then the containers should be identified as "empty" to ensure proper disposal. An empty label template is provided in Appendix C.

Empty containers of raw materials or virgin chemicals become wastes when materials are emptied from such containers as reasonably attainable. When this is achieved, the waste rule as noted above applies. Empty containers containing non-hazardous waste materials may be disposed of in the general refuse provided no visible materials remain within the container.

4.5 AEROSOL CANS

An aerosol can typically becomes waste when 1) the can has lost its spray nozzle before the contents have been completely used, 2) the can runs out of propellant before the contents have been completely used, 3) the generator no longer has a use for that product, or 4) the product has been completely used and the empty, pressurized can remains.

An aerosol can, even one in which its contents have been completely used, by itself is usually considered hazardous waste because it exhibits the characteristic of reactivity (D003). That is, it is capable of detonation or explosive reaction if it is subjected to a strong initiating source *or it is heated under confinement.*

Each department at SPC will establish a storage area for waste aerosol cans. When the storage area is full, or at the end of each semester, a request is made with the Facilities Department to collect the accumulated waste aerosol cans, and transport them to Facilities where the cans are collected. Aerosol cans from PPRM are to be disposed as universal waste. All other cans will be disposed of as hazardous waste.

Aerosol can puncturing devices may be used to completely empty aerosol cans and make them non-reactive. Punctured and drained aerosol cans meet the definition of an empty container and are exempt from management as hazardous waste. The contents of the aerosol cans must be evaluated to see if they need to be collected as hazardous waste when punctured (i.e. a flammable paint would need to be collected in a container when punctured and identified with a D001 waste code).

5.0 WASTE STORAGE

Hazardous waste and universal waste (except for batteries and used mercury containing equipment unless damaged or leaking), by regulation, must ultimately be placed in closed containers or tanks, containment structures, bins, or buildings. For the purposes of SPC, the majority of hazardous waste is collected in containers, typically in small-scale laboratory bottles (1 ounce to 5 gallons), but also 5, 30 and 55-gallon drums or pales are utilized.

SPC maintains only satellite accumulation areas (SAAs) as identified in Table 4. SPC does not have a central accumulation area.

Table 3: Accumulation Areas

Location of Storage Area	Area Type	Hazardous Waste Accumulated	Storage Area's Owner
Science Building: Various Labs	SAA	Hazardous Wastes from sciences: laboratory chemical waste	Specific Department Head
Automotive Services	SAA	Grit trap wastes	Department Head
Auto Collision	SAA	Grit trap wastes, paint and related wastes	Department Head
Grounds Department	SAA	Spent oil filters	Director Physical Plant
Maintenance	SAA	Spent fluorescent bulbs, ballasts, mercury containing devices, paint and related waste	Director Physical Plant

5.1 SATELLITE ACCUMULATION AREAS

SPC maintains satellite accumulation areas (SAAs) as identified in Table 4. SAAs are not required to be inspected on a weekly basis, but is recommended as a Best Management Practice. Examples of the weekly inspection logs to be performed and maintained are located in Appendix D.

Management of these SAAs includes:

- Accumulating no more than 55 gallons of hazardous waste or 1 quart of acutely hazardous waste at any one time;
- Locating the SAA at or near the point of generation (i.e. within the same laboratory or classroom);
- Controlling the containers by the operator(s) of the generating process;

- Marking the containers with the words "hazardous waste" and/or other words identifying the contents of the container (example: Hazardous Waste – Used Halogenated Organic Solvents);
- Closing containers except when adding or removing waste;
- Ensuring that all waste containers are in good condition; and
- Ensuring containers are compatible with the waste enclosed within.

Appropriate labeling of SAAs is an important component of hazardous waste compliance. Located within Appendix C, please find the approved labels to be used on all accumulated wastes stored in SAAs throughout South Plains College's campus. If the satellite container is too small or oddly shaped to accommodate the labels provided, ensure that the same information is displayed by other means such as a hang tag.

5.2 CENTRAL HAZARDOUS WASTE ACCUMULATION AREA

As a SQG, South Plains College may have a Central Accumulation Area (CAA); however, they currently do not have a CAA. All hazardous waste generated at SPC is stored in Satellite Accumulation Areas (SAAs). The transport and disposal of the hazardous waste occurs directly from the SAA by SPCs waste disposal vendors.

5.3 UNIVERSAL WASTE STORAGE

The benefits of utilizing universal waste regulations for the management of some hazardous waste includes less stringent regulatory requirements and the ability to store the waste for longer periods of time.

SPC is a Small Quantity Handler of Universal Waste (SQHUW). Universal waste is collected in various areas around campus and consolidated in the Maintenance area. Example labels that may be used for collection units of universal waste are available in Appendix C. Containers of universal waste should be closed except when adding or removing wastes. Dating the label as soon as the first item of waste is placed within the container is imperative as there is a one-year storage limit on universal wastes. For batteries or mercury devices a clipboard with an accumulation log denoting periodic additions to storage bins is a good way to track the date requirements. Used batteries and mercury-containing devices only have to be in closed containers if leaking or damaged.

6.0 WASTE ACCUMULATION AREA INSPECTIONS

Faculty and staff of SPC perform at least weekly inspections of the satellite accumulation areas (SAAs). The PCB containing equipment inspections are also conducted monthly (see section 12.4 for PCB storage). These inspections are performed by one knowledgeable in the regulations pertaining to hazardous waste and who has participated in annual RCRA Hazardous Waste Training. Examples of the inspections to be completed are provided in Appendix D of this WMP. Completed inspections should be maintained for three (3) years.

At the time of the inspection of the SAAs, all waste in the accumulation areas will be accounted for on the Hazardous Waste Accumulation Log (Appendix D). The accumulation date and the quantity and type of waste will be listed on the Accumulation Log. When the waste is shipped off site for disposal, the date will be entered into the Accumulation Log.

Use of this log will provide the necessary documentation to indicate that the waste removed was not all generated during the month the material was disposed. The log will allow SPC to store hazardous waste on-site up to the lesser of 180 days or 13,200 pounds before removing the material through a waste vendor. This will decrease the number of disposal events and costs to the University while maintaining SQG status.

Note: As a SQG, weekly inspections of a central accumulation areas would be required; whereas, weekly inspections of SAAs are a best management practice.

7.0 WASTE DISPOSAL

All hazardous waste that is shipped off-site is accompanied by a manifest, and as appropriate, a land disposal restriction (see Section 3.3 and 3.4). The manifest will list the names of the generator, the transporter, and the receiving facility along with their addresses, telephone numbers, and EPA ID numbers.

The generator's copy of the manifest, which has the signatures of the generator and transporter, will be retained by SPC when the waste is shipped. **Within forty-five (45) days from the day the material was removed from campus, SPC should receive the final copy of the manifest, which contains the signature of the receiving facility. The original copy and the copy returned by the receiving facility are filed on-site in the SPC environmental files for three (3) years.**

If SPC does not receive the copy of the manifest back from the receiving facility within thirty-five (35) days, SPC will call the receiving facility to check the status of the waste shipment. After forty-five (45) days, if the waste has not been received by the receiving facility, SPC should notify legal counsel of the situation and submit an Exception Report to TCEQ.

If SPC uses an outside contractor to containerize, mark, label, manifest and/or ship hazardous waste, non hazardous waste, used oil, universal waste, and medical/biohazard waste, SPC understands that they are ultimately responsible for all waste generated by the College, and using the contractor does not relinquish them of their responsibilities as a generator of hazardous waste.

Manifests are not required for the off-site shipments of used oil, non hazardous waste, or biomedical waste. However, it is a best management practice for both SPC as a generator and its vendor to utilize a manifest or bill of lading where appropriate to document all off-site shipments of waste materials and recycled, reclaimed, or donated materials.

The activities of the outside contractor will be supervised and managed by the SPC EHS officer. The current vendors utilized by SPC for disposal of all wastes including hazardous wastes, universal wastes, medical wastes, and used oil are:

Hazardous Waste
VTECH 1510 BUDDY HOLLY LUBBOCK, TX 79401 (806) 748-1700
Universal Waste-Used Lamps/Batteries
WM LAMP TRACKER, INC 2007 WEST COUNTY ROAD C-2 ROSEVILLE, MN 55113 (800) 664-1434

Universal Waste-Car Batteries
INTERSTATE BATTERIES 1501 82ND STREET LUBBOCK, TX 79423-2507 (806) 745-1175
Universal Waste-Specialty Batteries
BATTERY SOLUTIONS, INC. 2301 AVENUE B LUBBOCK, TX 79404 (806) 771-3777
Used Oil/Paint & Paint Related Waste
SAFETY-KLEEN 1750 WEST LOOP 335 SOUTH AMARILLO, TX 79110 (806) 622-4070
Electronic Waste
STATE OF TEXAS, DEPARTMENT OF CRIMINAL JUSTICE 209 WEST 14TH STREET AUSTIN, TX 78701 (512) 463-9988
Biomedical Waste
STERICYCLE 8 PHILLIPS DRIVE MIDFIELD, AL 35228-2233 (205) 923-1131
Silver Recovery - Photography
TO BE DETERMINED DISPOSAL HAS NOT BEEN NECESSARY TO DATE WASTE WILL BE HANDLED BY AN APPROVED SILVER RECOVERY/DISPOSAL COMPANY

8.0 WASTE MINIMIZATION PROGRAM

Since 1984, LQGs and SQGs of hazardous waste have been required to certify on their hazardous waste manifests that they have a "waste minimization program." This certification reads as follows:

> *I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transportation according to applicable international and national government regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgement of Consent.*
>
> *I certify that the waste minimization statement identified in 40CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.*

EPA regulation 40 CFR 262.27 Waste Minimization Certification specifically states:

> *A generator who initiates a shipment of hazardous waste must certify to one of the following statements in Item 15 of the uniform hazardous waste manifest:*
>
> *(a) "I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;" or*
>
> *(b) "I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."*

Regardless of their generator status, SPC will make every effort to reduce the amount of non-hazardous, universal, medical, used oil, E-waste and hazardous waste on campus. This will include, but is not limited to, maintaining an inventory control system to avoid the unnecessary accumulation of chemicals.

The EPA has established guidance recommending six key elements that should be incorporated into a waste minimization program. These key elements are:

- Top management support;

- Characterization of waste generation and waste management costs;
- Periodic waste minimization assessments;
- Cost allocation system;
- Encourage Technology transfer; and
- Program implementation and evaluation.

SPC will practice the key elements recommended by EPA in the following ways:

Key Element	Implementation
1. Top management support	• This Waste Management Plan was requested by and submitted to the upper management of SPC (Mr. Cary Morrow, Director of Physical Plant). • SPC trains appropriate employees annually on the waste generated and associated impacts resulting from the way associates conduct their work procedures.
2. Characterization of waste generation and waste management costs	• Waste is characterized according to Section 4 of this Plan. • Waste generation is accounted in the Waste Accumulation Log as described in Section 6 of this Plan. • Waste costs are maintained by the EHS Coordinator. Waste agreements and contracts are maintained in the campus-wide Environmental Files.
3. Periodic waste minimization assessments	• SPC continuously strives for process improvement and optimization to reduce waste and thus reduce costs. • SPC recycles waste when possible. Currently the campus recycles used lamps, batteries, oil and paper. • SPC maintains a Chemical Hygiene Plan that outlines chemical procurement procedures to ensure that excess chemicals are not purchased.
4. Cost allocation system	• SPC maintains invoices for not only the cost to dispose of hazardous waste, but also the cost of contractors to manage their hazardous waste activities.

Key Element	Implementation
5. Encourage Technology Transfer	• SPC is a member of the Texas Association of Community Colleges (TACC). Through the association, SPC participates in a peer audit program where peers not only audit each other's campus, but also share best management practices, success stories, and opportunities for improvement.
6. Program implementation and evaluation	• As appropriate, opportunities to reduce waste and optimize efficiency are implemented. This element combines the principals of each of the elements listed above.

9.0 WASTE MANAGEMENT TRAINING

9.1 RCRA HAZARDOUS WASTE TRAINING

As a SQG, SPC should ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies. RCRA hazardous waste training will be conducted annually for those employees who manage and/or handle hazardous waste. **A written description of the training provided along with the roster of the personnel attending the training will be maintained on site for three (3) years or the time of the individual's employment, whichever is longer. The roster of attendees includes the trainee's name and job title.**

Appendix E contains a sample roster that can be used during training. Copies of all training materials and classes completed will be maintained in the campus Environmental Files.

Elements of the hazardous waste training may include:

- Hazardous waste determination;
- Manifests;
- Container labeling and securing;
- Waste storage;
- Waste inspections;
- Universal Waste;
- Other waste (medical, e-waste etc.)
- Emergency procedures;
- Emergency equipment; and
- Emergency systems.

Additionally, the Department of Transportation (DOT) requires that those preparing the waste for shipment and those signing shipping papers for hazardous waste (i.e. manifests) are trained in DOT regulations every three years.

9.2 UNIVERSAL WASTE TRAINING

A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility. This universal waste training material will be incorporated in the annual RCRA training.

10.0 CONTINGENCY PLAN AND PREPAREDNESS AND PREVENTION

10.1 CAMPUS OPERATIONS

The operations at SPC are conducted in a manner to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste. The Chemical Compatibility Chart (located in Appendix F) is used to ensure the proper storage of both raw materials as well as waste to ensure that the risk of fire, explosion, or release is minimized.

10.2 EMERGENCY EQUIPMENT AVAILABILITY AND MAINTENANCE

The campus is equipped with the following emergency equipment that is maintained and tested to ensure its availability in case of an emergency:

Internal Communications – Due to the complexities of a college campus, traditional internal communications such as voice paging systems are not practical. However, all buildings (with the exception of Maintenance, Grounds and warehouses) have fire pull stations to alert an evacuation. Additionally, the campus is equipped with telephones.

Immediate Communications – SPC maintains a functional campus phone system that can be used to summons help both internally as well as externally. SPC is equipped with emergency power to operate the phone system. If the phone system fails, the IT Department is notified. Cell phones and radios are also available to security personnel.

Portable fire extinguishers – Portable fire extinguishers are available throughout the campus in appropriate sizes and types. These are visually inspected as a part of the weekly inspections of waste storage areas and as required by a qualified contractor.

Spill Kits – Spill kits are available throughout the campus. These are visually inspected as a part of the weekly inspections of waste storage areas.

Location – Spill kits are maintained in science labs and storerooms, as well as Auto Collision, Automotive Services and Maintenance. Spill kits are located in areas where hazardous waste is generated and stored.

Water to suppress fires – Fire hydrants are available to ensure that water in adequate volume and pressure is available to suppress a fire. These hydrants are maintained by South Plains College. Most of the buildings were constructed prior to the building code requirements for sprinklers; however, sprinkler systems have been installed in the Student Services building and the PE Complex. However, the campus' fire alarm system is monitored 24 hours a day and 7 days a week by campus police.

10.3 AISLE SPACE

Aisle space is maintained to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the campus in an emergency. The pathway to the waste storage area is maintained free of obstruction. In the event of waste being stored in drums, they would be staged side-by-side and not clumped together in groups in order to clearly identify the drum and its condition. As for the more commonly employed smaller containers of hazardous waste, these are stored in a manner to ensure that labels can be identified and containers accessed to determine condition and respond appropriately. Waste containers are not to be stacked more than two (2) high.

10.4 ARRANGEMENTS WITH LOCAL AUTHORITIES

The local authorities (fire department) are aware of South Plains College campus and materials stored on-site due to routine fire code inspections.

SPC is serviced by the Levelland Fire Department and the Levelland Police Department. SPC also maintains its own private security department on campus.

As a SQG of hazardous waste, it is recommended that SPC attempt to make arrangements with local authorities (Levelland Fire Department and the Levelland Police Department) to inform them of the hazards present on-site. As a BMP, a letter as shown in Appendix G should be mailed to these departments. Copies of the certified mail and return receipts should be kept for SPC's files.

The hospital that service the SPC Campus include:

Covenant Hospital Levelland
1900 College Avenue
Levelland, TX 79336-6508
(806) 894-4963

10.5 CONTINGENCY PLAN

10.5.1 EMERGENCY PROCEDURES

Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his/her designee), must immediately:

1. Activate internal alarms or communication systems (i.e. fire pull station) to notify all students and faculty.

2. Notify appropriate State or local agencies with designated response roles, if necessary. This would only be necessary if SPC intended to take an active roll in the emergency response. It is South Plains College's stance that any serious fire or spill will be handled by the professionals and not by SPC employees.

3. Whenever there is a release, fire or explosion, the emergency coordinator will immediately identify the character, exact source, amount, and area extent of any released materials. This may be achieved by visual observation or review of facility records or manifests.

4. Concurrently, possible hazards to human health and the environment must be identified. Potential exposure effects from direct or indirect exposure must be considered (e.g., toxic, irritating, or asphyxiating gases which may be potentially generated, or the effects of run-offs from water or chemicals used to control fire and heat-induced explosions. This information is readily available within a product's MSDS.

If the emergency coordinator determines that the facility has had a release, fire or explosion which could threaten human health or the environment outside the facility, he must report his findings as follows:

1. Immediately notify appropriate local authorities (see Section 10.5.2) and provide information to the applicable authorities to determine whether areas should be evacuated.

2. Immediately notify TCEQ in Austin, Texas or the National Response Center (NRC) whose contact information is provided in Section 10.5.2.

A report to the TCEQ or NRC must be prepared immediately if a release, fire or explosion has occurred, which could threaten human health or the environment outside the facility. This report must include:

- Name and contact information of Emergency Coordinator who responded to the event;
- Name and Address of facility;
- Time and type of incident (e.g., fire, release);
- Name and quantity of material(s) involved, to the extent known;
- Extent of injuries, if any; and
- The possible hazards to human health, or the environment, outside the facility.

During an emergency, the emergency coordinator must take all reasonable measures necessary to assure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste on campus. If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator

must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever appropriate. Immediately after an emergency, the emergency coordinator must provide for treating, storing, and/or disposing of recovered waste, contaminated soils or surface water, or any other material that results from a release, fire, or explosion at the facility.

The emergency coordinator must ensure that no waste that may be incompatible with the released material is treated, stored, or disposed of until all cleanup procedures are complete and all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

A report to TCEQ or NRC must be prepared within 15 days after the incident if any release, fire or explosion has occurred at the facility. This report must include:

- Name and contact information of Emergency Coordinator who responded to the event;
- Name and Address of facility;
- Date, time and type of incident (e.g., fire, release);
- Name and quantity of material(s) involved, to the extent known;
- Extent of injuries, if any; and
- An assessment of actual or potential hazards to human health, or the environment.
- An estimated quantity and disposition of recovered material that resulted from the incident.

10.5.2 EMERGENCY COORDINATORS

At all times, there must be at least one employee either on the campus or on-call with the responsibility of directly coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, and the facility layout. In addition, this person must have the authority to commit the resources necessary to carry out the contingency plan.

In the case of a spill or release the following SPC Staff will serve as the emergency coordinators.

Name	Office Phone	24-Hour Number
Director of Physical Plant (Primary Emergency Coordinator)	(806) 894-9611 Ext. 2420	(806) 893-2922
Maintenance Supervisor (Alternate Emergency Coordinator)	(806) 894-9611 Ext. 2421	(806) 891-2363

The emergency coordination information (see Appendix G) is posted next to the phone at the Facilities Department. The Emergency Coordinator or Campus Security will contact additional resources from the campus as necessary.

Outside resources to contact in case of an emergency include:

Authority	Phone Number
Levelland Campus Police	(806) 716-2396
Levelland Police Department	911 or (806) 894-6164
Levelland Fire Department	911 or (806) 894-3155
Texas Commission on Environmental Quality	(800) 687-4040
National Response Center (NRC)	(800) 424-8802
Covenant Hospital - Levelland	(806) 894-4963
Cleanup Contractor: Safety-Kleen	(806) 622-7764

THIS INFORMATION, ALONG WITH THE LOCATION OF ANY EMERGENCY EQUIPMENT, WILL BE POSTED AT THE PHONE IN THE FACILITIES AREA ON CAMPUS.

10.5.3 EVACUATION PLAN

1. Building Evacuations

   a. All buildings will be evacuated immediately when an alarm sounds and/or upon notification by responsible authorities and in the residence halls by the residence hall director or resident assistant. Follow the building evacuation plan that is posted in each building.

b. When the building evacuation alarm is sounded or evacuation orders are issued, leave the building in a calm, orderly manner via the nearest exit and alert others to do the same.

c. ASSIST THE HANDICAPPED IN EXITING THE BUILDING! Once outside, proceed to a clear area that is at least 500 feet away from the affected building. Keep streets, fire lanes, hydrant areas and walkways clear for emergency vehicles and personnel. Know your assembly points and familiarize yourself with evacuation plans posted in your building.

d. Do not return to an evacuated building unless told to do so by a college official.

e. A Campus Emergency Command Post may be set up near the emergency site. Keep clear of the command post, unless you have official business.

f. Take the roster of individuals who occupy the building and report to the command post that all are accounted for and all is clear.

IMPORTANT: After any evacuation, report to your designated assembly area. Stay there until an accurate head count is taken.

2. Campus Evacuation

a. Evacuation of all or part of the campus will be announced.

b. All persons (students, faculty, staff and visitors) are to immediately vacate the site in question and relocate to another part of the campus or off campus as directed.

11.0 HAZARDOUS WASTE REPORTING

11.1 EXPORT NOTIFICATIONS

SPC does not export hazardous waste.

11.2 EXCEPTION REPORTS

As a SQG, SPC is required to submit exemption reports to TCEQ. An exception report must be completed and filed when the signed copy of a hazardous waste manifest is not returned to SPC by the TSDF within 45 days. The exception report is to be submitted to TCEQ and is to include a legible copy of the manifest which the generator does not have confirmation of delivery and a cover letter signed by the generator explaining the efforts taken to locate the hazardous waste and the results of those efforts. All records associated with exception reports are to be maintained by the generator for at least three (3) years.

11.3 SPECIFIC REPORTS

As a SQG, SPC is required to submit annual waste reports to TCEQ as follows:

Notification and Registration Forms			
Form	**Form Name**	**Description**	**Due Date**
EPA-8700-12	Notification of Regulated Waste Activity (NOR)	To register with the EPA as a hazardous waste generator, Large Quantity Handler of Universal Waste, and receive an EPA ID number.	Once OR within 30 days of revised facility information
TCEQ-00002*	Notification for Hazardous Waste Management (NHWM)	To register with the TCEQ as a hazardous waste generator and receive a TCEQ registration number and NOR detailing specific waste streams and waste management units on file with the TCEQ.	Once OR within 30 days of revised facility information
TCEQ-00002, Part II*	NHIWM: Waste Stream Notification	To notify the TCEQ any time a new waste stream is generated.	Within 30 days of new waste stream
TCEQ-00436*	Annual Waste Summary	To notify the TCEQ of the amount of hazardous waste generated and handled at a facility each year.	January 25 of each year
* STEERS may be used in lieu of these forms			
Each of the above-noted files must be maintained for at least three (3) years at the campus and made available upon request			

12.0 OTHER WASTES

12.1 USED OIL

Used Oil is defined as *any oil that has been refined from crude, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities*. Used oil that is <u>*recycled*</u> is regulated under 40 CFR Part 279. Used oil under this regulation does *not* include antifreeze, kerosene, vegetable oil, animal oil, kitchen grease, and petroleum distillates.

Used oil may be considered hazardous waste and must be managed in accordance with the previous sections of this plan if:

- The used oil has been mixed with a listed hazardous waste;
- The used oil has been mixed with a characteristic hazardous waste and still meets the characteristics of the hazard; and
- Contains greater than 1,000 ppm (0.1%) of total halogens and the presumption of being mixed with a listed hazardous waste cannot be rebutted.

<u>GENERAL REQUIREMENTS FOR USED OIL:</u>

1) Storage: Used oil must be stored in containers or tanks that are in good condition and not leaking.
2) Labeling: Containers and any associated fill pipes must be labeled with the words "USED OIL."
3) Response to release: Upon detection of a release of oil, a facility must:
    a) Stop the release;
    b) Contain the released oil;
    c) Clean up and manage properly released oil and associated cleaning and absorbing materials; and
    d) Repair or replace any leaking oil storage container or tanks prior to returning them to service.

<u>USED OIL GENERATED AT SOUTH PLAINS COLLEGE:</u>

Used oil generated at SPC includes lubricating oil, hydraulic fluid, compressor oil, mineral oil, coolants, cutting oils and metal working fluid resulting from maintenance activities associated with boilers, compressors, and generators as well as vehicles. The additional requirements for facilities that burn used oil in space heaters do not apply since SPC does not burn used oil in on-site oil-fired space heaters. SPC follows all the requirements listed above and consolidates all used oil at the facility's Maintenance Shop. The College contracts the following company to transport and dispose of all used oil generated on campus:

SAFETY-KLEEN
1750 WEST LOOP 335 SOUTH
AMARILLO, TX 79110
(806) 622-7764

12.2 MEDICAL WASTE (BIOHAZARDOUS WASTE)

The TCEQ defines medical waste as being one of the following:

- animal waste from animals intentionally exposed to pathogens;
- bulk human blood and blood products;
- pathological waste;
- microbiological waste; or
- sharps.

Certain categories of medical waste may not be disposed of in sanitary landfills or may be disposed of only after the waste has been treated or packaged in certain ways:

- Sharps must be securely packaged in puncture-proof containers prior to landfilling;
- Cultures and stocks of infectious agents and associated biologicals must not be landfilled unless and until they have been treated (e.g., autoclaved, incinerated) to render them non-infectious;
- Human blood and blood products and other body fluids may not be landfilled. This restriction applies to bulk liquids or wastes containing substantive amounts of free liquids, but does not apply to simply blood - contaminated materials such as emptied blood bags, bandages, or "dirty" linens; and
- Recognizable human organs and body parts may not be landfilled.

GENERAL REQUIREMENTS FOR MEDICAL WASTE:

1) Mixing: Medical waste must not be mixed with other wastes;
2) Storage: Medical wastes must be stored in a manner and location as to minimize exposure to the public; protected from animals, wind and rain; and as to not provide a food source for insects and rodents.
3) Sharps Storage and Labeling: Sharps must be stored in rigid containers identified with either the words "medical waste," "biohazard," or "infectious" and/or the universal symbol for biohazard (☣). These containers are to remain closed except when adding or removing wastes.
4) Medical Waste (other than sharps) Storage and Labeling: Medical waste must be placed in containers which are impervious to moisture and have the strength sufficient to preclude ripping, tearing or bursting under normal conditions. These containers remain closed except when adding or removing waste. Additionally, these containers are to be labeled clearly with either the

words “Medical Waste,” “Bio-hazardous,” or “Infectious” and/or contain the universal symbol for biohazard (☣).

5) Bagged Medical Waste Disposal: Biological wastes and Petri dishes may be autoclaved on-site and then disposed in the general trash.
6) On-Site Medical Waste Treatment:

    a) A generator of medical waste that treats all or part of the wastes on-site in quantities of 50 pounds or less per calendar month shall maintain a written record that, at a minimum, contains the following information:

        - the date of treatment;
        - the method/conditions of treatment;
        - the amount of waste treated;
        - the name (printed) and initials of the person(s) performing treatment; and
        - if applicable, name, address, telephone number, and registration number of the entity providing treatment.

    b) If more than 50 pounds of medical wastes are treated on-site per calendar month, additional requirements apply. In addition to the items above, these facilities must also have a written procedure for the operation and testing of any equipment used, a written procedure for the preparation of any chemicals used in treatment, and performance testing.

7) Off-Site Medical Waste Disposal:

    a) Generators of medical waste that ship their waste off-site for treatment are required to:

        - Properly package and label it as specified in 30 TAC 330.1207(c).
        - List the weight of each medical-waste container (using general use scales) on the generator label as specified in 30 TAC 330.1207(c)(5)—prior to transportation off-site—in order to allow for its complete tracking.
        - Place bags containing medical waste in a rigid container that is leak resistant, impervious to moisture, strong enough to prevent tearing and bursting under normal use and handling, and sealed to prevent leakage or as otherwise required by the U.S. Department of Transportation under 49 CFR 173.134. Cardboard boxes that are designed for medical waste and conform to 49 CFR 173.134 is acceptable to use for medical waste.

- Obtain a signed shipping receipt from a registered transporter, maintain records of all shipments of untreated medical waste sent off-site for three years, and make the records available for inspection by the TCEQ.
- Obtain a receipt from the medical-waste treatment facility certifying that the waste has been properly treated and must also maintain these records.

MEDICAL WASTES GENERATED AT SOUTH PLAINS COLLEGE:

SPC generates medical waste (sharps, bagged medical waste) from various laboratories located in the Science Building, the Fine Arts Building, the Technical Arts Center and the Texan Dome. Medical waste storage, labeling, treatment and disposal practices at SPC are conducted in accordance with regulatory requirements listed above.

Most medical laboratory waste is periodically treated by sterilization in an autoclave. Written records are kept in the area of treatment and historical records are located in the EHS Officer's office. Stericycle, Inc. removes all other medical waste from the various generation points at SPC and transports it for treatment and disposal to their facility in Alabama.

STERICYCLE
8 PHILLIPS DRIVE
MIDFIELD, AL 35228-2233
(205) 923-1131

The medical waste is removed from the campus once a year in shipments consisting of approximately 20 lbs of biohazardous material. Medical waste manifests are maintained for record retention by the nurses station.

12.3 ASBESTOS CONTAINING MATERIAL (SEE SECTION 12.6)

12.4 POLYCHLORINATED BIPHENYL (PCB) WASTE

According to 40 CFR 761, all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB items are subject to requirements for disposal and labeling of PCB containing equipment. The most common PBC containing equipment found on campuses include but are not limited to dielectric fluids located within transformers and in the capacitor of florescent lamp ballasts.

GENERAL REQUIREMENTS FOR PCB WASTES:

A facility that owns PCB containing equipment must comply with the following requirements:

1) Storage Labeling: Each storage area used to store PCBs and PCB Items for disposal shall be marked as illustrated in Figure 1 in 40 CFR 761.45(a).
2) Dated Records: PCB Items shall be dated on the item when they are removed from service for disposal. The storage shall be managed so that the PCB Items can be located by this date.
3) Disposal: Any PCB waste shall be disposed of within 1-year from the date it was determined to be PCB waste and the decision was made to dispose of it.
4) Inspection: All PCB Items in storage shall be checked for leaks at least once every 30 days. Any leaking PCB Items and their contents shall be transferred immediately to properly marked, non-leaking containers. Any spilled or leaked materials shall be immediately cleaned up and the materials and residues containing PCBs shall be disposed of in accordance with 40 CFR 761.61.
5) Documentation: Records of inspections, maintenance, cleanup and disposal must be maintained in accordance with 40 CFR 761.180(a) and (b)

PCB WASTES GENERATED AT SOUTH PLAINS COLLEGE:

SPC does not own the transformers located on-site; however, the University does have florescent light ballasts throughout the facility. These ballasts on-site are evaluated for the potential PCB content based on the guidance given in 40 CFR 761.2. If the ballast is marked "non-PCB" it maybe either recycled or disposed in the general trash. If the ballast is not marked "non-PCB it is assumed to be PCB containing. Once the PCB content has been determined, SPC follows the proper labeling and storage requirements listed above. All generated PCB waste on the SPC campus is shipped off-site to a regulated facility. Waste manifests are provided for record retention by the EHS officer within Appendix M of this WMP, with copies maintained by the generating department.

12.5 E-WASTE

E-waste is a general category for electronic products facing displacement or replacement that are hazardous due to the toxic metals present within their internal materials, coatings and glass. E-waste may include personal computers, monitors, televisions, keyboards printers, telephones, typewriters, calculators, copiers, fax machines and audio equipment. There are commodities worth capturing in E-waste plus there are traditionally toxic materials in electronics that should be kept out of the environment and properly managed.

GENERAL REQUIREMENTS FOR E-WASTES:

A waste stream determination should be completed for e-waste to determine if it should be considered a regulated hazardous waste. Based on the outcome of the waste stream determination, the waste must be handled and disposed as deemed appropriate. Generators of e-waste also have the option of utilizing reclaim and recycling vendors to manage their e-waste.

E-WASTES GENERATED AT SOUTH PLAINS COLLEGE:

E-waste generated at SPC include but are not limited to personal computers, monitors, televisions, keyboards printers, telephones, and other office equipment. The following list provides e-waste recycling contactors that recycle the e-waste in the Levelland area.

State of Texas
Department of Criminal Justice
209 West 14th Street
Austin, TX 78701
(512) 463-9988

Staples
6205 Slide Road
Lubbock, TX 79414
(806) 785-7066

Detailed documentation is maintained regarding each recycled shipment of e-waste. These documents indicate the quantity of material removed for recycling, the items being recycled, who is doing the recycling, and the date the material was recycled.

12.6 SPECIAL WASTE

Special waste is any solid waste that requires special handling and disposal because of its quantity, concentration, physical or chemical characteristics, or biological properties. These include:

- Municipal hazardous waste from conditionally exempt small-quantity generators may be accepted at a Type I or Type IAE landfill provided the amount of waste does not exceed 220 lb (100 kg) per month per generator.
- Municipal wastewater treatment plant sludges, other types of domestic sewage treatment plant sludges, and water-supply treatment plant sludges.
- Liquid wastes from municipal sources that are treated or processed to eliminate free liquids and tested in accordance with 30 TAC 330.171(c)(7).
- Grease-trap and grit-trap wastes.
- Slaughterhouse wastes.
- Dead animals.
- Empty pesticide (insecticide, herbicide, fungicide, or rodenticide) containers that have been triple rinsed and rendered unusable.
- Certain discarded materials containing asbestos as detailed in 30 TAC 330.171(c)(3) and (4). Regulated asbestos-containing material may be accepted for disposal at a Type I or Type IAE landfill. Nonregulated asbestos-

containing materials (non-RACM) may be accepted for disposal at a Type I, Type IAE, Type IV, or Type IVAE landfill.

SPECIAL WASTES GENERATED AT SOUTH PLAINS COLLEGE:

Special wastes that could be generated at SPC include but are not limited to periodic animal carcasses from laboratory dissections, grease trap wastes, and potential ACM. None of these wastes require prior authorization for disposal as long as the MSW landfill or recycling facility is authorized to accept the specific wastes. Special wastes should be managed and transported to contain odor and then covered immediately at an MSW landfill.

ADDITIONAL ASBESTOS INFORMATION:

SPC personnel are not licensed or accredited to conduct an asbestos survey, nor are SPC personnel licensed or certified to remove asbestos containing materials (ACM). As required under the National Emission Standards for Hazardous Air Pollution (NESHAP) Standards, in the event demolition or renovation activities are conducted at the SPC campus, SPC is required to conduct an asbestos survey prior to these activities to identify any ACM is present in the work area.

In the event ACM is identified in a proposed work area by a licensed or accredited Asbestos Inspector, SPC must comply with all appropriate removal and notification requirements. SPC should request copies of all contractors licenses as well as a copy of the final report to include a waste manifest documenting the proper disposal of the ACM to an approved disposal facility. Pertinent copies should be permanently retained within the campus Environmental Files. Under no circumstances should SPC store waste materials associated with the abatement or removal of ACM.

APPENDIX A

Figure 1: Waste Stream Determination and Analysis Flow Chart
F-List
P-List
U-List

HAZARDOUS WASTE DETERMINATION FORM

Hazardous Waste Determination Form #:

A. WASTE DESCRIPTION:

Generation Process:

Generation Location:	**Total Quantity and/or Estimated Generation Rate:**

B. WASTE PROPERTIES, CHARACTERISTICS, and CONSTITUENTS:

Physical State:
- ☐ Solid
- ☐ Solid w/freestanding or absorbed liquid
- ☐ Liquid (If liquid, indicate if the liquid is:
  - ☐ Single-Layer
  - ☐ Multi-Layer
- ☐ Gas

pH:
- ☐ ≤ 2
- ☐ > 2 but < 12.5
- ☐ N/A
- ☐ ≥ 12.5

Flashpoint:
- ☐ < 140 °F
- ☐ > 140°F but < 200 °F
- ☐ N/A
- ☐ > 200 °F

Characteristics:
- ☐ Corrosive
- ☐ Ignitable
- ☐ Reactive
- ☐ Radioactive
- ☐ Toxic
- ☐ None

PCB Content:
- ☐ > 5 ppm
- ☐ < 5 ppm
- ☐ None

Listed:
- ☐ P or U-list (DCC only**)
- ☐ K-list
- ☐ F-list ☐ N/A

**DCC – discarded commercial chemical products

Metal Content:
- ☐ Antimony*
- ☐ Arsenic
- ☐ Barium
- ☐ Beryllium*
- ☐ Cadmium
- ☐ Chromium
- ☐ Cobalt*
- ☐ Copper*
- ☐ Lead
- ☐ Mercury
- ☐ Molybdenum*
- ☐ Nickel*
- ☐ Selenium
- ☐ Silver
- ☐ Thallium*
- ☐ Vanadium*
- ☐ Zinc*
- ☐ None

☐ *Check these metals (or metal compounds) only if they are in a friable, powdered, or finely divided state.

Composition (list all hazardous constituents):

Constituent:	Volume % (range):	Constituent:	Volume % (range):

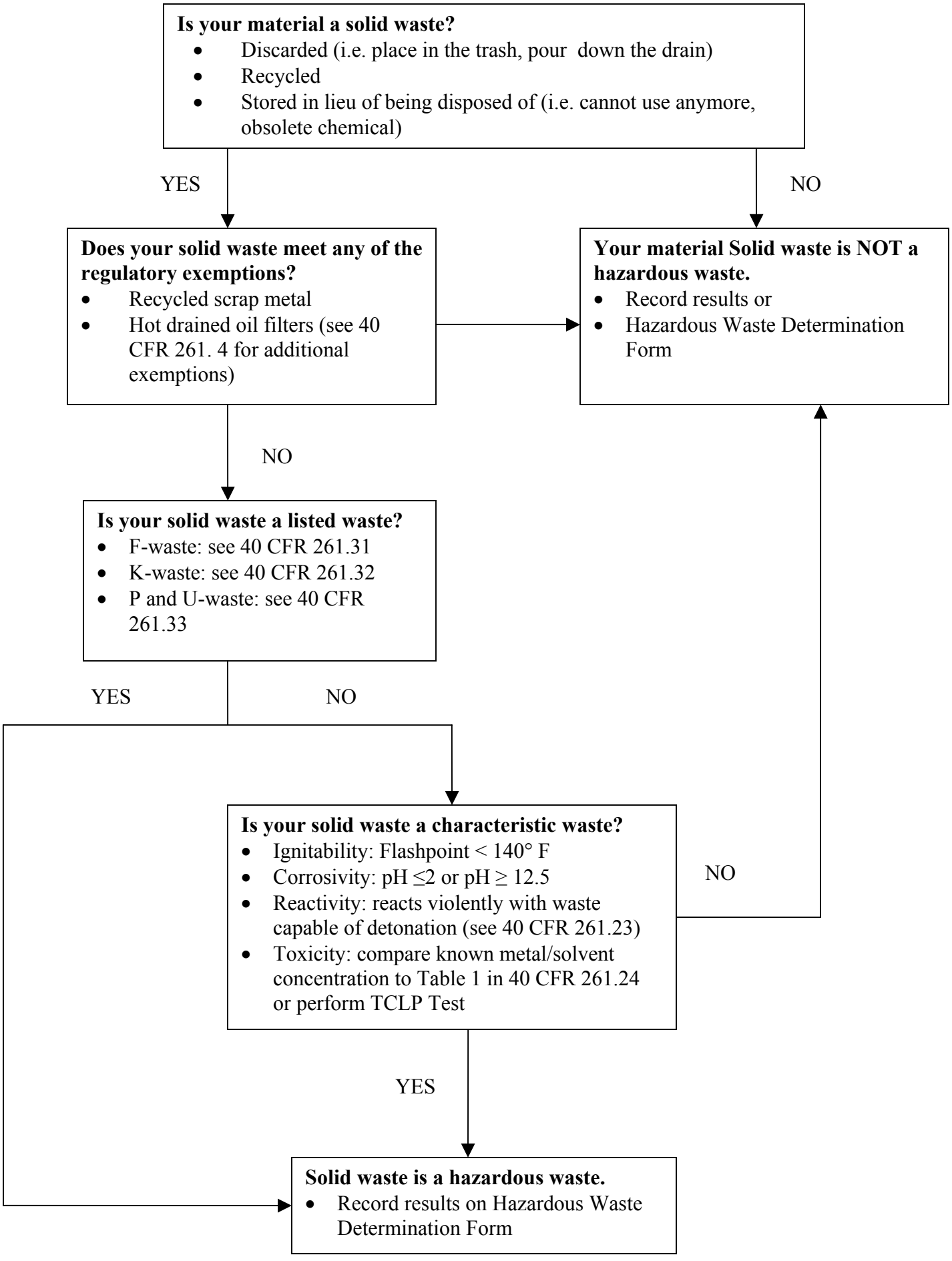
C. REMARKS (Attach all applicable documentation describing the waste (e.g. process knowledge statement, MSDS, sample analysis, etc.):

D. FINAL DETERMINATION:

☐ Hazardous ☐ Non-hazardous ☐ Medical Waste ☐ Universal Waste ☐ Used Oil ☐ Prohibited by POTW

COMPLETED BY:	DEPARTMENT:	CONTACT No.:	DATE:

HAZARDOUS WASTE DETERMINATION FLOW CHART



§ 261.31 Hazardous wastes from non-specific sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under §§260.20 and 260.22 and listed in appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)*
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	(R, T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations	(R, T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in §258.40, §264.301 or §265.301. For the purposes of this listing, motor vehicle manufacturing is defined in paragraph (b)(4)(i) of this section and (b)(4)(ii) of this section describes the recordkeeping requirements for motor vehicle manufacturing facilities	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in §261.31 or §261.32.)	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene sythesized from prepurified 2,4,5-trichlorophenol as the sole component.)	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	(T)

Industry and EPA hazardous waste No.	Hazardous waste	Hazard code
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with §261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F037	Petroleum refinery primary oil/water/solids separation sludge—Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under §261.4(a)(12)(i), if those residuals are to be disposed of.	(T)
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge—Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in §261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing	(T)
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)	(T)

§ 261.33 Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof.

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this section, are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in §261.5(e).

[*Comment:* For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107–20–0	Acetaldehyde, chloro-
P002	591–08–2	Acetamide, N-(aminothioxomethyl)-
P057	640–19–7	Acetamide, 2-fluoro-
P058	62–74–8	Acetic acid, fluoro-, sodium salt
P002	591–08–2	1-Acetyl-2-thiourea
P003	107–02–8	Acrolein
P070	116–06–3	Aldicarb
P203	1646–88–4	Aldicarb sulfone.
P004	309–00–2	Aldrin
P005	107–18–6	Allyl alcohol
P006	20859–73–8	Aluminum phosphide (R,T)
P007	2763–96–4	5-(Aminomethyl)-3-isoxazolol
P008	504–24–5	4-Aminopyridine
P009	131–74–8	Ammonium picrate (R)
P119	7803–55–6	Ammonium vanadate
P099	506–61–6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778–39–4	Arsenic acid H_3AsO_4
P012	1327–53–3	Arsenic oxide As_2O_3
P011	1303–28–2	Arsenic oxide As_2O_5
P011	1303–28–2	Arsenic pentoxide
P012	1327–53–3	Arsenic trioxide
P038	692–42–2	Arsine, diethyl-
P036	696–28–6	Arsonous dichloride, phenyl-
P054	151–56–4	Aziridine
P067	75–55–8	Aziridine, 2-methyl-
P013	542–62–1	Barium cyanide
P024	106–47–8	Benzenamine, 4-chloro-

Hazardous waste No.	Chemical abstracts No.	Substance
P077	100–01–6	Benzenamine, 4-nitro-
P028	100–44–7	Benzene, (chloromethyl)-
P042	51–43–4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122–09–8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108–98–5	Benzenethiol
P127	1563–66–2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P188	57–64–7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester (1:1).
P001	[1]81–81–2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100–44–7	Benzyl chloride
P015	7440–41–7	Beryllium powder
P017	598–31–2	Bromoacetone
P018	357–57–3	Brucine
P045	39196–18–4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl] oxime
P021	592–01–8	Calcium cyanide
P021	592–01–8	Calcium cyanide $Ca(CN)_2$
P189	55285–14–8	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
P191	644–64–4	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]- 5-methyl-1H- pyrazol-3-yl ester.
P192	119–38–0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H- pyrazol-5-yl ester.
P190	1129–41–5	Carbamic acid, methyl-, 3-methylphenyl ester.
P127	1563–66–2	Carbofuran.
P022	75–15–0	Carbon disulfide
P095	75–44–5	Carbonic dichloride
P189	55285–14–8	Carbosulfan.
P023	107–20–0	Chloroacetaldehyde
P024	106–47–8	p-Chloroaniline
P026	5344–82–1	1-(o-Chlorophenyl)thiourea
P027	542–76–7	3-Chloropropionitrile
P029	544–92–3	Copper cyanide
P029	544–92–3	Copper cyanide Cu(CN)
P202	64–00–6	m-Cumenyl methylcarbamate.
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460–19–5	Cyanogen
P033	506–77–4	Cyanogen chloride

Hazardous waste No.	Chemical abstracts No.	Substance
P033	506–77–4	Cyanogen chloride (CN)Cl
P034	131–89–5	2-Cyclohexyl-4,6-dinitrophenol
P016	542–88–1	Dichloromethyl ether
P036	696–28–6	Dichlorophenylarsine
P037	60–57–1	Dieldrin
P038	692–42–2	Diethylarsine
P041	311–45–5	Diethyl-p-nitrophenyl phosphate
P040	297–97–2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55–91–4	Diisopropylfluorophosphate (DFP)
P004	309–00–2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-
P060	465–73–6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta,5beta,8beta,8abeta)-
P037	60–57–1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta, 7aalpha)-
P051	[1]72–20–8	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta, 7aalpha)-, & metabolites
P044	60–51–5	Dimethoate
P046	122–09–8	alpha,alpha-Dimethylphenethylamine
P191	644–64–4	Dimetilan.
P047	[1]534–52–1	4,6-Dinitro-o-cresol, & salts
P048	51–28–5	2,4-Dinitrophenol
P020	88–85–7	Dinoseb
P085	152–16–9	Diphosphoramide, octamethyl-
P111	107–49–3	Diphosphoric acid, tetraethyl ester
P039	298–04–4	Disulfoton
P049	541–53–7	Dithiobiuret
P185	26419–73–8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- [(methylamino)- carbonyl]oxime.
P050	115–29–7	Endosulfan
P088	145–73–3	Endothall
P051	72–20–8	Endrin
P051	72–20–8	Endrin, & metabolites
P042	51–43–4	Epinephrine
P031	460–19–5	Ethanedinitrile
P194	23135–22–0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester.

Hazardous waste No.	Chemical abstracts No.	Substance
P066	16752–77–5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107–12–0	Ethyl cyanide
P054	151–56–4	Ethyleneimine
P097	52–85–7	Famphur
P056	7782–41–4	Fluorine
P057	640–19–7	Fluoroacetamide
P058	62–74–8	Fluoroacetic acid, sodium salt
P198	23422–53–9	Formetanate hydrochloride.
P197	17702–57–7	Formparanate.
P065	628–86–4	Fulminic acid, mercury(2+) salt (R,T)
P059	76–44–8	Heptachlor
P062	757–58–4	Hexaethyl tetraphosphate
P116	79–19–6	Hydrazinecarbothioamide
P068	60–34–4	Hydrazine, methyl-
P063	74–90–8	Hydrocyanic acid
P063	74–90–8	Hydrogen cyanide
P096	7803–51–2	Hydrogen phosphide
P060	465–73–6	Isodrin
P192	119–38–0	Isolan.
P202	64–00–6	3-Isopropylphenyl N-methylcarbamate.
P007	2763–96–4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339–36–3	Manganese, bis(dimethylcarbamodithioato-S,S′)-,
P196	15339–36–3	Manganese dimethyldithiocarbamate.
P092	62–38–4	Mercury, (acetato-O)phenyl-
P065	628–86–4	Mercury fulminate (R,T)
P082	62–75–9	Methanamine, N-methyl-N-nitroso-
P064	624–83–9	Methane, isocyanato-
P016	542–88–1	Methane, oxybis[chloro-
P112	509–14–8	Methane, tetranitro- (R)
P118	75–70–7	Methanethiol, trichloro-
P198	23422–53–9	Methanimidamide, N,N-dimethyl-N′-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride.
P197	17702–57–7	Methanimidamide, N,N-dimethyl-N′-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-
P050	115–29–7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide

Hazardous waste No.	Chemical abstracts No.	Substance
P059	76–44–8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P199	2032–65–7	Methiocarb.
P066	16752–77–5	Methomyl
P068	60–34–4	Methyl hydrazine
P064	624–83–9	Methyl isocyanate
P069	75–86–5	2-Methyllactonitrile
P071	298–00–0	Methyl parathion
P190	1129–41–5	Metolcarb.
P128	315–8–4	Mexacarbate.
P072	86–88–4	alpha-Naphthylthiourea
P073	13463–39–3	Nickel carbonyl
P073	13463–39–3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557–19–7	Nickel cyanide
P074	557–19–7	Nickel cyanide $Ni(CN)_2$
P075	[1]54–11–5	Nicotine, & salts
P076	10102–43–9	Nitric oxide
P077	100–01–6	p-Nitroaniline
P078	10102–44–0	Nitrogen dioxide
P076	10102–43–9	Nitrogen oxide NO
P078	10102–44–0	Nitrogen oxide NO_2
P081	55–63–0	Nitroglycerine (R)
P082	62–75–9	N-Nitrosodimethylamine
P084	4549–40–0	N-Nitrosomethylvinylamine
P085	152–16–9	Octamethylpyrophosphoramide
P087	20816–12–0	Osmium oxide OsO_4, (T-4)-
P087	20816–12–0	Osmium tetroxide
P088	145–73–3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P194	23135–22–0	Oxamyl.
P089	56–38–2	Parathion
P034	131–89–5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51–28–5	Phenol, 2,4-dinitro-
P047	[1]534–52–1	Phenol, 2-methyl-4,6-dinitro-, & salts
P020	88–85–7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131–74–8	Phenol, 2,4,6-trinitro-, ammonium salt (R)

Hazardous waste No.	Chemical abstracts No.	Substance
P128	315–18–4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P199	2032–65–7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64–00–6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	2631–37–0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P092	62–38–4	Phenylmercury acetate
P093	103–85–5	Phenylthiourea
P094	298–02–2	Phorate
P095	75–44–5	Phosgene
P096	7803–51–2	Phosphine
P041	311–45–5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298–04–4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298–02–2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
P044	60–51–5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester
P043	55–91–4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56–38–2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297–97–2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52–85–7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester
P071	298–00–0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57–47–6	Physostigmine.
P188	57–64–7	Physostigmine salicylate.
P110	78–00–2	Plumbane, tetraethyl-
P098	151–50–8	Potassium cyanide
P098	151–50–8	Potassium cyanide K(CN)
P099	506–61–6	Potassium silver cyanide
P201	2631–37–0	Promecarb
P070	116–06–3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime
P203	1646–88–4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime.
P101	107–12–0	Propanenitrile
P027	542–76–7	Propanenitrile, 3-chloro-
P069	75–86–5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55–63–0	1,2,3-Propanetriol, trinitrate (R)
P017	598–31–2	2-Propanone, 1-bromo-

Hazardous waste No.	Chemical abstracts No.	Substance
P102	107–19–7	Propargyl alcohol
P003	107–02–8	2-Propenal
P005	107–18–6	2-Propen-1-ol
P067	75–55–8	1,2-Propylenimine
P102	107–19–7	2-Propyn-1-ol
P008	504–24–5	4-Pyridinamine
P075	[1]54–11–5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P204	57–47–6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039–52–0	Selenious acid, dithallium(1+) salt
P103	630–10–4	Selenourea
P104	506–64–9	Silver cyanide
P104	506–64–9	Silver cyanide Ag(CN)
P105	26628–22–8	Sodium azide
P106	143–33–9	Sodium cyanide
P106	143–33–9	Sodium cyanide Na(CN)
P108	[1]57–24–9	Strychnidin-10-one, & salts
P018	357–57–3	Strychnidin-10-one, 2,3-dimethoxy-
P108	[1]57–24–9	Strychnine, & salts
P115	7446–18–6	Sulfuric acid, dithallium(1+) salt
P109	3689–24–5	Tetraethyldithiopyrophosphate
P110	78–00–2	Tetraethyl lead
P111	107–49–3	Tetraethyl pyrophosphate
P112	509–14–8	Tetranitromethane (R)
P062	757–58–4	Tetraphosphoric acid, hexaethyl ester
P113	1314–32–5	Thallic oxide
P113	1314–32–5	Thallium oxide Tl_2O_3
P114	12039–52–0	Thallium(I) selenite
P115	7446–18–6	Thallium(I) sulfate
P109	3689–24–5	Thiodiphosphoric acid, tetraethyl ester
P045	39196–18–4	Thiofanox
P049	541–53–7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2NH$
P014	108–98–5	Thiophenol
P116	79–19–6	Thiosemicarbazide
P026	5344–82–1	Thiourea, (2-chlorophenyl)-

Hazardous waste No.	Chemical abstracts No.	Substance
P072	86–88–4	Thiourea, 1-naphthalenyl-
P093	103–85–5	Thiourea, phenyl-
P185	26419–73–8	Tirpate.
P123	8001–35–2	Toxaphene
P118	75–70–7	Trichloromethanethiol
P119	7803–55–6	Vanadic acid, ammonium salt
P120	1314–62–1	Vanadium oxide V_2O_5
P120	1314–62–1	Vanadium pentoxide
P084	4549–40–0	Vinylamine, N-methyl-N-nitroso-
P001	[1]81–81–2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137–30–4	Zinc, bis(dimethylcarbamodithioato-S,S′)-,
P121	557–21–1	Zinc cyanide
P121	557–21–1	Zinc cyanide $Zn(CN)_2$
P122	1314–84–7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)
P205	137–30–4	Ziram.

[1]CAS Number given for parent compound only.

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in paragraphs (a) through (d) of this section, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in §261.5 (a) and (g).

[*Comment:* For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number.]

These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
U394	30558–43–1	A2213.
U001	75–07–0	Acetaldehyde (I)
U034	75–87–6	Acetaldehyde, trichloro-
U187	62–44–2	Acetamide, N-(4-ethoxyphenyl)-
U005	53–96–3	Acetamide, N-9H-fluoren-2-yl-
U240	[1]94–75–7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141–78–6	Acetic acid ethyl ester (I)
U144	301–04–2	Acetic acid, lead(2+) salt
U214	563–68–8	Acetic acid, thallium(1+) salt
see F027	93–76–5	Acetic acid, (2,4,5-trichlorophenoxy)-

Hazardous waste No.	Chemical abstracts No.	Substance
U002	67–64–1	Acetone (I)
U003	75–05–8	Acetonitrile (I,T)
U004	98–86–2	Acetophenone
U005	53–96–3	2-Acetylaminofluorene
U006	75–36–5	Acetyl chloride (C,R,T)
U007	79–06–1	Acrylamide
U008	79–10–7	Acrylic acid (I)
U009	107–13–1	Acrylonitrile
U011	61–82–5	Amitrole
U012	62–53–3	Aniline (I,T)
U136	75–60–5	Arsinic acid, dimethyl-
U014	492–80–8	Auramine
U015	115–02–6	Azaserine
U010	50–07–7	Azirino[2′,3′:3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U280	101–27–9	Barban.
U278	22781–23–3	Bendiocarb.
U364	22961–82–6	Bendiocarb phenol.
U271	17804–35–2	Benomyl.
U157	56–49–5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225–51–4	Benz[c]acridine
U017	98–87–3	Benzal chloride
U192	23950–58–5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56–55–3	Benz[a]anthracene
U094	57–97–6	Benz[a]anthracene, 7,12-dimethyl-
U012	62–53–3	Benzenamine (I,T)
U014	492–80–8	Benzenamine, 4,4′-carbonimidoylbis[N,N-dimethyl-
U049	3165–93–3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60–11–7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95–53–4	Benzenamine, 2-methyl-
U353	106–49–0	Benzenamine, 4-methyl-
U158	101–14–4	Benzenamine, 4,4′-methylenebis[2-chloro-
U222	636–21–5	Benzenamine, 2-methyl-, hydrochloride

Hazardous waste No.	Chemical abstracts No.	Substance
U181	99–55–8	Benzenamine, 2-methyl-5-nitro-
U019	71–43–2	Benzene (I,T)
U038	510–15–6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101–55–3	Benzene, 1-bromo-4-phenoxy-
U035	305–03–3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108–90–7	Benzene, chloro-
U221	25376–45–8	Benzenediamine, ar-methyl-
U028	117–81–7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84–74–2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84–66–2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131–11–3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117–84–0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95–50–1	Benzene, 1,2-dichloro-
U071	541–73–1	Benzene, 1,3-dichloro-
U072	106–46–7	Benzene, 1,4-dichloro-
U060	72–54–8	Benzene, 1,1′-(2,2-dichloroethylidene)bis[4-chloro-
U017	98–87–3	Benzene, (dichloromethyl)-
U223	26471–62–5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330–20–7	Benzene, dimethyl- (I,T)
U201	108–46–3	1,3-Benzenediol
U127	118–74–1	Benzene, hexachloro-
U056	110–82–7	Benzene, hexahydro- (I)
U220	108–88–3	Benzene, methyl-
U105	121–14–2	Benzene, 1-methyl-2,4-dinitro-
U106	606–20–2	Benzene, 2-methyl-1,3-dinitro-
U055	98–82–8	Benzene, (1-methylethyl)- (I)
U169	98–95–3	Benzene, nitro-
U183	608–93–5	Benzene, pentachloro-
U185	82–68–8	Benzene, pentachloronitro-
U020	98–09–9	Benzenesulfonic acid chloride (C,R)
U020	98–09–9	Benzenesulfonyl chloride (C,R)
U207	95–94–3	Benzene, 1,2,4,5-tetrachloro-
U061	50–29–3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4-chloro-

Hazardous waste No.	Chemical abstracts No.	Substance
U247	72–43–5	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis[4- methoxy-
U023	98–07–7	Benzene, (trichloromethyl)-
U234	99–35–4	Benzene, 1,3,5-trinitro-
U021	92–87–5	Benzidine
U202	[1]81–07–2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts
U278	22781–23–3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961–82–6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94–59–7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120–58–1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563–38–8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94–58–6	1,3-Benzodioxole, 5-propyl-
U064	189–55–9	Benzo[rst]pentaphene
U248	[1]81–81–2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50–32–8	Benzo[a]pyrene
U197	106–51–4	p-Benzoquinone
U023	98–07–7	Benzotrichloride (C,R,T)
U085	1464–53–5	2,2′-Bioxirane
U021	92–87–5	[1,1′-Biphenyl]-4,4′-diamine
U073	91–94–1	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dichloro-
U091	119–90–4	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethoxy-
U095	119–93–7	[1,1′-Biphenyl]-4,4′-diamine, 3,3′-dimethyl-
U225	75–25–2	Bromoform
U030	101–55–3	4-Bromophenyl phenyl ether
U128	87–68–3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924–16–3	1-Butanamine, N-butyl-N-nitroso-
U031	71–36–3	1-Butanol (I)
U159	78–93–3	2-Butanone (I,T)
U160	1338–23–4	2-Butanone, peroxide (R,T)
U053	4170–30–3	2-Butenal
U074	764–41–0	2-Butene, 1,4-dichloro- (I,T)

Hazardous waste No.	Chemical abstracts No.	Substance
U143	303–34–4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71–36–3	n-Butyl alcohol (I)
U136	75–60–5	Cacodylic acid
U032	13765–19–0	Calcium chromate
U372	10605–21–7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804–35–2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester.
U280	101–27–9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51–79–6	Carbamic acid, ethyl ester
U178	615–53–2	Carbamic acid, methylnitroso-, ethyl ester
U373	122–42–9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564–05–8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester.
U097	79–44–7	Carbamic chloride, dimethyl-
U389	2303–17–5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888–80–9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U114	[1]111–54–6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303–16–4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U279	63–25–2	Carbaryl.
U372	10605–21–7	Carbendazim.
U367	1563–38–8	Carbofuran phenol.
U215	6533–73–9	Carbonic acid, dithallium(1+) salt
U033	353–50–4	Carbonic difluoride
U156	79–22–1	Carbonochloridic acid, methyl ester (I,T)
U033	353–50–4	Carbon oxyfluoride (R,T)
U211	56–23–5	Carbon tetrachloride
U034	75–87–6	Chloral
U035	305–03–3	Chlorambucil
U036	57–74–9	Chlordane, alpha & gamma isomers
U026	494–03–1	Chlornaphazin
U037	108–90–7	Chlorobenzene
U038	510–15–6	Chlorobenzilate

Hazardous waste No.	Chemical abstracts No.	Substance
U039	59–50–7	p-Chloro-m-cresol
U042	110–75–8	2-Chloroethyl vinyl ether
U044	67–66–3	Chloroform
U046	107–30–2	Chloromethyl methyl ether
U047	91–58–7	beta-Chloronaphthalene
U048	95–57–8	o-Chlorophenol
U049	3165–93–3	4-Chloro-o-toluidine, hydrochloride
U032	13765–19–0	Chromic acid H_2CrO_4, calcium salt
U050	218–01–9	Chrysene
U051		Creosote
U052	1319–77–3	Cresol (Cresylic acid)
U053	4170–30–3	Crotonaldehyde
U055	98–82–8	Cumene (I)
U246	506–68–3	Cyanogen bromide (CN)Br
U197	106–51–4	2,5-Cyclohexadiene-1,4-dione
U056	110–82–7	Cyclohexane (I)
U129	58–89–9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108–94–1	Cyclohexanone (I)
U130	77–47–4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50–18–0	Cyclophosphamide
U240	[1]94–75–7	2,4-D, salts & esters
U059	20830–81–3	Daunomycin
U060	72–54–8	DDD
U061	50–29–3	DDT
U062	2303–16–4	Diallate
U063	53–70–3	Dibenz[a,h]anthracene
U064	189–55–9	Dibenzo[a,i]pyrene
U066	96–12–8	1,2-Dibromo-3-chloropropane
U069	84–74–2	Dibutyl phthalate
U070	95–50–1	o-Dichlorobenzene
U071	541–73–1	m-Dichlorobenzene
U072	106–46–7	p-Dichlorobenzene

Hazardous waste No.	Chemical abstracts No.	Substance
U073	91–94–1	3,3′-Dichlorobenzidine
U074	764–41–0	1,4-Dichloro-2-butene (I,T)
U075	75–71–8	Dichlorodifluoromethane
U078	75–35–4	1,1-Dichloroethylene
U079	156–60–5	1,2-Dichloroethylene
U025	111–44–4	Dichloroethyl ether
U027	108–60–1	Dichloroisopropyl ether
U024	111–91–1	Dichloromethoxy ethane
U081	120–83–2	2,4-Dichlorophenol
U082	87–65–0	2,6-Dichlorophenol
U084	542–75–6	1,3-Dichloropropene
U085	1464–53–5	1,2:3,4-Diepoxybutane (I,T)
U108	123–91–1	1,4-Diethyleneoxide
U028	117–81–7	Diethylhexyl phthalate
U395	5952–26–1	Diethylene glycol, dicarbamate.
U086	1615–80–1	N,N′-Diethylhydrazine
U087	3288–58–2	O,O-Diethyl S-methyl dithiophosphate
U088	84–66–2	Diethyl phthalate
U089	56–53–1	Diethylstilbesterol
U090	94–58–6	Dihydrosafrole
U091	119–90–4	3,3′-Dimethoxybenzidine
U092	124–40–3	Dimethylamine (I)
U093	60–11–7	p-Dimethylaminoazobenzene
U094	57–97–6	7,12-Dimethylbenz[a]anthracene
U095	119–93–7	3,3′-Dimethylbenzidine
U096	80–15–9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79–44–7	Dimethylcarbamoyl chloride
U098	57–14–7	1,1-Dimethylhydrazine
U099	540–73–8	1,2-Dimethylhydrazine
U101	105–67–9	2,4-Dimethylphenol
U102	131–11–3	Dimethyl phthalate
U103	77–78–1	Dimethyl sulfate
U105	121–14–2	2,4-Dinitrotoluene

Hazardous waste No.	Chemical abstracts No.	Substance
U106	606–20–2	2,6-Dinitrotoluene
U107	117–84–0	Di-n-octyl phthalate
U108	123–91–1	1,4-Dioxane
U109	122–66–7	1,2-Diphenylhydrazine
U110	142–84–7	Dipropylamine (I)
U111	621–64–7	Di-n-propylnitrosamine
U041	106–89–8	Epichlorohydrin
U001	75–07–0	Ethanal (I)
U404	121–44–8	Ethanamine, N,N-diethyl-
U174	55–18–5	Ethanamine, N-ethyl-N-nitroso-
U155	91–80–5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U067	106–93–4	Ethane, 1,2-dibromo-
U076	75–34–3	Ethane, 1,1-dichloro-
U077	107–06–2	Ethane, 1,2-dichloro-
U131	67–72–1	Ethane, hexachloro-
U024	111–91–1	Ethane, 1,1′-[methylenebis(oxy)]bis[2-chloro-
U117	60–29–7	Ethane, 1,1′-oxybis-(I)
U025	111–44–4	Ethane, 1,1′-oxybis[2-chloro-
U184	76–01–7	Ethane, pentachloro-
U208	630–20–6	Ethane, 1,1,1,2-tetrachloro-
U209	79–34–5	Ethane, 1,1,2,2-tetrachloro-
U218	62–55–5	Ethanethioamide
U226	71–55–6	Ethane, 1,1,1-trichloro-
U227	79–00–5	Ethane, 1,1,2-trichloro-
U410	59669–26–0	Ethanimidothioic acid, N,N′- [thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U394	30558–43–1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110–80–5	Ethanol, 2-ethoxy-
U173	1116–54–7	Ethanol, 2,2′-(nitrosoimino)bis-
U395	5952–26–1	Ethanol, 2,2′-oxybis-, dicarbamate.
U004	98–86–2	Ethanone, 1-phenyl-
U043	75–01–4	Ethene, chloro-
U042	110–75–8	Ethene, (2-chloroethoxy)-
U078	75–35–4	Ethene, 1,1-dichloro-

Hazardous waste No.	Chemical abstracts No.	Substance
U079	156–60–5	Ethene, 1,2-dichloro-, (E)-
U210	127–18–4	Ethene, tetrachloro-
U228	79–01–6	Ethene, trichloro-
U112	141–78–6	Ethyl acetate (I)
U113	140–88–5	Ethyl acrylate (I)
U238	51–79–6	Ethyl carbamate (urethane)
U117	60–29–7	Ethyl ether (I)
U114	[1]111–54–6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106–93–4	Ethylene dibromide
U077	107–06–2	Ethylene dichloride
U359	110–80–5	Ethylene glycol monoethyl ether
U115	75–21–8	Ethylene oxide (I,T)
U116	96–45–7	Ethylenethiourea
U076	75–34–3	Ethylidene dichloride
U118	97–63–2	Ethyl methacrylate
U119	62–50–0	Ethyl methanesulfonate
U120	206–44–0	Fluoranthene
U122	50–00–0	Formaldehyde
U123	64–18–6	Formic acid (C,T)
U124	110–00–9	Furan (I)
U125	98–01–1	2-Furancarboxaldehyde (I)
U147	108–31–6	2,5-Furandione
U213	109–99–9	Furan, tetrahydro-(I)
U125	98–01–1	Furfural (I)
U124	110–00–9	Furfuran (I)
U206	18883–66–4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883–66–4	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-carbonyl]amino]-
U126	765–34–4	Glycidylaldehyde
U163	70–25–7	Guanidine, N-methyl-N′-nitro-N-nitroso-
U127	118–74–1	Hexachlorobenzene
U128	87–68–3	Hexachlorobutadiene
U130	77–47–4	Hexachlorocyclopentadiene

Hazardous waste No.	Chemical abstracts No.	Substance
U131	67–72–1	Hexachloroethane
U132	70–30–4	Hexachlorophene
U243	1888–71–7	Hexachloropropene
U133	302–01–2	Hydrazine (R,T)
U086	1615–80–1	Hydrazine, 1,2-diethyl-
U098	57–14–7	Hydrazine, 1,1-dimethyl-
U099	540–73–8	Hydrazine, 1,2-dimethyl-
U109	122–66–7	Hydrazine, 1,2-diphenyl-
U134	7664–39–3	Hydrofluoric acid (C,T)
U134	7664–39–3	Hydrogen fluoride (C,T)
U135	7783–06–4	Hydrogen sulfide
U135	7783–06–4	Hydrogen sulfide H_2S
U096	80–15–9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96–45–7	2-Imidazolidinethione
U137	193–39–5	Indeno[1,2,3-cd]pyrene
U190	85–44–9	1,3-Isobenzofurandione
U140	78–83–1	Isobutyl alcohol (I,T)
U141	120–58–1	Isosafrole
U142	143–50–0	Kepone
U143	303–34–4	Lasiocarpine
U144	301–04–2	Lead acetate
U146	1335–32–6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446–27–7	Lead phosphate
U146	1335–32–6	Lead subacetate
U129	58–89–9	Lindane
U163	70–25–7	MNNG
U147	108–31–6	Maleic anhydride
U148	123–33–1	Maleic hydrazide
U149	109–77–3	Malononitrile
U150	148–82–3	Melphalan
U151	7439–97–6	Mercury
U152	126–98–7	Methacrylonitrile (I, T)
U092	124–40–3	Methanamine, N-methyl- (I)

Hazardous waste No.	Chemical abstracts No.	Substance
U029	74–83–9	Methane, bromo-
U045	74–87–3	Methane, chloro- (I, T)
U046	107–30–2	Methane, chloromethoxy-
U068	74–95–3	Methane, dibromo-
U080	75–09–2	Methane, dichloro-
U075	75–71–8	Methane, dichlorodifluoro-
U138	74–88–4	Methane, iodo-
U119	62–50–0	Methanesulfonic acid, ethyl ester
U211	56–23–5	Methane, tetrachloro-
U153	74–93–1	Methanethiol (I, T)
U225	75–25–2	Methane, tribromo-
U044	67–66–3	Methane, trichloro-
U121	75–69–4	Methane, trichlorofluoro-
U036	57–74–9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67–56–1	Methanol (I)
U155	91–80–5	Methapyrilene
U142	143–50–0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72–43–5	Methoxychlor
U154	67–56–1	Methyl alcohol (I)
U029	74–83–9	Methyl bromide
U186	504–60–9	1-Methylbutadiene (I)
U045	74–87–3	Methyl chloride (I,T)
U156	79–22–1	Methyl chlorocarbonate (I,T)
U226	71–55–6	Methyl chloroform
U157	56–49–5	3-Methylcholanthrene
U158	101–14–4	4,4′-Methylenebis(2-chloroaniline)
U068	74–95–3	Methylene bromide
U080	75–09–2	Methylene chloride
U159	78–93–3	Methyl ethyl ketone (MEK) (I,T)
U160	1338–23–4	Methyl ethyl ketone peroxide (R,T)
U138	74–88–4	Methyl iodide
U161	108–10–1	Methyl isobutyl ketone (I)
U162	80–62–6	Methyl methacrylate (I,T)

Hazardous waste No.	Chemical abstracts No.	Substance
U161	108–10–1	4-Methyl-2-pentanone (I)
U164	56–04–2	Methylthiouracil
U010	50–07–7	Mitomycin C
U059	20830–81–3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134–32–7	1-Naphthalenamine
U168	91–59–8	2-Naphthalenamine
U026	494–03–1	Naphthalenamine, N,N′-bis(2-chloroethyl)-
U165	91–20–3	Naphthalene
U047	91–58–7	Naphthalene, 2-chloro-
U166	130–15–4	1,4-Naphthalenedione
U236	72–57–1	2,7-Naphthalenedisulfonic acid, 3,3′-[(3,3′-dimethyl[1,1′-biphenyl]-4,4′-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt
U279	63–25–2	1-Naphthalenol, methylcarbamate.
U166	130–15–4	1,4-Naphthoquinone
U167	134–32–7	alpha-Naphthylamine
U168	91–59–8	beta-Naphthylamine
U217	10102–45–1	Nitric acid, thallium(1+) salt
U169	98–95–3	Nitrobenzene (I,T)
U170	100–02–7	p-Nitrophenol
U171	79–46–9	2-Nitropropane (I,T)
U172	924–16–3	N-Nitrosodi-n-butylamine
U173	1116–54–7	N-Nitrosodiethanolamine
U174	55–18–5	N-Nitrosodiethylamine
U176	759–73–9	N-Nitroso-N-ethylurea
U177	684–93–5	N-Nitroso-N-methylurea
U178	615–53–2	N-Nitroso-N-methylurethane
U179	100–75–4	N-Nitrosopiperidine
U180	930–55–2	N-Nitrosopyrrolidine
U181	99–55–8	5-Nitro-o-toluidine
U193	1120–71–4	1,2-Oxathiolane, 2,2-dioxide
U058	50–18–0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75–21–8	Oxirane (I,T)

Hazardous waste No.	Chemical abstracts No.	Substance
U126	765–34–4	Oxiranecarboxyaldehyde
U041	106–89–8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608–93–5	Pentachlorobenzene
U184	76–01–7	Pentachloroethane
U185	82–68–8	Pentachloronitrobenzene (PCNB)
See F027	87–86–5	Pentachlorophenol
U161	108–10–1	Pentanol, 4-methyl-
U186	504–60–9	1,3-Pentadiene (I)
U187	62–44–2	Phenacetin
U188	108–95–2	Phenol
U048	95–57–8	Phenol, 2-chloro-
U039	59–50–7	Phenol, 4-chloro-3-methyl-
U081	120–83–2	Phenol, 2,4-dichloro-
U082	87–65–0	Phenol, 2,6-dichloro-
U089	56–53–1	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105–67–9	Phenol, 2,4-dimethyl-
U052	1319–77–3	Phenol, methyl-
U132	70–30–4	Phenol, 2,2′-methylenebis[3,4,6-trichloro-
U411	114–26–1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100–02–7	Phenol, 4-nitro-
See F027	87–86–5	Phenol, pentachloro-
See F027	58–90–2	Phenol, 2,3,4,6-tetrachloro-
See F027	95–95–4	Phenol, 2,4,5-trichloro-
See F027	88–06–2	Phenol, 2,4,6-trichloro-
U150	148–82–3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446–27–7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288–58–2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314–80–3	Phosphorus sulfide (R)
U190	85–44–9	Phthalic anhydride
U191	109–06–8	2-Picoline
U179	100–75–4	Piperidine, 1-nitroso-
U192	23950–58–5	Pronamide

Hazardous waste No.	Chemical abstracts No.	Substance
U194	107–10–8	1-Propanamine (I,T)
U111	621–64–7	1-Propanamine, N-nitroso-N-propyl-
U110	142–84–7	1-Propanamine, N-propyl- (I)
U066	96–12–8	Propane, 1,2-dibromo-3-chloro-
U083	78–87–5	Propane, 1,2-dichloro-
U149	109–77–3	Propanedinitrile
U171	79–46–9	Propane, 2-nitro- (I,T)
U027	108–60–1	Propane, 2,2′-oxybis[2-chloro-
U193	1120–71–4	1,3-Propane sultone
See F027	93–72–1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126–72–7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78–83–1	1-Propanol, 2-methyl- (I,T)
U002	67–64–1	2-Propanone (I)
U007	79–06–1	2-Propenamide
U084	542–75–6	1-Propene, 1,3-dichloro-
U243	1888–71–7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107–13–1	2-Propenenitrile
U152	126–98–7	2-Propenenitrile, 2-methyl- (I,T)
U008	79–10–7	2-Propenoic acid (I)
U113	140–88–5	2-Propenoic acid, ethyl ester (I)
U118	97–63–2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80–62–6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122–42–9	Propham.
U411	114–26–1	Propoxur.
U387	52888–80–9	Prosulfocarb.
U194	107–10–8	n-Propylamine (I,T)
U083	78–87–5	Propylene dichloride
U148	123–33–1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110–86–1	Pyridine
U191	109–06–8	Pyridine, 2-methyl-
U237	66–75–1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	56–04–2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-

Hazardous waste No.	Chemical abstracts No.	Substance
U180	930–55–2	Pyrrolidine, 1-nitroso-
U200	50–55–5	Reserpine
U201	108–46–3	Resorcinol
U202	[1]81–07–2	Saccharin, & salts
U203	94–59–7	Safrole
U204	7783–00–8	Selenious acid
U204	7783–00–8	Selenium dioxide
U205	7488–56–4	Selenium sulfide
U205	7488–56–4	Selenium sulfide SeS_2(R,T)
U015	115–02–6	L-Serine, diazoacetate (ester)
See F027	93–72–1	Silvex (2,4,5-TP)
U206	18883–66–4	Streptozotocin
U103	77–78–1	Sulfuric acid, dimethyl ester
U189	1314–80–3	Sulfur phosphide (R)
See F027	93–76–5	2,4,5-T
U207	95–94–3	1,2,4,5-Tetrachlorobenzene
U208	630–20–6	1,1,1,2-Tetrachloroethane
U209	79–34–5	1,1,2,2-Tetrachloroethane
U210	127–18–4	Tetrachloroethylene
See F027	58–90–2	2,3,4,6-Tetrachlorophenol
U213	109–99–9	Tetrahydrofuran (I)
U214	563–68–8	Thallium(I) acetate
U215	6533–73–9	Thallium(I) carbonate
U216	7791–12–0	Thallium(I) chloride
U216	7791–12–0	thallium chloride TlCl
U217	10102–45–1	Thallium(I) nitrate
U218	62–55–5	Thioacetamide
U410	59669–26–0	Thiodicarb.
U153	74–93–1	Thiomethanol (I,T)
U244	137–26–8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U409	23564–05–8	Thiophanate-methyl.
U219	62–56–6	Thiourea
U244	137–26–8	Thiram

Hazardous waste No.	Chemical abstracts No.	Substance
U220	108–88–3	Toluene
U221	25376–45–8	Toluenediamine
U223	26471–62–5	Toluene diisocyanate (R,T)
U328	95–53–4	o-Toluidine
U353	106–49–0	p-Toluidine
U222	636–21–5	o-Toluidine hydrochloride
U389	2303–17–5	Triallate.
U011	61–82–5	1H-1,2,4-Triazol-3-amine
U226	71–55–6	1,1,1-Trichloroethane
U227	79–00–5	1,1,2-Trichloroethane
U228	79–01–6	Trichloroethylene
U121	75–69–4	Trichloromonofluoromethane
See F027	95–95–4	2,4,5-Trichlorophenol
See F027	88–06–2	2,4,6-Trichlorophenol
U404	121–44–8	Triethylamine.
U234	99–35–4	1,3,5-Trinitrobenzene (R,T)
U182	123–63–7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126–72–7	Tris(2,3-dibromopropyl) phosphate
U236	72–57–1	Trypan blue
U237	66–75–1	Uracil mustard
U176	759–73–9	Urea, N-ethyl-N-nitroso-
U177	684–93–5	Urea, N-methyl-N-nitroso-
U043	75–01–4	Vinyl chloride
U248	[1]81–81–2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330–20–7	Xylene (I)
U200	50–55–5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314–84–7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

§ 261.24 Toxicity characteristic.

Table 1 —Maximum Concentration of Contaminants for the Toxicity Characteristic

EPA HW No.[1]	Contaminant	CAS No.[2]	Regulatory Level (mg/L)
D004	Arsenic	7440–38–2	5.0
D005	Barium	7440–39–3	100.0
D018	Benzene	71–43–2	0.5
D006	Cadmium	7440–43–9	1.0
D019	Carbon tetrachloride	56–23–5	0.5
D020	Chlordane	57–74–9	0.03
D021	Chlorobenzene	108–90–7	100.0
D022	Chloroform	67–66–3	6.0
D007	Chromium	7440–47–3	5.0
D023	o-Cresol	95–48–7	[4]200.0
D024	m-Cresol	108–39–4	[4]200.0
D025	p-Cresol	106–44–5	[4]200.0
D026	Cresol		[4]200.0
D016	2,4-D	94–75–7	10.0
D027	1,4-Dichlorobenzene	106–46–7	7.5
D028	1,2-Dichloroethane	107–06–2	0.5
D029	1,1-Dichloroethylene	75–35–4	0.7
D030	2,4-Dinitrotoluene	121–14–2	[3]0.13
D012	Endrin	72–20–8	0.02
D031	Heptachlor (and its epoxide)	76–44–8	0.008
D032	Hexachlorobenzene	118–74–1	[3]0.13
D033	Hexachlorobutadiene	87–68–3	0.5
D034	Hexachloroethane	67–72–1	3.0
D008	Lead	7439–92–1	5.0
D013	Lindane	58–89–9	0.4
D009	Mercury	7439–97–6	0.2
D014	Methoxychlor	72–43–5	10.0
D035	Methyl ethyl ketone	78–93–3	200.0
D036	Nitrobenzene	98–95–3	2.0
D037	Pentrachlorophenol	87–86–5	100.0
D038	Pyridine	110–86–1	[3]5.0
D010	Selenium	7782–49–2	1.0
D011	Silver	7440–22–4	5.0
D039	Tetrachloroethylene	127–18–4	0.7
D015	Toxaphene	8001–35–2	0.5
D040	Trichloroethylene	79–01–6	0.5
D041	2,4,5-Trichlorophenol	95–95–4	400.0
D042	2,4,6-Trichlorophenol	88–06–2	2.0
D017	2,4,5-TP (Silvex)	93–72–1	1.0
D043	Vinyl chloride	75–01–4	0.2

[1]Hazardous waste number. [2]Chemical abstracts service number. [3]Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level. [4]If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

APPENDIX B

WASTE STREAM DETERMINATION SHEETS

APPENDIX C

WASTE LABEL EXAMPLES

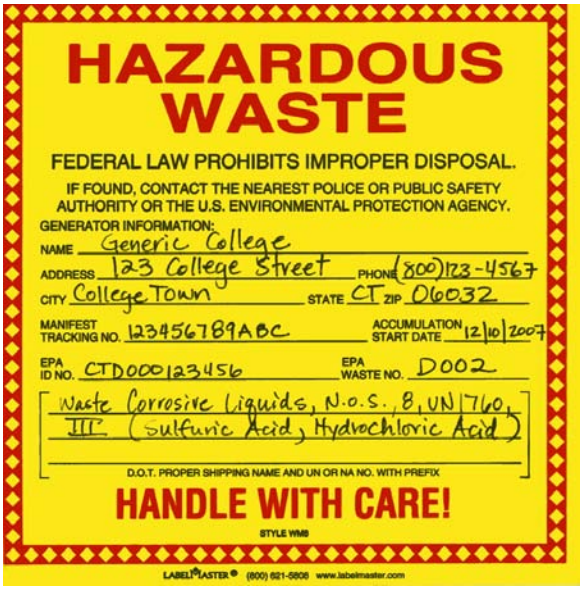
Example of blank and completed Universal Waste Label
Example of blank and completed Non-Hazardous Waste Label
Example of blank and completed Less Than 180-Day Label and Template
Example of other Commonly Used Labels

(All labels are formatted to use with Universal Laser Printer Labels, 80108)
SAA Label Template
Unknown Waste Label Template
Empty Container Label Template
Biohazardous Waste Label Template
Universal Waste Label Template
Less Than 180-Day Label Template
Non-Hazardous Waste Label Template

Example of blank and completed Universal Waste Label

Example of blank and completed Non-Hazardous Waste Label

Example of blank and completed Less Than 180-Day Label and Template

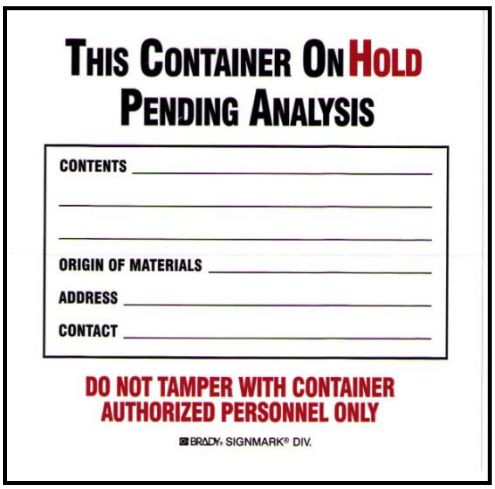


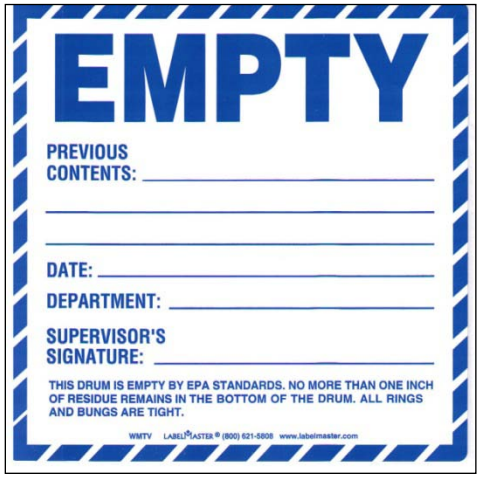
EPA I.D. Number:

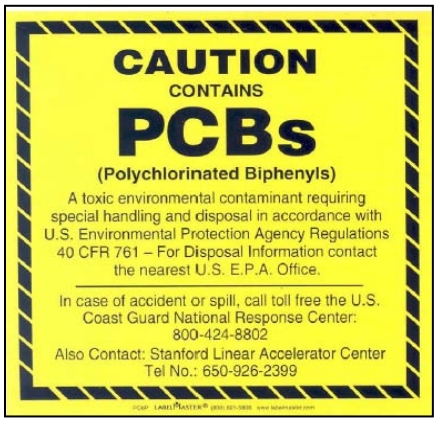
Campus	EPA ID Number
South Plains College	TXD982563058

Manifest Document No.: As listed on the manifest for the shipment, will be alphanumerical number consisting of 9 numbers and 3 letters.
Accumulation Start Date: Date waste was first placed in the container OR date the satellite accumulation container filled to container capacity or 55 gallons (whichever is smallest).
DOT Proper Shipping Name: Refer to the Hazardous Materials Table of the DOT regulations and/or refer to previous manifests
EPA Waste Code: Refer to the completed waste stream determinations

Example of other Commonly Used Labels







Biohazardous Waste Labels

BIOHAZARDOUS WASTE

Waste Description (circle one):

Sharps anatomical remains blood soaked material

Other (describe) ______________________________

Destined for (circle one): Disposal Autoclave

Waste container must be CLOSED when not adding or removing waste!

BIOHAZARDOUS WASTE

Waste Description (circle one):

Sharps anatomical remains blood soaked material

Other (describe) ______________________________

Destined for (circle one): Disposal Autoclave

Waste container must be CLOSED when not adding or removing waste!

BIOHAZARDOUS WASTE

Waste Description (circle one):

Sharps anatomical remains blood soaked material

Other (describe) ______________________________

Destined for (circle one): Disposal Autoclave

Waste container must be CLOSED when not adding or removing waste!

BIOHAZARDOUS WASTE

Waste Description (circle one):

Sharps anatomical remains blood soaked material

Other (describe) ______________________________

Destined for (circle one): Disposal Autoclave

Waste container must be CLOSED when not adding or removing waste!

BIOHAZARDOUS WASTE

Waste Description (circle one):

Sharps anatomical remains blood soaked material

Other (describe) ______________________________

Destined for (circle one): Disposal Autoclave

Waste container must be CLOSED when not adding or removing waste!

BIOHAZARDOUS WASTE

Waste Description (circle one):

Sharps anatomical remains blood soaked material

Other (describe) ______________________________

Destined for (circle one): Disposal Autoclave

Waste container must be CLOSED when not adding or removing waste!

Empty Labels

EMPTY CONTAINER

Previous contents:________________________________

Acute Waste (P-Listed or F020,21,22,23,26 or 27)? (circle one) YES NO

Department/Lab No.:______________________________

Contact Name/Number: ___________________________

Triple Rinsed? (circle one) YES NO

Must be triple rinsed if answered YES to Acute Waste.

Empty defined as: less than 1in residue, no more than 3% by weight of the total container (container ≤ 110 gallons) and no more than 0.3% by weigh of the total container (container > 110 gallons)

EMPTY CONTAINER

Previous contents:________________________________

Acute Waste (P-Listed or F020,21,22,23,26 or 27)? (circle one) YES NO

Department/Lab No.:______________________________

Contact Name/Number: ___________________________

Triple Rinsed? (circle one) YES NO

Must be triple rinsed if answered YES to Acute Waste.

Empty defined as: less than 1in residue, no more than 3% by weight of the total container (container ≤ 110 gallons) and no more than 0.3% by weigh of the total container (container > 110 gallons)

EMPTY CONTAINER

Previous contents:________________________________

Acute Waste (P-Listed or F020,21,22,23,26 or 27)? (circle one) YES NO

Department/Lab No.:______________________________

Contact Name/Number: ___________________________

Triple Rinsed? (circle one) YES NO

Must be triple rinsed if answered YES to Acute Waste.

Empty defined as: less than 1in residue, no more than 3% by weight of the total container (container ≤ 110 gallons) and no more than 0.3% by weigh of the total container (container > 110 gallons)

EMPTY CONTAINER

Previous contents:________________________________

Acute Waste (P-Listed or F020,21,22,23,26 or 27)? (circle one) YES NO

Department/Lab No.:______________________________

Contact Name/Number: ___________________________

Triple Rinsed? (circle one) YES NO

Must be triple rinsed if answered YES to Acute Waste.

Empty defined as: less than 1in residue, no more than 3% by weight of the total container (container ≤ 110 gallons) and no more than 0.3% by weigh of the total container (container > 110 gallons)

EMPTY CONTAINER

Previous contents:________________________________

Acute Waste (P-Listed or F020,21,22,23,26 or 27)? (circle one) YES NO

Department/Lab No.:______________________________

Contact Name/Number: ___________________________

Triple Rinsed? (circle one) YES NO

Must be triple rinsed if answered YES to Acute Waste.

Empty defined as: less than 1in residue, no more than 3% by weight of the total container (container ≤ 110 gallons) and no more than 0.3% by weigh of the total container (container > 110 gallons)

EMPTY CONTAINER

Previous contents:________________________________

Acute Waste (P-Listed or F020,21,22,23,26 or 27)? (circle one) YES NO

Department/Lab No.:______________________________

Contact Name/Number: ___________________________

Triple Rinsed? (circle one) YES NO

Must be triple rinsed if answered YES to Acute Waste.

Empty defined as: less than 1in residue, no more than 3% by weight of the total container (container ≤ 110 gallons) and no more than 0.3% by weigh of the total container (container > 110 gallons)

Central Storage Label

HAZARDOUS WASTE

Waste Description:_____

_____

Process Generating Waste:_____

_____

Contact Name:_____

Lab/Room Number:_____

Date: _____

Note: must be disposed within 180 days of the date listed above

HAZARDOUS WASTE

Waste Description:_____

_____

Process Generating Waste:_____

_____

Contact Name:_____

Lab/Room Number:_____

Date: _____

Note: must be disposed within 180 days of the date listed above

HAZARDOUS WASTE

Waste Description:_____

_____

Process Generating Waste:_____

_____

Contact Name:_____

Lab/Room Number:_____

Date: _____

Note: must be disposed within 180 days of the date listed above

HAZARDOUS WASTE

Waste Description:_____

_____

Process Generating Waste:_____

_____

Contact Name:_____

Lab/Room Number:_____

Date: _____

Note: must be disposed within 180 days of the date listed above

HAZARDOUS WASTE

Waste Description:_____

_____

Process Generating Waste:_____

_____

Contact Name:_____

Lab/Room Number:_____

Date: _____

Note: must be disposed within 180 days of the date listed above

NON-HAZARDOUS WASTE TEMPLATE

NON-HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:_________________
____

Contact Name:___________________________

Lab/Room Number:_______________________

Date: _________________________________

NON-HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:_________________
____

Contact Name:___________________________

Lab/Room Number:_______________________

Date: _________________________________

NON-HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:_________________
____

Contact Name:___________________________

Lab/Room Number:_______________________

Date: _________________________________

NON-HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:_________________
____

Contact Name:___________________________

Lab/Room Number:_______________________

Date: _________________________________

NON-HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:_________________
____

Contact Name:___________________________

Lab/Room Number:_______________________

Date: _________________________________

NON-HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:_________________
____

Contact Name:___________________________

Lab/Room Number:_______________________

Date: _________________________________

Satellite Accumulation Area Labels

HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:__________________
____

Contact Name:_____________________________

Lab/Room Number:________________________

Container must remain CLOSED

Date container becomes full: _______________
(Move to central storage area within three (3) days of date above)

HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:__________________
____

Contact Name:_____________________________

Lab/Room Number:________________________

Container must remain CLOSED

Date container becomes full: _______________
(Move to central storage area within three (3) days of date above)

HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:__________________
____

Contact Name:_____________________________

Lab/Room Number:________________________

Container must remain CLOSED

Date container becomes full: _______________
(Move to central storage area within three (3) days of date above)

HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:__________________
____

Contact Name:_____________________________

Lab/Room Number:________________________

Container must remain CLOSED

Date container becomes full: _______________
(Move to central storage area within three (3) days of date above)

HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:__________________
____

Contact Name:_____________________________

Lab/Room Number:________________________

Container must remain CLOSED

Date container becomes full: _______________
(Move to central storage area within three (3) days of date above)

HAZARDOUS WASTE

Waste Description:________________________
____

Process Generating Waste:__________________
____

Contact Name:_____________________________

Lab/Room Number:________________________

Container must remain CLOSED

Date container becomes full: _______________
(Move to central storage area within three (3) days of date above)

Unknown Waste Labels

UNKNOWN WASTE
Pending Analysis

If Solid: Water Soluable (yes/no)
Reactive with water (yes/no)
pH in Water: ____________________________
Flammability: ___________________________

If Liquid: pH of solution: ___________________________
Reactivity: ______________________________
Miscibility: ______________________________
Flammability: ___________________________

Process Generating Waste: ____________________________

Contact Name:______________________________________
Lab/Room Number:__________________________________

UNKNOWN WASTE
Pending Analysis

If Solid: Water Soluable (yes/no)
Reactive with water (yes/no)
pH in Water: ____________________________
Flammability: ___________________________

If Liquid: pH of solution: ___________________________
Reactivity: ______________________________
Miscibility: ______________________________
Flammability: ___________________________

Process Generating Waste: ____________________________

Contact Name:______________________________________
Lab/Room Number:__________________________________

UNKNOWN WASTE
Pending Analysis

If Solid: Water Soluable (yes/no)
Reactive with water (yes/no)
pH in Water: ____________________________
Flammability: ___________________________

If Liquid: pH of solution: ___________________________
Reactivity: ______________________________
Miscibility: ______________________________
Flammability: ___________________________

Process Generating Waste: ____________________________

Contact Name:______________________________________
Lab/Room Number:__________________________________

UNKNOWN WASTE
Pending Analysis

If Solid: Water Soluable (yes/no)
Reactive with water (yes/no)
pH in Water: ____________________________
Flammability: ___________________________

If Liquid: pH of solution: ___________________________
Reactivity: ______________________________
Miscibility: ______________________________
Flammability: ___________________________

Process Generating Waste: ____________________________

Contact Name:______________________________________
Lab/Room Number:__________________________________

UNKNOWN WASTE
Pending Analysis

If Solid: Water Soluable (yes/no)
Reactive with water (yes/no)
pH in Water: ____________________________
Flammability: ___________________________

If Liquid: pH of solution: ___________________________
Reactivity: ______________________________
Miscibility: ______________________________
Flammability: ___________________________

Process Generating Waste: ____________________________

Contact Name:______________________________________
Lab/Room Number:__________________________________

UNKNOWN WASTE
Pending Analysis

If Solid: Water Soluable (yes/no)
Reactive with water (yes/no)
pH in Water: ____________________________
Flammability: ___________________________

If Liquid: pH of solution: ___________________________
Reactivity: ______________________________
Miscibility: ______________________________
Flammability: ___________________________

Process Generating Waste: ____________________________

Contact Name:______________________________________
Lab/Room Number:__________________________________

Universal Waste Labels

UNIVERSAL WASTE

Circle One: **Used Bulbs** **Used Batteries**

Waste Pesticides

Mercury Containing Equipment

Date Waste first placed in container: ___________

Contact Name:_____________________________

Lab/Room Number:_________________________

Waste container must be CLOSED when not adding or removing waste!

UNIVERSAL WASTE

Circle One: **Used Bulbs** **Used Batteries**

Waste Pesticides

Mercury Containing Equipment

Date Waste first placed in container: ___________

Contact Name:_____________________________

Lab/Room Number:_________________________

Waste container must be CLOSED when not adding or removing waste!

UNIVERSAL WASTE

Circle One: **Used Bulbs** **Used Batteries**

Waste Pesticides

Mercury Containing Equipment

Date Waste first placed in container: ___________

Contact Name:_____________________________

Lab/Room Number:_________________________

Waste container must be CLOSED when not adding or removing waste!

UNIVERSAL WASTE

Circle One: **Used Bulbs** **Used Batteries**

Waste Pesticides

Mercury Containing Equipment

Date Waste first placed in container: ___________

Contact Name:_____________________________

Lab/Room Number:_________________________

Waste container must be CLOSED when not adding or removing waste!

UNIVERSAL WASTE

Circle One: **Used Bulbs** **Used Batteries**

Waste Pesticides

Mercury Containing Equipment

Date Waste first placed in container: ___________

Contact Name:_____________________________

Lab/Room Number:_________________________

Waste container must be CLOSED when not adding or removing waste!

UNIVERSAL WASTE

Circle One: **Used Bulbs** **Used Batteries**

Waste Pesticides

Mercury Containing Equipment

Date Waste first placed in container: ___________

Contact Name:_____________________________

Lab/Room Number:_________________________

Waste container must be CLOSED when not adding or removing waste!

APPENDIX D

INSPECTION AND GENERATION LOGS

SAA Inspections
Central Hazardous Waste Storage Area Weekly Inspections
Hazardous Waste Accumulation Log
Autoclave Log

South Plains College Satellite Accumulation Area (SAA) Inspection Log										
Department:				SAA Waste Description:						
Room/Lab No.:				Owner of Process Generating the waste:						
Date:										
Inspector's Name:										
Are containers Closed?										
Are containers labeled with the words "Hazardous Waste" or other words that identify its contents?										
Is there less than 1 quart of acute waste or less than 55 gallons of all other hazardous wastes?										
If no to above, is the container dated with 3 days and moved to the centralized accumulation area?										
Is the waste at or near the point of generation (i.e. same room or lab?)										
Is the waste under control of the person generating the waste?										

SOUTH PLAINS COLLEGE
CENTRAL ACCUMULATION AREA (CAA)

Date: _____
Time: _____
Inspectors Name (Print): _____
Inspector (Signature): _____

HAZARDOUS WASTE STORAGE AREA INSPECTION SHEET
Location:_____

INSPECTION ITEMS	YES	NO	If NO, list the discrepancy, how and when was the discrepancy corrected? By whom? Was root cause fixed? Amount of time dedicated to fix the problem? Use additional sheets if necessary.
1. How many containers and what types of wastes are stored in the area (continue list on back of inspection if necessary)?			
2. Are container(s) in good condition?			
3. Are container label(s) clearly visible?			
4. Are container(s) labeled "Hazardous Waste" AND with other words which identify the contents?			
5. Is hazardous waste accumulation limited to less than 2,200 pounds or less than 2.2 pounds of acutely hazardous waste?			
6. Is the initial accumulation date marked on each container?			
7. Is waste compatible with the container?			
8. Are incompatible wastes kept separate?			
9. Is proper aisle space maintained in order to identify any leaking or damaged containers?			
10. Is the area clean (no signs of spillage) and are containers non-leaking?			
11. Is appropriate equipment located nearby and fully functional (i.e. fire extinguisher charged, spill kit fully stocked)?			
12. Are container(s) properly closed?			
13. Is the intended amount of spill-absorbent material readily available in case of an emergency?			
14. Has monthly generation remained less than 220 pounds of hazardous waste and less than 2.2 pounds of acutely hazardous waste?			
15. (Facilitites Only) Is PCB storage area maintained (labeling, dating and non-leaking).			

*****UPDATE WASTE ACCUMULATION LOG*****

SOUTH PLAINS COLLEGE
HAZARDOUS WASTE ACCUMULATION LOG

Department: _____ Lab/Class Room Number: _____

Date Placed into Storage	Waste Description	Proper DOT Shipping Name	EPA Waste Code	Quantity (pounds)	Date Shipped Off

APPENDIX E

RCRA Hazardous Waste Training Roster

&

Previous Training Attendance Records

SOUTH PLAINS COLLEGE
Annual Hazardous Waste Training

Training Date(s):_____

Trainer's Name (print):_____

Trainer's Name (signature):_____

Trainee's Name (print)	Trainee's Title

APPENDIX F

Chemical Compatibility Chart

EPA's Chemical Compatibility Chart

EPA - 600/2-80-076 April 1980

A Method for Determingng The Compatablity of Chemical Mixtures

Please Note: This chart is intended as an indication of some of the hazards that can be expected on mixing chemical wastes. of the differing activities of the thousands of compounds that may be encountered, it is not possible to make any chart definitive inclusive. It cannot be assumed to ensure compatibility of wastes because wastes are not classified as hazardous on the chart, blanks necessarily mean that the mixture cannot result in a hazard occurring. Detailed instructions as to hazards involved in and disposing of any given waste should be obtained from the originator of the waste.

Legend

Cod	Consequences
H	Heat Generation
F	Fire
G	Innocuous and non-flammable gas generation
GT	Toxic Gas formation
GF	Flammable Gas formation
E	Explosion
P	Violent Polymerization
S	Solubilization of toxic substance
U	May be hazardous, but Unknown

No.	Reactivity Group Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	101	102	103	104	105	106	107
1	**Acids, Mineral, Non-oxidizing**	1																																								
2	**Acids, Mineral, Oxidizing**		2																																							
3	**Acids, Organic**		G H	3																																						
4	**Alcohols and Glycols**	H	H F	H P	4																																					
5	**Aldehydes**	H P	H F	H P		5																																			
6	**Amides**	H	H GT				6																																			
7	**Amines, Aliphatic and Aromatic**	H	H GT	H		H		7																																		
8	**Azo Compounds, Diazo Compounds and Hydrazines**	H G	H GT	H G	H G	H			8																																	
9	**Carbamates**	H G	H GT						G H	9																																
10	**Caustics**	H	H	H		H				H G	10																															
11	**Cyanides**	GT GF	GT GF	GT GF					G			11																														
12	**Dithiocarbamates**	H,F GF	H,F GF	H,GT GF		GF GT		U	H G				12																													
13	**Esters**	H	H F						H G		H			13																												
14	**Ethers**	H	H F												14																												
15	**Fluorides, Inorganic**	GT	GT	GT												15																												
16	**Hydrocarbons, Aromatic**		H F														16																										
17	**Halogenated Organics**	H GT	H,F GT					H GT	H G		H GF	H						17																										
18	**Isocyanates**	H G	H,F GT	H G	H P			H P	H G		H,P G	H G	U						18																										
19	**Ketones**	H	H F						H G		H	H								19																								
20	**Mercaptans and Other Organic Sulfides**	GT GF	H,F GT						H G									H	H	H	20																						
21	**Metals, Alkali and Alkaline Earth, Elemental**	H,F GF	H,F GF	H,F GF	H,F GF	H,F GF	GF H	GF H	GF H	GF H	GF H	GF H	GF,H GT	GF H				H E	GF H	GF H	GF H	21																						
22	**Metals, Other Elemental & Alloys as Powders, Vapors, or Sponges**	H,F GF	H,F GF	G F					H,F GT	 U	GF H							H E	GF H		H,F GF		22																				
23	**Metals, Other Elemental & Alloys as Sheets, Rods, Drops, etc.**	H,F GF	H,F GF						H,F G									H F						23																		
24	**Metals and Metal Compounds, Toxic**	S	S	S			S	S			S														24																	
25	**Nitrides**	GF HF	H,F E	H GF	H,E GF	GF H			U	H G	U	GF H	GF H	GF H				GF H	U	GF H	GF H	E				25																	
26	**Nitriles**	H,GT GF	H,F GT	H							U											H P			S	GF H	26															
27	**Nitro Compounds, Organic**		H,F GT			H					H E											H,E GF				H,E GF		27														
28	**Hydrocarbons, Aliphatic, Unsaturated**	H	H F			H																	H E						28												
29	**Hydrocarbons, Aliphatic, Saturated**		H F																											29											
30	**Peroxides and Hydroperoxides, Organic**	H G	H E		H F	H G		H GT	H,F E	H,F GT		H,E GT	H,F GT					H E	H	H E	H,F GT	H E	H G		H G	H,E GF	H,P GT		H P		30											
31	**Phenols and Cresols**	H	H F						H G										H P			GF H				GF H					H	31									
32	**Organophosphates, Phosphothioates, Phosphodithioates**	H GT	H GT						 U		H E											H U											32								
33	**Sulfides, Inorganic**	GT GF	HF GF	GT		H			E										H			H GT												33							
34	**Epoxides**	H P	H P	H P	H P	 U		H P	H P		H P	H P	 U									H P	H P	H P		H P	H P					H P	H P	U	H P	34						
101	**Combustible and Flammable Materials, Miscellaneous**	H G	H,F GT																			H,F G				H,F GF					H,F GT				101					
102	**Explosives**	H E	H E	H E					H E		H E			H E								H E	H E	H E	E	H E					H E	H E		H E	H E	H E	102			
103	**Polymerizable Compounds**	P H	P H	P H					P H		P H	P H	 U									P H	P H	P H	P H	P H					P H	P H		P H		H E	103			
104	**Oxidizing Agents, Strong**	H GT		H GT	H F	H F	H,F GT	H,F GT	H E	H,F GT		H,E GT	H,F GT	H F	H F		H F	H GT	H,F GT	H F	H,F GT	H,F E	H,F E	H E		H,F E	H,F GT	H E	H F	H F	H G	H F	H,F GT	H,F GT	H,F G	H,F G	H E	H,F GT	104		
105	**Reducing Agents, Strong**	H GF	H,F GT	H GF	H,F GF	H,F GF	H GF	H G				H GT	H F				H,F E	H E	H GF	H GF	H GF	H GF					H GF			H E		H E	H,GT GF		H GF	H E	H,P GF	H,F E	105		
106	**Water and Mixtures Containing Water**	H	H						G										H G			H GF	H GF		S	H GF					GT GF			GT GF					GF GT	106	
107	**Water Reactive Substances**	<---------EXTREMELY REACTIVE!!!! DO NOT MIX WITH ANY CHEMICAL OR WASTE MATERIAL!!!! EXTREMELY REACTIVE!!!!---------->																																						107
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	101	102	103	104	105	106	107

APPENDIX G

Arrangements with Local Authorities

<Date>

Levelland Fire Department
Attn: Chief Otis Stark
502 Avenue F
Levelland, TX 79336

Levelland Police Department
Attn: Chief Tony Cowan
1310 Avenue H
Levelland, TX 79336

Covenant Hospital Levelland
Attn: Administrator
1900 College Avenue
Levelland, TX 79336

To Whom It May Concern:

This is to serve as notification that South Plains College, located at 1401 South College Avenue, Levelland, Texas, generates and stores hazardous waste on site prior to disposal. The types of hazardous waste generated at South Plains College include laboratory waste, used and obsolete laboratory chemicals, and used paints and solvents within various science departments, Fine Art, and the maintenance facilities buildings.

South Plains College maintains a Waste Management and Chemical Hygiene Plan. As such, in case of an emergency, the emergency coordinators on campus are:

Mr. Cary Morrow Primary Contact	Work Cell (806) 893-2922
Mr. Todd Gregg Alternate Contact	Work (806) 891-2363

If you have any questions, please do not hesitate to contact me.

Sincerely,

Mr. Cary Morrow
Director of Physical Plant
South Plains College

Enclosure

APPENDIX H

Historical Hazardous Waste Manifests

APPENDIX I

Historical Universal Waste Manifests

APPENDIX J

E-Waste Manifests and Certificates of Recycling

APPENDIX K

Used Oil Manifests

APPENDIX L

Miscellaneous Historical Disposal Documents

APPENDIX M

PCB Waste Manifests

HRP Associates, Inc.

Creating the Right Solutions Together

November 1, 2011

Mr. Cary Morrow
South Plains College
1401 S College Ave
Levelland, TX 79336

RE: SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN (SPCC), FOR SOUTH PLAINS COLLEGE (JOB # SOU5100.RA, TASK #06)

Dear Mr. Morrow:

Enclosed please find two (2) bound copies of the completed SPCC plan which has been prepared for South Plains College in accordance with 40 CFR 112. An electronic copy has also been provided via email. If you see the need for any corrections, please contact HRP and the necessary corrections will be made.

Your signature is required on all copies of the plan in the following sections:

- Management Approval (page ii);
- Recommendations (Page 31) when implemented; and,
- Appendix E: Certification of the Applicability of Substantial Harm Criteria Checklist.

HRP strongly recommends this plan be reviewed carefully for ongoing requirements required by this plan and 40 CFR 112. If you have any questions regarding this plan or if we can be of any further assistance to you, please do not hesitate to contact us at (800) 752-3922.

Sincerely,

HRP Associates, Inc.

Jeremy Lawson
Project Engineer

Ty Hawkins
Project Manager

Enclosures (1)

H:\T\ICUT-Texas Independent College_TX Colleges\South Plains College\Corrective Actions\SPCC\SPCC Cover Letter final.doc

CONNECTICUT

Corporate Headquarters
197 Scott Swamp Road
Farmington, CT 06032
800-246-9021
860-674-9570
FAX 860-674-9624

999 Oronoque Lane
Second Floor
Stratford, CT 06614
203-380-1395
FAX 203-380-1438

FLORIDA

2435 U.S. Highway 19
Suite 550
Holiday, FL 34691
727-942-2115
FAX 727-942-2113

MASSACHUSETTS

241 Boston Post Rd West
First Floor
Marlborough, MA 01752
508-630-0300
FAX 508-786-1901

NEW YORK

1 Fairchild Square
Suite 110
Clifton Park, NY 12065
888-823-6427
518-877-7101
FAX 518-877-8561

SOUTH CAROLINA

1327 Miller Road
Suite D
Greenville, SC 29607
800-752-3922
864-289-0311
FAX 864-281-9846

TEXAS

5601 Bridge Street
Suite 300
Fort Worth, TX 76112
817-492-7092
FAX 817-492-7001

www.hrpassociates.com

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

South Plains College
Levelland, TX 79336

JOB #SOU5100.RA, Task 06

Date of Plan

November 2011

Prepared by:

HRP Associates, Inc.
1327-D Miller Road
Greenville, SC 29607

This Spill Prevention Control and Countermeasure (SPCC) Plan was generated at the request of South Plains College by HRP Associates, Inc. It is the privileged property of South Plains College and HRP Associates, Inc., and is not to be distributed to or shared with anyone other than authorized personnel of South Plains College, HRP Associates, Inc., and/or local, state, or federal regulatory or emergency response authorities. This SPCC plan has been certified by a Professional Engineer and an original copy has been retained by HRP Associates, Inc. Any changes or modifications made to this plan (other than non-technical amendments such as changes to phone numbers or names) by South Plains College which are not certified by a Professional Engineer negate the Professional Engineer certification and may lead to a violation of the applicable SPCC regulations.

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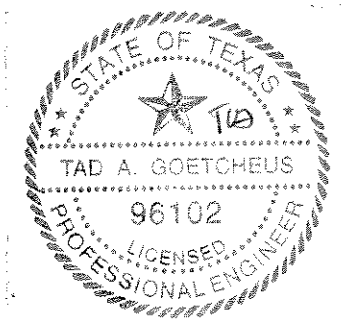
PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that: (i) I am familiar with the requirements of 40 CFR Part 112, (ii) my agent has visited and examined the facility, (iii) the plan has been prepared in accordance with good engineering practices including the consideration of applicable industry standards, (iv) procedures for required inspections and testing have been established, (v) and the Plan is adequate for the facility.



Tad Goetcheus
Printed Name of Registered
Professional Engineer

Signature of Registered
Professional Engineer

(Professional Engineer Seal)

Date: 11/1/2011 Registration No.: 96102 State: Texas

Note: This certification is contingent on meeting the recommendations listed in Section 13.0 of this plan. This certification shall in no way relieve South Plains College of its duty to prepare and fully implement a SPCC Plan in accordance with 40 CFR 112.7, as required by 40 CFR 112.3(a), (b), and (c).

GENERAL FACILITY INFORMATION

Name and Location of Facility:	South Plains College 1401 S. College Avenue Levelland, TX 79336
Type of Facility:	Educational Facility
Telephone Number:	(806) 894-9611
Normal Operating Schedule:	24 hours/day; 7 days/week; 52 weeks/year
Name and Address of Owner/Operator:	South Plains College 1401 S. College Avenue Levelland, TX 79336
Designated Person Responsible For Spill Prevention At The Facility:	Mr. Cary Marrow Director Physical Plant
Date of Initial Operation of Facility:	1957
Oil Spill History:	N/A
Receiving Waters:	Brashear Lake

MANAGEMENT APPROVAL

South Plains College is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill prevention control and countermeasures through regular reviews, updating and implementation of this SPCC Plan for its facility in Levelland, Texas. This SPCC Plan will be implemented as herein described. By signing this document, I certify that I am thoroughly familiar with this SPCC Plan.

Signature: Cary Marrow

Authorized Facility Representative: Cary Marrow

Title: Director Physical Plant

HRP

COMPLIANCE INSPECTION PLAN REVIEW PAGE

In accordance with 40 CFR 112.5(b), a review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, South Plains College will amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of review. Any amendment to the SPCC Plan shall be certified by a Professional Engineer* (in accordance with 40 CFR 112.3(d)) within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

REVIEW DATE	PLAN UPDATE REQUIRED (YES/NO)	DESCRIPTION OF REQUIRED REVISION	**SIGNATURE CERTIFYING TO STATEMENT BELOW	DATE OF AMENDMENT (IF NECESSARY)
9/30/2016			☐ will amend ☐ will not amend Signature: _____	
9/30/2021			☐ will amend ☐ will not amend Signature: _____	
9/30/2026			☐ will amend ☐ will not amend Signature: _____	
9/30/2031			☐ will amend ☐ will not amend Signature: _____	

CERTIFICATION STATEMENT

** A Professional Engineer's certification is required if (1) the site maintains oil in excess of 10,000 gallons, (2) the site has a single discharge exceeding 1,000 gallons or two discharges each exceeding 42 gallons within a twelve month period in the three years prior to the SPCC Plan self certification date, or (3) the SPCC Plan deviates from any requirements as allowed by 40 CFR 112.7(a)(2) and 112.7(d) except as provided in 40 CFR 112.6(c).*

***"I have completed a review and evaluation of the SPCC Plan for South Plains College and will/will not amend the Plan as a result."*

1.0 INTRODUCTION

The Oil Pollution Prevention Regulation in 40 CFR Part 112 was developed in order to (1) prevent oil discharges from reaching navigable waterways (defined to include, but not limited to: lakes, rivers, streams, and wetlands) and adjoining shorelines, and (2) to ensure effective response to oil discharges. Required under this rule is the development of a Spill Prevention Control and Countermeasure Plan (SPCC) for applicable owners, users and/or operators of facilities that could possibly discharge oil in harmful quantities into navigable waterways.

On January 14, 2010, the Environmental Protection Agency (EPA) put into effect a final rule amending the SPCC regulations. Under the SPCC requirements, owners or operators of facilities that "drill, produce, gather, store, use, process, refine, transfer, distribute, or consume oil and oil products" must prepare a SPCC if any of the following storage practices apply:

- greater than 1,320 gallons of oil is stored in above-ground containers/ tanks; or,

- greater than 42,000 gallons of oil is stored in underground containers/tanks provided the underground storage tank (UST) is not subject to the technical requirements of the UST regulations, 40 CFR Part 280 or 281.

Established under the SPCC regulations is a de minimus container size of 55 gallons. Only containers of oil (defined as "oil of any kind or in any form, including, but not limited to...petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil") with a capacity of 55 gallons or greater are counted in the calculation of the 1,320-gallon threshold. All containers with a storage capacity of less than 55 gallons of oil are exempt from the SPCC regulations. A complete copy of the SPCC regulations is included in Appendix A.

South Plains College (SPC) is required to prepare, maintain, and follow a SPCC plan since greater than 1,320 gallons of petroleum products are stored above ground and the discharge of oil could potentially impact the Brashear Lake via the municipal stormwater sewer system. The remainder of this document details South Plains College's SPCC, which has been written to comply with the regulations codified under 40 CFR 112. A completed SPCC plan checklist is provided in Appendix B which cross references this plan with the requirements of 40 CFR 112.

2.0 FACILITY DESCRIPTION

2.1 Facility Operations

South Plains College (SPC), located in Levelland, Texas (Figure 1), is a campus used for educational purposes. Paved parking areas, access road ways, green areas occupy the areas surrounding the buildings on campus. South Plains College is bordered by College Avenue to the West, A&M Lane to the south, Magnolia Street to the north, and Alamo Road to the east. South Plains College's total above ground oil storage capacity is approximately 3,453 gallons and includes the following containers with capacities at or exceeding 55-gallons:

- One (1) 1,020-gallon gasoline AST (located at the Warehouse)
- One (1) 500-gallon #2 Diesel AST (located at the Rodeo Building)
- One (1) 500-gallon used oil AST (located at the Auto-Diesel Shop)
- Two (2) 35-gallon used oil drums (located at the Ground and Maintenance Building)
- One (1) 200-gallon AST belly tank (located at the Fine Arts Building)
- One (1) 275-gallon tank of kitchen grease (located at the kitchen at Texan Hall)
- Six (6) 55-gallon used oil drums (located at the Auto-Diesel Shop)
- Five (5) hydraulic reservoirs (558 gallons) associated with elevators;
    - One (1) totaling 91 gallons located in Library West
    - One (1) totaling 100 gallons located in Library East
    - One (1) totaling 189 gallons located in Student Center
    - One (1) totaling 86 gallons located in Technology Arts
    - One (1) totaling 92 gallons located in Texan Dome

There are no known underground storage tanks at SPC.

The location of each storage unit on-site is depicted on Figure 1. A photo log of representative oil storage locations at South Plains College is included as Appendix G. Please note that Figure 1 has been provided at the end of the text for convenience to the reader and user of this SPCC Plan.

2.2 Drainage Pathways and Distance to Navigable Waters

Facility drainage, based on a visual observation of site contours, splits between two watersheds: the northeastern portion of the campus drains toward the north east and east side of the property. It is estimated, that drainage from this portion of the site would predominantly flow to Brashear Lake. The southwestern portion of the property flows west and north to city storm drains, which ultimately drain toward Brashear Lake.

3.0 RESPONSIBILITIES, NOTIFICATIONS AND REPORTING

3.1 Responsibilities

The duties of the Primary Emergency Coordinator and his/her alternate are to routinely inspect all storage and handling facilities and take corrective action when conditions warrant. In addition, the Primary Emergency Coordinator will participate in, set up and maintain: necessary spill emergency procedures; recordkeeping; personnel training; SPCC Plan Reviews and amendments (if required); and reporting requirements.

In the event of an oil release, the staff of South Plains College shall carry out the procedures outlined herein under the direction of the Primary Emergency Coordinator or his/her alternate(s).

3.2 Initial Notifications

In the event of any emergency or occurrence related to the release or threatened release of petroleum products, the following persons shall be notified immediately:

Name	Office Phone	24 hour phone
Cary Morrow (Primary Emergency Coordinator)	(806) 894-9611 Ext. 2420	(806) 893-2922
Todd Gregg (Alternate Emergency Coordinator)	(806) 894-9611 Ext. 2421	(806) 891-2363

The Primary Emergency Coordinator and his/her Alternate Emergency Coordinator have been chosen based on the following qualifications:

- Must be on-site or on call at all times;
- Must be familiar with the facility layout;
- Must know the locations and characteristics of the materials handled;
- Must be familiar with all operations and activities at the facility;
- Must be thoroughly familiar with emergency plans;
- Must know the locations of all records; and,
- Must have the authority to commit facility resources in the event of an emergency.

The Emergency Coordinators or designated Alternates will then notify the proper off-site authorities about the actual emergency, following their initial action at the site.

SPC staff does not respond to major spills. Response staff, along with the department involved, will contact campus police who will alert one of the alternative Emergency Coordinators. If the spill is beyond the capacity for campus staff to address, one of the commercial cleanup contractors will be contacted to provide a response.

3.3 Regulatory and Response Notifications for All Spills

The guidelines in this section apply to all spills: petroleum products, chemicals, and/or non-hazardous and hazardous waste.

1. Texas Requirements (Reference 30 TAC 327)

The Texas Commission on Environmental Quality (TCEQ) shall be notified as soon as possible, but no later than 24 hours, after the discovery of the spill. TCEQ defines a reportable spill as:

Petroleum Product and Used Oil	-25 Gallons into land; or -Quantity sufficient to create a sheen for spills into water
Crude oil and all other oils not defined as used oil or petroleum product	-210 gallons onto land; or -Quantity sufficient to create a sheen for spills into water
Hazardous Substances	-A reportable quantity as defined in Table 302.4 in 40 CFR 302.4 for spills onto land; or -The lesser of the 100 lbs or the reportable quantity as defined in Table 302.4 in 40 CFR 302.4 for spills into water
All other substances	100 pounds if spilled into water

State Emergency Response Center
(24 hours) **Phone: (800) 832-8224**

Lubbock Regional TCEQ Office **Phone: (806) 796-7092**

The following information must be provided:

- Name, title, affiliation, address and telephone number of reporter;

- For discharges from sites on land, the name of the site, street address, municipality, and the county;
- For discharges on, under or into water, the name of the water body, location of the discharge with reference to a fixed point, description of the area which the discharge may reach;
- Date and time at which the discharge began, the date and time at which the discharge was discovered, and, if the discharge has ended, the date and time at which it ended;
- Common name and quantity of material(s) involved, to the extent known;
- An estimate of the quantity discharged;
- The identity of any governmental representatives, including authorities or third parties, responding to the spill;
- Any actions taken to contain, clean up and remove the hazardous substance(s) discharged;
- The possible hazards to human health or the environment outside the facility;
- The extent of injuries, if any; and
- The name and address of any person responsible for the discharge (i.e. source of the spill).

2. Spills Threatening to Reach Navigable Waters

In the event that a spill of material of any amount threatens to reach navigable waters, the National Response Center in Washington, DC shall be contacted:

Authorities	Phone Numbers
National Response Center (NRC)	(800) 424-8802

If possible, South Plains College personnel should be ready to report the following information to the NRC:

- Your name, location, organization, and telephone number;
- Name and address of the party responsible for the incident;
- Date and time of the incident;
- Location of the incident;
- Source and cause of the release or spill;
- Types of material(s) released or spilled;
- Quantity of materials released or spilled;
- Danger or threat posed by the release or spill;
- Number and types of injuries (if any);
- Weather conditions at the incident location;
- Any other information that may help emergency personnel respond to the incident.

Navigable waters of United States are defined in 40 CFR Part 110.1 to include interstate waterways or intrastate waterways including lakes, rivers and streams which may be utilized by interstate travelers for recreational purposes. Navigable waters also include lakes, rivers and streams from which fish or shellfish are taken. The complete definition may be found in Section 502(7) of the Federal Water Pollution Control Act. In the event of a large volume release, oil products could potentially enter Brashear Lake via the municipal stormwater sewer system. Detailed information regarding individual storage areas is provided in Section 6.0.

3. Spills Threatening Human Health

In the event the Emergency Coordinator or designated alternate determines that the release of materials threatens human health outside the facility and evacuation may be necessary, he/she must also report his findings to the local authorities:

Authority	Phone Number
TCEQ Emergency Response	(800) 832-8224
Levelland Fire Department	911 or (806) 894-3154
Hockley County Office of Em. Mgt.	911 or (806) 894-4131

4. Commercial Clean-Up Contractors

Should a spill contractor be needed, South Plains College should contact one of the following contactors:

Priority Order	Firm	Phone Number
1.	Safety Kleen	(806) 622-7764

3.4 Federal Reporting

After a spill or release of greater than 1,000 gallons or after two spills of greater than 42 gallons within any twelve-month period, or if the spill impacted a navigable waterway, the Emergency Coordinator must report the event(s) to the following agency within 60 days.

The Regional Administrator
U.S. Environmental Protection Agency - Region VI
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202
Phone: (214) 665-2210

The EPA report must include:

- Name of the facility;
- Your name;
- Location of the facility;
- Maximum storage or handling capacity of the facility and normal daily throughput;
- Corrective action and countermeasures you have taken, including a description of equipment repairs and replacement;
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
- The cause of the discharge, including a failure analysis of the system of subsystem in which the failure occurred;
- Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
- Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

As required by EPA Federal Regulation 40 CFR 112.4(c), a copy of the EPA report must also be submitted to the TCEQ Emergency Response Section at the following address:

TCEQ
Attn: Emergency Response Section
2800 S. IH 35, STE. 100
Austin, TX 78704-5700
(512) 339-2929

If 1,000 gallons or more of material is spilled to a navigable waterway, or there are two or more reportable spills (to the National Response Center) in a year, the EPA may conduct an inspection of the site and review this Plan. Following the inspection and review, the EPA may require facility modifications and/or operational changes to minimize the possibility of future spills.

3.5 State Reporting

For all spills reported to the TCEQ, South Plains College will submit written information in the form of a letter describing the details of the discharge or spill and supporting the adequacy of the response action within 30 working days of the discovery of the reportable discharge or spill.

The documentation shall contain one of the following items:

-A statement that the discharge or spill response action has been completed and a description of how the response action was conducted. The statement shall include the initial report information outlined in Section 3.3 of this plan;

- A request for an extension of time to complete the response action, along with the reasons for the request. The request shall also include a projected work schedule outlining the time required to complete the response action. The executive director may grant an extension up to six months from the date the spill or discharge was reported. Unless otherwise notified by the appropriate regional manager or the Emergency Response Team, South Plains College shall proceed according to the terms of the projected work schedule; or

-A statement that the discharge or spill response action has not been completed nor is it expected to be completed within the maximum allowable six month extension. The statement shall explain why completion of the response action is not feasible and include a projected work schedule outlining the remaining tasks to complete the response action. This information will also serve as notification that the response actions to the discharge or spill will be conducted under the Texas Risk Reduction Program rules in Chapter 350 of the Texas Administrative Coalition. This report will be mailed to:

TCEQ
Attn: Emergency Response Section
2800 S. IH 35, STE. 100
Austin, TX 78704-5700
(512) 339-2929

3.6 Liability

The potential liability for the clean up of spills of oil or hazardous substances from on-shore facilities and vessels is very costly. Under the Clean Water Act (CWA), unless the spill is shown to have resulted from an act of God, negligence of the Federal Government, or act or omission of a third party, an on-shore discharger is subjected to the maximum liability of up to $50,000. Penalties may be levied in addition to clean-up costs. The CWA allows the recovery of costs expended by the Federal or State governments in restoring or replacing natural resources damaged by an oil or hazardous substance spill. If the spill results from a person's willful negligence or willful misconduct, the person is subjected to the full costs without any monetary limit. Failure to report a spill immediately to the National Response Center is punishable by a criminal fine of up to $10,000 and imprisonment of up to one year.

An owner, operator, or person in charge of any on-shore or offshore facility from which petroleum products or a hazardous substance is discharged in harmful quantities is subject to a separate administrative penalty from the U.S. Coast Guard of up to $50,000. For discharges resulting from willful negligence or willful misconduct, the maximum civil fine is $250,000. Each violation is a separate offense.

4.0 EMERGENCY PROCEDURES

In the event of a spill or release, the emergency procedures outlined in the Emergency Procedures flow chart provided below should be followed. **A copy of the emergency procedure flow chart should be in or near the Primary Emergency Coordinator's office, as well as all of the alternates.** If any employee discovers a spill or release it should be immediately reported to the Primary Emergency Coordinator. If the Primary Emergency Coordinator or alternate determines that the spill or release cannot be handled by on-site personnel and/or may be a threat to either health or the environment, the listed professional spill response contractor (previously listed in Section 3.3) should be contacted.

The Primary Emergency Coordinator or Alternate is responsible for determining when a spill event has concluded or is under control sufficiently such that normal activities and personnel presence may be safely resumed.

Only if the spill or release can be safely handled by on-site personnel, the following actions may be conducted:

- While awaiting arrival of the Emergency Coordinator or designated Alternates, personnel shall commence containment activities immediately, using all available manpower and spill response materials in the adjacent area of the spill.

- Immediate containment of the spill shall be initiated such as blocking of adjacent interior floor and exterior storm drains, constructing dikes, and using all available containment materials on hand.

- Contained materials should be removed as soon as possible and placed into proper containers, such as 55-gallon drums. All equipment and manpower shall be utilized to remove spilled materials promptly and in a safe manner. All drums used to contain spilled waste should be transported to the waste storage area for eventual off-site disposal by a licensed transporter.

EMERGENCY PROCEDURE FLOWCHART
SPILL AND/OR RELEASE OF HAZARDOUS MATERIAL
South Plains College, Levelland, Texas

CONTACT PRIMARY EMERGENCY COORDINATOR AND/OR SECONDARY COORDINATOR:

	Office Phone	24 hour phone
1) Primary Emergency Coordinator – Cary Marrow	(806) 894-9611 Ext. 2420	(806) 893-2922
2) Alternate Emergency Coordinator – Todd Gregg	(806) 894-9611 Ext. 2421	(806) 891-2363

EMERGENCY COORDINATOR OBTAINS THE FOLLOWING INFORMATION:

1) Nature of Emergency;
2) Location of Emergency;
3) Size and Extent of Emergency;
4) Hazardous Materials involved (if any); and
5) Whether any Personnel are injured.

PERSONNEL INJURED?

YES

EMERGENCY COORDINATOR OR ALT. CONTACTS THE FOLLOWING:

AMBULANCE:	911
COVENANT HOSPITAL:	(806) 894-4963
POISON CONTROL CENTER:	1-800-343-2722

BE PREPARED TO GIVE: NAME, ADDRESS, EXTENT OF INJURIES, EXTENT OF EMERGENCY, POSSIBLE CHEMICALS INVOLVED AND QUANTITY.

NO

IF NECESSARY, THE EMERGENCY COORDINATOR WILL ACTIVATE INTERNAL FACILITY ALARMS AND/OR COMMUNICATIONS SYSTEMS TO NOTIFY ALL PERSONNEL OF EVACUATION.

IS THE SPILL AN INCIDENTAL RELEASE THAT CAN BE ABSORBED, NEUTRALIZED, OR OTHERWISE CONTROLLED AT THE TIME OF RELEASE BY EMPLOYEES IN THE IMMEDIATE RELEASE AREA OR BY MAINTENANCE PERSONNEL UTILIZING EQUIPMENT ON-HAND WITHOUT JEOPARDIZING THEIR HEALTH OR SAFETY?

YES

CONTAIN SPILL, CLEAN-UP SPILLED MATERIAL, STORE PROPERLY FOR DISPOSAL

EMERGENCY COORDINATOR OR ALTERNATE CONTACTS THE STATE, AS NECESSARY (SEE SECTION 3.3)

TCEQ: (800) 832-8224; AND
LUBBOCK REGIONAL TCEQ OFFICE (806) 796-7092

NO

EMERGENCY COORDINATOR OR ALTERNATE CONTACTS:

FIRE DEPARTMENT:	911
TCEQ ERC:	(800) 832-8224
LUBBOCK REGIONAL TCEQ OFFICE	(806) 796-7092
COUNTY EM:	911 or (806) 894-4131
CONTRACTORS:	
Safety Kleen	(806) 622-7764

HAS SPILL REACHED OR THREATENED NAVIGABLE WATERS?

YES

EMERGENCY COORDINATOR OR ALTERNATE CONTACTS THE FOLLOWING:
NATIONAL RESPONSE CENTER (800) 424-8802

NO

SPILL CONTAMINATED MATERIAL CLEANED-UP AND STORED PROPERLY FOR DISPOSAL

REPORTING REQUIREMENTS MET (SECTION 3.4 AND 3.5)

EVENT CONCLUDED

5.0 PAST SPILL EXPERIENCE

According to 40 CFR 112.7(a), a facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken, and plans for preventing a recurrence.

According to SPC personnel, all identified releases can be considered minor spills of petroleum substances (spill control and cleanup performed by SPC personnel, with no known release to navigable waterways). These minor spills would be classified as a quantity of 5-gallon or less of petroleum substances. According to the South Plains College facilities department, no spills have occurred within the past twelve months.

Any future spills will be documented using the Spill form in Appendix C.

6.0 POTENTIAL SPILL PREDICTION

6.1 Oil Capacity and Storage

After a review of the SPC campus, it was determined that all petroleum products are stored and managed at the facility within bulk storage and oil filled operational equipment. Provided in Table 1 is a summary of the oil capacities and containment and control practices identified at SPC. At any one time, a total of approximately 3,453 gallons of fuel/oil is stored at the facility above ground. Tables 1A and 1B describe the potential type of failure(s), the estimated amount of material which may be released, the probable flow direction if a spill should occur, and existing secondary containment measures in each area of concern.

Oil Filled Operational Equipment

Oil-filled operational equipment includes any oil storage container in which the oil is present solely to support the function of the apparatus or the device. While oil-filled equipment is not subject to the bulk storage container requirements, it must still meet the requirements for general secondary containment. General secondary containment may include:

(i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;
(ii) Curbing;
(iii) Culverting, gutters, or other drainage systems;
(iv) Weirs, booms, or other barriers;
(v) Spill diversion ponds;
(vi) Retention ponds; or.
(vii) Sorbent materials.

Table 1A is a description of existing and recommended measures for the avoidance and/or containment of the release of materials from the facility associated with oil filled operational equipment. Specific facility recommendations are presented in Section 13.0 of this report. All oil reservoirs listed in Table 1A are compatible with the oil stored within.

TABLE 1A – OIL FILLED OPERATION EQUIPMENT OIL STORAGE
POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY
South Plains College
Levelland, Texas

Area/Source	Total Volume (gal.)/ Source	Potential Type of Failure	Potential Spill Volume (gal.)	Flow Direction And distance to closest storm water drain*	Secondary Containment
ELEVATOR HYDRAULIC RESERVOIRS (558 gallons)					
Library West (E1)	91 Hydraulic Oil	Reservoir/Pump failure	91	Concrete Floor, 5' from floor drain	A
		Spill during oil transfer	9		

TABLE 1A – OIL FILLED OPERATION EQUIPMENT OIL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY South Plains College Levelland, Texas					
Area/Source	**Total Volume (gal.)/ Source**	**Potential Type of Failure**	**Potential Spill Volume (gal.)**	**Flow Direction And distance to closest storm water drain***	**Secondary Containment**
Library East (E2)	100 Hydraulic Oil	Reservoir/Pump failure	100	Concrete Floor, No access to stormwater	A, B
		Spill during oil transfer	10		
Student Center (E3)	189 Hydraulic Oil	Reservoir/Pump failure	189	Concrete Floor, No access to stormwater	A, B
		Spill during oil transfer	19		
Technical Arts Center (E4)	86 Hydraulic Oil	Reservoir/Pump failure	86	Concrete Floor, No access to stormwater	A, B
		Spill during oil transfer	9		
Texan Dome (E5)	92 Hydraulic Oil	Reservoir/Pump failure	92	Concrete Floor, No access to stormwater	A, B
		Spill during oil transfer	9		
Secondary Containment Legend A To be contained by Speedi-Dry or other absorbent material. B Spill contained by impervious nature of building's floor and/or walls.					

Bulk Fuel Storage

Bulk fuel storage refers to any container (≥55 gallons capacity) used to store oil other than oil filled operational equipment. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. These containers are subject to the more laborious bulk storage container requirements of 40 CFR 112.8 and 40 CFR 112.12 which include but are not limited to sized secondary containment, integrity testing, facility and dike drainage, and discharge avoidance.

Table 1B is a description of existing and recommended measures for the avoidance and/or containment of the release of materials from the facility associated with bulk fuel storage. Specific facility recommendations are presented in Section 13.0 of this report. All containers and drums listed in Table 1B are compatible with the oil stored within. Pipe supports (as applicable) are all designed to minimize abrasion and corrosion and to allow for expansion and contraction.

TABLE 1B – BULK FUEL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY South Plains College Levelland, Texas							
Area/Source	**Total Volume (gal.)/ Source**	**Potential Type of Failure**	**Potential Spill Volume (gal.)**	**Flow Direction And distance to closest storm water drain***	**Overflow Protection/ Discharge Avoidance**	**Secondary Containment**	**Dike Draining Protocols**
OTHER ABOVEGROUND STORAGE TANKS AND DRUMS (2,420 gallons)							
Warehouse (T1)	1,020 Gasoline	Container Failure	1,020	Secondary Containment (Constructed Berm)	Tank gauged manually using a dip stick prior to filling	B[2]	Secondary containment area is not protected from accumulating rainwater. See Dike Draining Protocols in 6.3.2 and Appendix C.
		Spill during transfer	100	Onto gravel surface, no downgrade storm drain			
Rodeo (T2)	500 Diesel	Container Failure	500	No Secondary Containment	Tank gauged manually using a dip stick prior to filling	C	No secondary containment. See Section 6.3.2 as necessary.
		Spill during transfer	50	Onto ground/gravel surface, no downgrade storm drain			
Auto-Diesel (T3)	500 Used Oil	Container Failure	500	Secondary Containment (Constructed Berm)	Visual Gauge	B[2]	Secondary containment area is not protected from accumulating rainwater. See Dike Draining Protocols in 6.3.2 Appendix C.
		Spill during transfer	50	Onto pavement surface, no downgrade storm drain			
Grounds and Maintenance (D1)	Two 35-gallon containers of lubricant, used oil	Container Failure	70	Secondary Containment (Constructed Berm)	Visual Gauge	A, B[3]	N/A Stored Inside
		Spill during transfer	7	Onto pavement surface, no downgrade storm drain			
Auto-Diesel (D2)	Six 55-gallon containers of lubricant, used oil	Container Failure	330	Secondary Containment (Spill Pallet)	Visual Gauge	A, B[3]	N/A Stored Inside
		Spill during transfer	33	Onto pavement surface, no downgrade storm drain			

TABLE 1B – BULK FUEL STORAGE POTENTIAL SPILL PREDICTION AND CONTROL SUMMARY South Plains College Levelland, Texas							
Area/Source	**Total Volume (gal.)/ Source**	**Potential Type of Failure**	**Potential Spill Volume (gal.)**	**Flow Direction And distance to closest storm water drain***	**Overflow Protection/ Discharge Avoidance**	**Secondary Containment**	**Dike Draining Protocols**
WASTE KITCHEN GREASE STORAGE (275 gallons)							
Texan Hall (K1)	275 Kitchen Grease	Container Failure	275	Onto ground surface, no downgrade storm drain	Visual Gauge	C	No secondary containment. See Section 6.3.2 as necessary.
		Spill during transfer	2	Onto ground surface, no downgrade storm drain			
EMERGENCY GENERATOR FUEL STORAGE TANKS (200 gallons)							
Fine Arts Building (EG)	200 Diesel	Container failure	200	Into secondary containment (Double-Walled)	Fuel gauge	B[1]	Double-wall nature protects from accumulated rainwater
		Spill during transfer	20	Onto ground surface, no downgrade storm drain			

*Rate of flow would be instantaneous

Secondary Containment Legend

A To be contained by Speedi-Dry or other absorbent material.
B[1] Sized Secondary containment via double-walled construction
B[2] Sized Secondary containment via constructed berm
B[3] Sized Secondary containment via spill pallet
C Inadequate containment, see Section 13.0 for recommendations and implementation schedule

6.2 Containment

1. *Hydraulic Elevators and Transformers*

Five (5) hydraulic elevators, with hydraulic fluid capacities at or exceeding 55-gallons, are located throughout South Plains College's campus in various buildings. The hydraulic reservoirs are located within locked elevator or mechanical rooms with limited access. SPC does not own any of its oil filled pad mounted transformers.

Existing Containment and Safeguards

The hydraulic oil reservoirs for each elevator are located in locked elevator or mechanical rooms that are only accessible by authorized personnel. The walls and concrete floors of the elevator mechanical rooms provide for the majority of the secondary containment, and based upon HRP's site inspection of these areas, there are no floor drains in the majority of these locations. A designated vendor performs regular inspections of each elevator's components including each elevator's hydraulic reservoir and hydraulic cylinder.

The majority of the hydraulic elevator reservoirs are located within rooms with no drains or access to the outside. However, Table 1A references one elevator reservoir that is within reasonable distance to a floor drain located within the room housing the reservoir of oil. For this reservoir, a drain cover, diversionary tool, or other means of containment should be readily available to allow for a timely response should a spill or release occur (see Section 13.0).

Being oil filled operational equipment and subject to general containment requirements, preventive methods implemented for elevators will include having sorbent material readily available as outlined in Section 8.0 and conducting periodic inspections as outlined in Section 7.1.

2. *Emergency Generator Fuel Storage Tanks*

One (1) emergency generator with a 200- gallon integrated storage tank (belly tank) containing diesel fuel is located at the Fine Arts building on the SPC campus. The emergency generator is in an area accessible to the public, but all controls are within locked cabinets.

The emergency generator is equipped with an exterior locking mechanism to limit access to the inner components of the emergency generator.

Existing Containment and Safeguards

The integrated storage tank of the emergency generator is a double-walled steel tank. The generator tank is equipped with a visual fuel gauge and overfill box.

SPC must regularly inspect the emergency generator for a leak or release. Any evidence of a release should be promptly reported to the Emergency Coordinator. Any leak resulting from this unit will be contained with the double wall capacity of the tank. If a spill or release occurs during transfer, the spill will be contained by the fact that all storm drains in the vicinity are protected during transfers, as outlined in Section 6.3.1.

For spills or leaks contained within either the double walled portion of the tank or the storm water drain protective temporary berm, an outside contractor will be called upon to vacuum the contained fuel and remove any potentially contaminated soil, as necessary.

3. *Waste Kitchen Grease Storage*

One (1) 275-gallon container of waste kitchen grease is located outside Texan Hall. This container is serviced from this location by an outside vendor. The container is accessible to the public, and no storm water drain is located down grade of the container. This area should further be secured as outlined in Section 13.0.

Existing Containment and Safeguards

The kitchen grease collection unit located at the kitchen should be located on a spill pallet, upgraded to a double-walled unit, or be contained within a dike area. SPC must regularly inspect the kitchen grease units for leaks or releases. Any evidence of a release should be promptly reported to the Emergency Coordinator. Once supplied with a sized secondary containment, any leak resulting from this unit will be contained. If a spill or release occurs during transfer, the spill will be contained by the underlying containment.

Overfill protection is addressed by kitchen staff routinely gauging the available capacity remaining in the container prior to manually filling the tank.

For spills or leaks contained within either the containment or the storm water drain protective temporary berm, an outside contractor will be called upon to vacuum the contained oil and remove any potentially contaminated soil as necessary.

4. *Aboveground storage - Drums*

Approximately two (2) 55-gallon drums of various oil products are located in the Maintenance and Grounds Building and approximately six (6) 55-gallon drums of various oil products are located in the Auto-Diesel Building. All of

the 55-gallon drums are located within the walls of the building, on spill pallets, and are accessible only to authorized personnel.

Existing Containment and Safeguards

The 55-gallon drums are contained by spill containment pallets, as well as the walls and concrete floor of the building. Based upon HRP's initial site inspection of this area, there are no floor drains in the vicinity. The buildings and spill pallets provide adequate sized secondary containment and prevent spills or releases from reaching navigable waterways.

South Plains College must regularly inspect the 55-gallon drums for leaks or releases. Any evidence of a release should be promptly reported to the Emergency Coordinator. Any leak resulting from these units will be contained either within the four walls of the building or within the spill pallet. If a spill or release occurs during transfer or operation, the spill would be contained either by the spill pallets, or within the four walls of the buildings.

Overfill protection is addressed by maintenance staff visually gauging the available capacity remaining in the container prior to manually filling the drum.

For spills or leaks contained within the buildings, South Plains College will use absorbent material from locations identified in Section 8.0. The resulting waste from the clean up of this spill or release will be disposed in accordance with Section 6.3.3.

5. Above Ground Storage - Tanks

One (1) 1,020-gallon gasoline AST is located at the Warehouse, one (1) 500-gallon used oil AST is located at the Auto-Diesel Building, and one (1) 500-gallon AST containing diesel fuel located at the Rodeo Building.

Existing Containment and Safeguards

The AST at the Auto-Diesel is within a berm area, which provides secondary containment for the AST. The containment system is not provided with a drain. Fuel levels in the tank are gauged using a visual gauge. If a spill or release occurs during transfer, the spill will be contained by SPC personnel in attendance with diking material readily available to prevent a spill or release (see Section 6.3.1). Due to the presence of visible cracks in the wall of the containment berm, HRP recommends sealing the cracks to make the berm impervious. No stormwater drain is located immediately down-gradient of this storage tank.

The AST at the Warehouse is within a berm area, which provides secondary containment for the AST. The containment system is not provided with a drain. Fuel levels in the tank are gauged manually, using a dip stick. If a spill or release occurs during transfer, the spill will be contained by SPC personnel in attendance with diking material readily available to prevent a

spill or release (see Section 6.3.1). No stormwater drain is located immediately down-gradient of this storage tank.

The AST at the Rodeo Building is not equipped with secondary containment. Fuel level in the tank is gauged manually, using a dip stick. If a spill or release occurs during transfer, the spill will be contained by SPC personnel in attendance with diking material readily available to prevent a spill or release (see Section 6.3.1). No stormwater drain is located immediately down-gradient of this storage tank.

6. *Underground Storage Tanks*

There are no known USTs at South Plains College.

6.3 General Practices

6.3.1 Oil Transfer Procedures

Elevators

During the removal or addition of elevator hydraulic oil, South Plains College personnel should supervise these operations if they are being performed by an outside contractor. If trained SPC Personnel are not in attendance during such activities, the contractor must be informed by SPC Personnel of the emergency response procedures outlined in this plan. Specifically, the contractor must be notified of whom to call on campus in case of a spill or release.

Kitchen Grease

South Plains College personnel, or trained food services contractors acting on their behalf, should use caution when adding waste kitchen grease to the 275-gallon storage container. Prior to the transfer of used kitchen grease to the storage container, personnel should note the level within the container to ensure adequate capacity is available within the container.

South Plains College personnel, or trained food services contractors acting on their behalf, must oversee the removal of the waste kitchen grease when vacuum pumped by the disposal contractor to ensure proper procedures and precautions are taken to minimize any releases. SPC personnel will be present at all loading and off-loading events.

To reduce the potential for a spill to a storm water drain, oil will not be added to or removed from the device during a heavy rain event, if at all possible.

Above Ground – Drums

Oils are consumed from the drums and are added to drums. All drums throughout campus are stored on spill pallets. Care should be taken to minimize releases. Once the drums are empty, they are to be returned to the vendor and not reused. SPC personnel should be present at all times when vendors are loading or unloading drums.

ASTs

During delivery of fuel to the ASTs throughout campus, the delivery truck's tires must be chocked. During fuel transfers, the delivery truck driver and South Plains College personnel must observe the filling level of material in the tank via a visual tank gauge or an electronic tank monitoring system to prevent overfilling the tank. In addition, before and after delivery, all valves on the truck and tank must be inspected to ensure none are leaking. To meet the requirements of overfill protection SPC will ensure that:

- The tank is "sticked" to ensure adequate capacity to receive the delivery;
- a receipt be obtained; and,
- storm water drains or ditches are protected from a spill or release.

Note: Regarding Environmental Equivalence: Sections 112.8(c)(8) requires that each container be engineered to avoid discharges during filling operations. The regulations allow this requirement to be fulfilled either by providing (i) high level alarm with audible or visual signal; (ii) high liquid level pump cutoff device; (iii) direct audible or code signal communication between container gauger and pumping station; (iv) fast response system for determining liquid level; or (v) regular test of liquid level sensing devices. The regulations also allow for environmental equivalent protection when one of the previously listed methods is not employed.

South Plains College is using an environmental equivalent protection method, which incorporates inventory controls and fueling procedures due to the fact that the previously listed methods are currently not available on the tank in question. By providing the Professional Engineer certification on page i of this plan, the Professional Engineer (PE), using good engineering practices, has deemed that this method is both appropriate and equivalent in avoiding overfills.

The fill ports of the ASTs should be locked after the delivery is complete. If at all possible, to reduce the potential for a spill to a storm water drain, fuel oil, diesel or gasoline will not be off loaded or unloaded during a heavy rain event, it at all possible.

6.3.2 Dike Drainage

All containment structures at the facility should be protected from rainwater accumulation. In case of rainwater accumulation, a draining log should be used to document all dike or secondary containment draining activities. The draining log, available in Appendix D, outlines the draining procedures which entail the following:

- Trained South Plains College personnel visually inspect the contained rainwater for evidence of an oily sheen or film;
- Trained South Plains College personnel visually inspect the contained rainwater for evidence of color;
- Trained South Plains College personnel visually inspect the contained rainwater for evidence of oil sludge or deposits.
- If there is any evidence of an oily sheen or film, discoloration, or oily sludge or deposits, South Plains College personnel will NOT drain the accumulated liquid to the ground but will contact an outside contractor to vacuum the contained fuel/oil/water mixture and dispose in accordance with the resulting waste stream determination.
- If the containment area is drained to the ground, South Plains College personnel will monitor the entire draining event (i.e. not leave that dike or containment area while the dike is being drained). Additionally, all drain lines must be securely closed and locked after the event.

6.3.3 Recovered Clean-up Material Disposal

South Plains College typically would use absorbent mats, absorbent socks, and granular loose absorbent material to contain minor spills or releases.

Waste absorbent material should be cleaned-up and disposed using the following procedure:

1. Contain the clean-up material into a dedicated storage container as soon as a spill is absorbed, but no later than the end of the day in which the spill occurred;

2. The dedicated drum should be labeled with the words “REGULATED WASTE” and “WASTE CHEMICAL SOLID”;

3. Conduct a hazardous waste determination to determine if the material is hazardous or non-hazardous waste;

4. The used clean-up material must then be disposed properly based on the outcome of the hazardous waste determination; and,

5. Shipping records for used materials that are transported off-site should be maintained in South Plains College's files.

6.3.4 Visiting Vehicle Traffic

All SPC-owned kitchen grease containers, ASTs, and drums are located away from primary roadways and therefore are not in the path of routine vehicular traffic.

6.3.5 Drum Handling

The following precautions should be taken during drum handling operations:

- Keep the drum closed at all times, except when adding or removing oil; and,

- Use appropriate transport devices, such as a dolly or a specifically designed handcart.

7.0 INSPECTIONS

7.1 Visual Inspections

On a monthly basis, South Plains College personnel or a designated vendor must inspect each 55-gallon storage drum, AST, and elevator hydraulic oil reservoir and their respective containment areas. A written record of the inspections must be kept as required by 40 CFR Part 112.7 Section (e). An SPCC Inspection Log, (Appendix D), must be completed and signed by the inspector as part of each monthly inspection.

At a minimum, South Plains College should inspect all tanks for deterioration (e.g. corrosion), leaks, tank supports and foundations, and condition of secondary containment, where applicable. In addition to the tank, the associated aboveground piping should be inspected for damage, including the condition of the piping system including all valves, flanges, etc. Containers and drums must be checked for proper labeling and signs of deterioration or leakage. Any sign of rust, corrosion, or leakage constitutes an unsatisfactory condition requiring appropriate preventive maintenance. Any container or drum label deficiencies must be corrected immediately. The containment areas must also be inspected for cracks or other forms of deterioration.

South Plains College personnel should also verify the adequate supply of spill containment and abatement materials. See Section 8.0 for a detailed list of spill abatement equipment and materials maintained on-site.

All inspection logs should be made a part of the SPCC and maintained on-site for at least three (3) years. Any deficiencies should be reported to the Emergency Coordinator and corrected as soon as possible.

7.2 Inspection of Bulk Storage Containers (i.e. AST's)

The ASTs, the used kitchen grease containers, and 55-gallon drums on campus are considered to be bulk storage containers and are therefore regulated under 40 CFR 112.8(c) or 40 CFR 112.12(c). Visual inspections of each container must include, if applicable:

- Inspection of tank's supports and foundation;
- Inspection of the outside of the container for signs of deterioration;
- Inspection for discharges; and,
- Accumulation of oil inside secondary containment areas.

Any signs of a loss of oil must be promptly corrected and any accumulation of oil must be removed. The inspection log in Appendix D will document these visual inspections.

7.3 Integrity Testing

Each container with a capacity of 55-gallons or greater (e.g. 55-gallon drum, tank, etc.), which is not an oil-filled electrical, operating or manufacturing equipment, is considered to be a bulk storage container and is therefore regulated under 40 CFR 112.8(c)(6). Each above ground bulk storage container must be tested or inspected for integrity on a regular schedule and when material repairs are made. In addition to visual inspections, Section (c) (6) of 40 CFR Part 112.8 requires that above ground tanks be tested for integrity on a regular schedule and when material repairs are made.

Tanks in excess of 750 gallons are required to be inspected to industry standards, by a certified inspector. It should be noted that there are no industry standards for integrity testing containers with a storage capacity of less than 660 gallons. Therefore, it is recommended that the tank manufacturer be contacted in order to determine the life expectancy (generally 20 years) of containers with a storage capacity less than 660 gallons. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

The integrity testing may include techniques such as hydrostatic, radiographic, ultrasonic, acoustic emission, or another discipline of non-destructive shell testing. Typically, external testing needs to be conducted every five (5) years, and internal testing is needed at least every twenty (20) years. Future test results are recorded in Appendix H.

The integrity testing requirement does <u>not</u> apply to oil-filled electrical operating and manufacturing equipment, 55-gallon drums which are not reused on-site, or USTs subject to 40 CFR 280. Based on these criteria, South Plains College shall assess the perform integrity of the following bulk storage tanks:

- One (1) 1,020 gasoline fuel AST (located at the Warehouse)
- One (1) 500-gallon #2 Diesel AST (located at the Rodeo Building)
- One (1) 500-gallon used oil AST (located at the Auto-Diesel Shop)
- One (1) 200-gallon AST belly tank (located at the Fine Arts Building)
- One (1) 275-gallon tank of kitchen grease (located at the kitchen at Texan Hall)

The regulations allow deviations from this requirement where “you provide equivalent environmental protection by some means of spill prevention, control, or countermeasure.” 40 CFR Part 112.7(a)(2). An EPA letter to the Petroleum Marketers Association of America stated that for well-designed shop-built containers with a capacity of 30,000 gallons or less, “visual inspection plus elevation of a shop-built container in a manner that decreases corrosion potential and makes all sides of

the container, including the bottom, visible during inspection (e.g. where containers are mounted on structural supports) would be considered 'equivalent.' "

The life expectancy of a typical shop built tank is approximately 20 years, after which it is past its nominal useful life. Although a rigorous testing program could justify leaving tanks past their life expectancy in-place, the cost of such testing is likely to be more than the expense of replacing the tank. Therefore, HRP recommends, as an environmental equivalent, that SPC replace all eligible tanks (i.e. less than 660 gallons) at the end of their 20-year life cycle.

Integrity of the bulk storage tanks will be ensured on site as follows:

TABLE 7.1
INTERGRITY ASSESMENT REQUIREMENT SUMMARY

Location	Description	Installation Date	Integrity Testing Implementation
Warehouse	1,020 gallon gasoline AST	Pre-1999	External testing needs to be conducted every five (5) years, and internal testing is needed at least every twenty (20) years.
Rodeo	500 gallon diesel fuel AST	Pre-1999	Less than 660 gallons; therefore, will be replaced as needed. (Approximately 20 year useful life)
Auto-Diesel	500 gallon Used Oil AST	Pre-1999	Less than 660 gallons; therefore, will be replaced as needed. (Approximately 20 year useful life)
Kitchen	275-gallon used kitchen grease containers	Pre-1999	Less than 660 gallons; therefore, will be replaced as needed. (Approximately 20 year useful life)
Fine Arts	200-gallon diesel fuel belly tank	Pre-1999	Less than 660 gallons; therefore, will be replaced as needed. (Approximately 20 year useful life)

8.0 SPILL ABATEMENT EQUIPMENT AND MATERIALS

South Plains College must maintain spill control equipment for all of the oil storage areas on-site. The following materials must be provided:

- absorbent material (i.e. Speedi-Dry, pads, and booms);
- shovel/broom; and,
- temporary disposal bag.

Spill control equipment should be stored in locations, which are accessible to all employees and located near oil storage locations. South Plains College personnel should inspect the spill control equipment periodically to ensure that they are maintained in working order and spill abatement materials are replenished as needed.

It is recommended that spill control equipment be maintained at the following locations:

- Elevator at Library West
- Warehouse
- Maintenance Building
- Rodeo Building
- Emergency Generator at the Fine Arts Building

Commercial clean-up contractors who could be contacted by South Plains College if their assistance is needed are as follows:

Priority Order	Firm	Phone Number
1.	Safety Kleen	(806) 622-7764

9.0 SECURITY

SPC's Hours of operations are 24 hours a day 7 days a week as the site is always occupied with students, staff and students living on-site. In addition, SPC maintains a private security force, along with state and local police patrols to ensure the security of the campus. They maintain a staff of eight (8) full time Campus Police officers. The internal and external areas are patrolled, and the campus maintains over 300 security cameras. All of the remaining fuel storage locations are either within locked areas to prevent unauthorized access, or are easily visible and therefore monitored by SPC security forces.

10.0 TRAINING

EPA Regulation 40 CFR Part 112.7(f) requires that annual training be provided for all "oil handling" personnel to assure an understanding of the SPCC plan. Personnel at South Plains College whose duties involve the daily management, use, inspection or maintenance of oil storage, transfer, process or treatment equipment will be trained in the contents of this SPCC Plan. This training should highlight those portions of the SPCC as they relate to facility operations, including, but not limited to, known discharges or failures, malfunctioning components, and recently developed precautionary measures. The training must include the following:

- Operation and Maintenance of equipment to prevent the discharge of oil;
- Discharge procedure protocols;
- Applicable pollution control laws, rules and regulations;
- General facility operations;
- Contents of the facility SPCC plan; and,
- Review of any spills or releases in the last year.

All current and new hires of "oil handling" personnel shall be trained by South Plains College prior to beginning work. This training includes a detailed and complete review of SPC's SPCC plan and its standard operating procedures. Annual refreshers of this training will be given to all facility employees. Sign-in sheets (example in Appendix F) for each training session will be maintained in Appendix H of this SPCC.

The Emergency Coordinator, also the Designated Person Responsible for spill prevention at the facility (page ii), will approve the SPCC Plan and certify that he/she is thoroughly familiar with the Plan. As such, the Emergency Coordinator is qualified to conduct training of oil handling personnel or may opt to designate to another qualified individual thoroughly familiar with this plan to conduct such training.

11.0 FACILITY RESPONSE PLAN

South Plains College is not required to prepare and submit a Facility Response Plan defined under 40 CFR Part 112.20 for the following reasons:

1. This facility does not transfer oil over water to or from vessels with a total oil facility storage capacity greater than or equal to 42,000 gallons.

2. The facility does not have a total oil storage capacity greater than or equal to 1,000,000 gallons.

Since South Plains College does not meet the substantial harm criteria, South Plains College must only complete a Certification of Harm Determination Form and maintain the form as part of their SPCC Plan. A copy of the signed Certification of Harm Determination form, is included in Appendix E.

12.0 SPCC PLAN AMENDMENT

12.1 Facility Modifications

This SPCC Plan, under 40 CFR 112.5, must be amended whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for a discharge of oil to navigable waters of the United States or adjoining shorelines. These plan amendments must be prepared within six (6) months and fully implemented as soon as possible, but not later than six (6) months following the plan's amendment. Emergency response issues should be reviewed when:

1. The plan fails during an emergency;
2. It becomes evident that emergency contacts are not equipped to handle situations; or,
3. There are personnel changes (i.e. emergency coordinator or alternate).

12.2 US EPA Requirements

The Environmental Protection Agency Regional Administrator may require amendments to the Plan whenever the facility has: 1) discharged more than 1,000 U.S. gallons into or upon the navigable waters in the U.S.; 2) discharged oil in quantities larger than 42 gallons, as defined in 40 CFR Part 112.1(b), into or upon the navigable waters of the U.S. in two spill events, occurring within any twelve month period.

12.3 5-Year Revisions

Regardless of facility changes, the SPCC Plan must also undergo a complete review and evaluation at least once every five (5) years. As a result of this review, the plan must be updated within six (6) months to include more effective prevention and control technology, if such technology is identified as having the ability to significantly reduce the likelihood of spills, and has been field proven at the time of the review. All technical amendments to this plan shall be certified by a Professional Engineer in accordance with 40 CFR 112.3(d). Non-technical amendments include changes to phone numbers or names. These amendments should be made as the change occurs, initialed, and dated by the South Plains College personnel.

All 5-year SPCC plan reviews must be documented at their completion in the SPCC Plan Review Log on page iii at the beginning of this plan. The person responsible for the 5-year review must attest to the certification statement with their signature, include the date of the review and indicate whether a revision to the plan is necessary, as well as date of the revision, if applicable.

13.0 RECOMMENDATIONS

HRP recommends the following in order for South Plains College to fully implement this SPCC Plan and be compliant with the SPCC regulations. SPC should complete the far right column at the time that each recommendation is implemented. Failure to implement these recommendations will negate the PE signature associated with this SPCC Plan.

Recommendation Number	Recommendation	Corresponding Section in SPCC Plan	Proposed Implementation Date*	Actual Implementation Date and Signature
1	At the time of the site visit, a slight crack was apparent in the berm surrounding the gasoline fueling tank at the Auto-Diesel. This crack should be sealed to ensure the integrity of the berm.	6.2	December 11, 2011	11/17/11 Larry Mauro
2	The drain located on the gasoline tank at the Warehouse should be closed at all times.	6.2	December 11, 2011	11/17/11 Larry Mauro
3	The cover on the used oil tank located at the Auto-Diesel Building should be closed at all times.	6.2	December 11, 2011	11/17/11 Larry Mauro
4	The broken cover on the belly tank of the emergency generator at the Fine Arts Building should be replaced.	6.2	December 11, 2011	11/22/11 Larry Mauro
5	Spill abatement should be in place at the locations stated in Section 8.0.	8.0	December 11, 2011	12/2/11 Larry Mauro
6	Used kitchen grease containers must be provided with sized secondary containment.	6.2	December 11, 2011	12/9/11 Larry Mauro
7	Implement Dike Draining Log found in Appendix D.	Appendix D	December 11, 2011	11/17/11 Larry Mauro
8	Provide sized secondary containment for the diesel tank located at Rodeo.	6.2	December 11, 2011	12/8/11 Larry Mauro

**Per Section 12.1, implementation of these recommendations should be addressed within 6 months of the Plan Revision Date.*

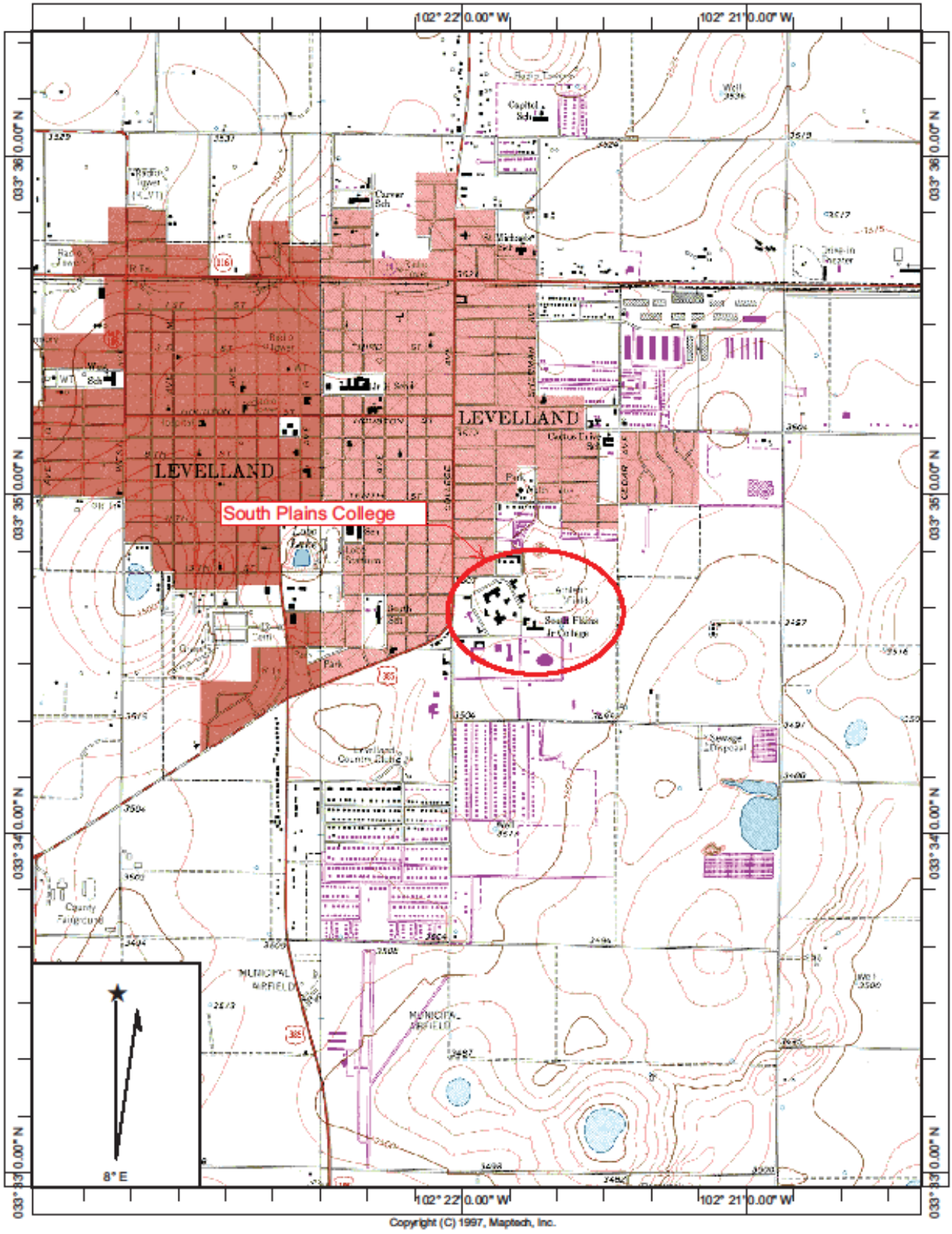


Figure 1

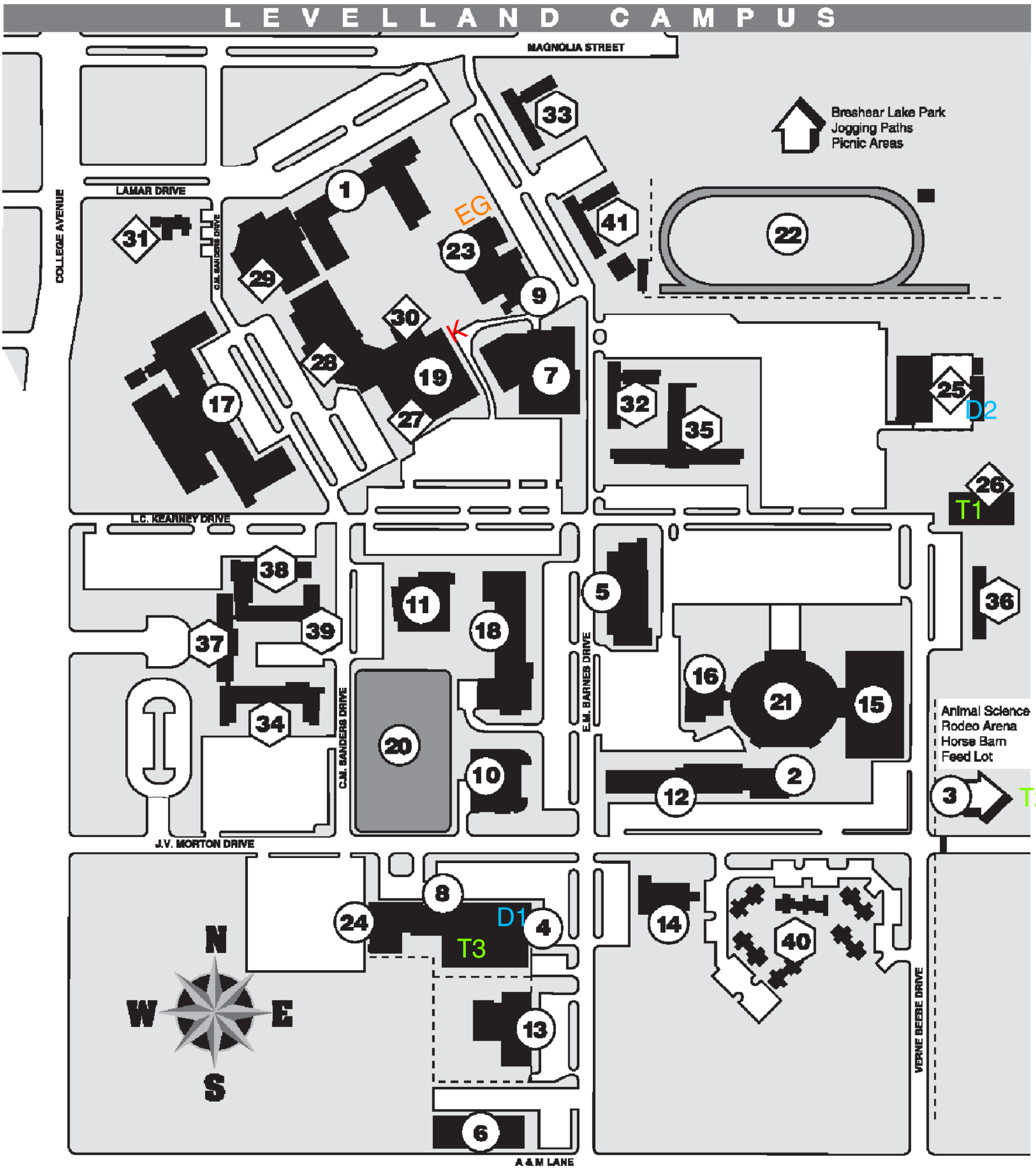
South Plains College
1401 South College Ave
Levelland, TX 79336

Compiled:

October 12, 2011

HRP Associates, Inc.
Creating the Right Solutions Together

1327-D Miller Road
Greenville, SC 29607



Key to Campus Buildings

● INSTRUCTIONAL BUILDINGS

1. Administration Building (AD)
2. Agriculture Building (AG)
3. Animal Science Center (ARENA)
4. Auto - Diesel Shop (DSHOP)
5. Communications and English Building (CM)
6. Cosmetology (COSBL)
7. Creative Arts Building (CB)
8. Electronics Service Technology (ESTBL)
9. Fine Arts Building (FA)
10. Law Enforcement Building (LE)
11. Library (LIB)
12. Math and Engineering Building (M)
13. Metals Technology Building (MT)
14. Natatorium (NAT)
15. Physical Education Building (PE)
16. Racquetball Courts
17. Science Building (S)
18. Technical Arts Center (TA)
19. Technology Center (TC)
20. Tennis Courts
21. Texan Dome (DOME)
22. Texan Track
23. Theater for the Performing Arts (STAGE)
24. Welding Technology Building (WT)

◆ NON-INSTRUCTIONAL BUILDINGS

25. Maintenance Building
26. Maintenance Warehouse
27. New Student Relations
28. Student Center
29. Student Services Building (SS)
30. Texan Hall
31. Visitors Center

● RESIDENCE HALLS

32. Forrest Hall
33. Frazier Hall
34. Gillespie Hall
35. Lamar Hall
36. Magee Hall
37. Marvin Baker Center
38. N. Sue Spencer Hall
39. S. Sue Spencer Hall
40. Smallwood Apartments
41. Stroud Hall

Rev. 5/05

LEGEND

D – *DRUMS*
K – *KITCHEN GREASE*
EG – *EMERGENCY GENERATOR*
T – *TANKS*

FIGURE 2
CAMPUS MAP
SOUTH PLAINS COLLEGE
LEVELLAND, TEXAS
HRP# SOU5100.RA
NOT TO SCALE

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APPENDIX A

SPCC REGULATIONS
(40 CFR PART 112)

engine on a public vessel) and any discharges of such oil accumulated in the bilges of a vessel discharged in compliance with MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A;

(b) Other discharges of oil permitted under MARPOL 73/78, Annex I, as provided in 33 CFR part 151, subpart A; and

(c) Any discharge of oil explicitly permitted by the Administrator in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

[61 FR 7421, Feb. 28, 1996]

§ 110.6 Notice.

Any person in charge of a vessel or of an onshore or offshore facility shall, as soon as he or she has knowledge of any discharge of oil from such vessel or facility in violation of section 311(b)(3) of the Act, immediately notify the National Response Center (NRC) (800–424–8802; in the Washington, DC metropolitan area, 202–426–2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR part 153, subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR part 300, subpart E.

(Approved by the Office of Management and Budget under control number 2050–0046)

[52 FR 10719, Apr. 2, 1987. Redesignated and amended at 61 FR 7421, Feb. 28, 1996; 61 FR 14032, Mar. 29, 1996]

PART 112—OIL POLLUTION PREVENTION

Sec.

AUTHORITY: 33 U.S.C. 1251 *et seq.*; 33 U.S.C. 2720; E.O. 12777 (October 18, 1991), 3 CFR, 1991 Comp., p. 351.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

EDITORIAL NOTE: Nomenclature changes to part 112 appear at 65 FR 40798, June 30, 2000.

Subpart A—Applicability, Definitions, and General Requirements for All Facilities and All Types of Oils

SOURCE: 67 FR 47140, July 17, 2002, unless otherwise noted.

§ 112.1 General applicability.

(a)(1) This part establishes procedures, methods, equipment, and other requirements to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act).

(2) As used in this part, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa, as the case may require.

(b) Except as provided in paragraph (d) of this section, this part applies to any owner or operator of a non-transportation-related onshore or offshore facility engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using, or consuming oil and oil products, which due to its location, could reasonably be expected to discharge oil in quantities that may be harmful, as described in part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Magnuson Fishery Conservation and Management Act) that has oil in:

(1) Any aboveground container;

(2) Any completely buried tank as defined in §112.2;

(3) Any container that is used for standby storage, for seasonal storage, or for temporary storage, or not otherwise ''permanently closed'' as defined in §112.2;

(4) Any ''bunkered tank'' or ''partially buried tank'' as defined in §112.2, or any container in a vault, each of which is considered an aboveground storage container for purposes of this part.

(c) As provided in section 313 of the Clean Water Act (CWA), departments, agencies, and instrumentalities of the Federal government are subject to this part to the same extent as any person.

(d) Except as provided in paragraph (f) of this section, this part does not apply to:

(1) The owner or operator of any facility, equipment, or operation that is not subject to the jurisdiction of the Environmental Protection Agency (EPA) under section 311(j)(1)(C) of the CWA, as follows:

(i) Any onshore or offshore facility, that due to its location, could not reasonably be expected to have a discharge as described in paragraph (b) of this section. This determination must be based solely upon consideration of the geographical and location aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and must exclude consideration of manmade features such as dikes, equipment or other structures, which may serve to restrain, hinder, contain, or otherwise prevent a discharge as described in paragraph (b) of this section.

(ii) Any equipment, or operation of a vessel or transportation-related onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of EPA, dated November 24, 1971 (Appendix A of this part).

(iii) Any equipment, or operation of a vessel or onshore or offshore facility which is subject to the authority and control of the U.S. Department of Transportation or the U.S. Department of the Interior, as defined in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (Appendix B of this part).

(2) Any facility which, although otherwise subject to the jurisdiction of EPA, meets both of the following requirements:

(i) The completely buried storage capacity of the facility is 42,000 U.S. gallons or less of oil. For purposes of this exemption, the completely buried storage capacity of a facility excludes the capacity of a completely buried tank, as defined in §112.2, and connected underground piping, underground ancillary equipment, and containment systems, that is currently subject to all of the technical requirements of part 280 of this chapter or all of the technical requirements of a State program approved under part 281 of this chapter, or the capacity of any underground oil storage tanks deferred under 40 CFR part 280 that supply emergency diesel generators at a nuclear power generation facility licensed by the Nuclear Regulatory Commission and subject to any Nuclear Regulatory Commission provision regarding design and quality criteria, including, but not limited to, 10 CFR part 50. The completely buried storage capacity of a facility also excludes the capacity of a container that is ''permanently closed,'' as defined in §112.2 and the capacity of intra-facility gathering lines subject to the regulatory requirements of 49 CFR part 192 or 195.

(ii) The aggregate aboveground storage capacity of the facility is 1,320 U.S. gallons or less of oil. For the purposes of this exemption, only containers with a capacity of 55 U.S. gallons or greater are counted. The aggregate aboveground storage capacity of a facility excludes:

(A) The capacity of a container that is ''permanently closed'' as defined in §112.2;

(B) The capacity of a ''motive power container'' as defined in §112.2;

(C) The capacity of hot-mix asphalt or any hot-mix asphalt container;

(D) The capacity of a container for heating oil used solely at a single-family residence;

(E) The capacity of pesticide application equipment and related mix containers.

(3) Any offshore oil drilling, production, or workover facility that is subject to the notices and regulations of the Minerals Management Service, as specified in the Memorandum of Understanding between the Secretary of Transportation, the Secretary of the Interior, and the Administrator of EPA, dated November 8, 1993 (Appendix B of this part).

(4) Any completely buried storage tank, as defined in §112.2, and connected underground piping, underground ancillary equipment, and containment systems, at any facility, that is subject to all of the technical requirements of part 280 of this chapter or a State program approved under part 281 of this chapter, or any underground oil storage tanks including below-grade vaulted tanks, deferred under 40 CFR part 280, as originally promulgated, that supply emergency diesel generators at a nuclear power

generation facility licensed by the Nuclear Regulatory Commission, provided that such a tank is subject to any Nuclear Regulatory Commission provision regarding design and quality criteria, including, but not limited to, 10 CFR part 50. Such emergency generator tanks must be marked on the facility diagram as provided in §112.7(a)(3), if the facility is otherwise subject to this part.

(5) Any container with a storage capacity of less than 55 gallons of oil.

(6) Any facility or part thereof used exclusively for wastewater treatment and not used to satisfy any requirement of this part. The production, recovery, or recycling of oil is not wastewater treatment for purposes of this paragraph.

(7) Any ''motive power container,'' as defined in §112.2. The transfer of fuel or other oil into a motive power container at an otherwise regulated facility is not eligible for this exemption.

(8) Hot-mix asphalt, or any hot-mix asphalt container.

(9) Any container for heating oil used solely at a single-family residence.

(10) Any pesticide application equipment or related mix containers.

(11) Intra-facility gathering lines subject to the regulatory requirements of 49 CFR part 192 or 195, except that such a line's location must be identified and marked as ''exempt'' on the facility diagram as provided in §112.7(a)(3), if the facility is otherwise subject to this part.

(e) This part establishes requirements for the preparation and implementation of Spill Prevention, Control, and Countermeasure (SPCC) Plans. SPCC Plans are designed to complement existing laws, regulations, rules, standards, policies, and procedures pertaining to safety standards, fire prevention, and pollution prevention rules. The purpose of an SPCC Plan is to form a comprehensive Federal/State spill prevention program that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State, or local laws.

(f) Notwithstanding paragraph (d) of this section, the Regional Administrator may require that the owner or operator of any facility subject to the jurisdiction of EPA under section 311(j) of the CWA prepare and implement an SPCC Plan, or any applicable part, to carry out the purposes of the CWA.

(1) Following a preliminary determination, the Regional Administrator must provide a written notice to the owner or operator stating the reasons why he must prepare an SPCC Plan, or applicable part. The Regional Administrator must send such notice to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of such notice to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(2) Within 30 days of receipt of such written notice, the owner or operator may provide information and data and may consult with the Agency about the need to prepare an SPCC Plan, or applicable part.

(3) Within 30 days following the time under paragraph (b)(2) of this section within which the owner or operator may provide information and data and consult with the Agency about the need to prepare an SPCC Plan, or applicable part, the Regional Administrator must make a final determination regarding whether the owner or operator is required to prepare and implement an SPCC Plan, or applicable part. The Regional Administrator must send the final determination to the owner or operator by certified mail or by personal delivery. If the owner or operator is a corporation, the Regional Administrator must also mail a copy of the final determination to the registered agent, if any and if known, of the corporation in the State where the facility is located.

(4) If the Regional Administrator makes a final determination that an SPCC Plan, or applicable part, is necessary, the owner or operator must prepare the Plan, or applicable part, within six months of that final determination and implement the Plan, or applicable part, as soon as possible, but not

later than one year after the Regional Administrator has made a final determination.

(5) The owner or operator may appeal a final determination made by the Regional Administrator requiring preparation and implementation of an SPCC Plan, or applicable part, under this paragraph. The owner or operator must make the appeal to the Administrator of EPA within 30 days of receipt of the final determination under paragraph (b)(3) of this section from the Regional Administrator requiring preparation and/or implementation of an SPCC Plan, or applicable part. The owner or operator must send a complete copy of the appeal to the Regional Administrator at the time he makes the appeal to the Administrator. The appeal must contain a clear and concise statement of the issues and points of fact in the case. In the appeal, the owner or operator may also provide additional information. The additional information may be from any person. The Administrator may request additional information from the owner or operator. The Administrator must render a decision within 60 days of receiving the appeal or additional information submitted by the owner or operator and must serve the owner or operator with the decision made in the appeal in the manner described in paragraph (f)(1) of this section.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77290, Dec. 26, 2006; 73 FR 74300, Dec. 5, 2008; 74 FR 58809, Nov. 13, 2009]

§ 112.2 Definitions.

For the purposes of this part:

Adverse weather means weather conditions that make it difficult for response equipment and personnel to clean up or remove spilled oil, and that must be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height as specified in Appendix E to this part (as appropriate), ice conditions, temperatures, weather-related visibility, and currents within the area in which the systems or equipment is intended to function.

Alteration means any work on a container involving cutting, burning, welding, or heating operations that changes the physical dimensions or configuration of the container.

Animal fat means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin.

Breakout tank means a container used to relieve surges in an oil pipeline system or to receive and store oil transported by a pipeline for reinjection and continued transportation by pipeline.

Bulk storage container means any container used to store oil. These containers are used for purposes including, but not limited to, the storage of oil prior to use, while being used, or prior to further distribution in commerce. Oil-filled electrical, operating, or manufacturing equipment is not a bulk storage container.

Bunkered tank means a container constructed or placed in the ground by cutting the earth and re-covering the container in a manner that breaks the surrounding natural grade, or that lies above grade, and is covered with earth, sand, gravel, asphalt, or other material. A bunkered tank is considered an aboveground storage container for purposes of this part.

Completely buried tank means any container completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of this part.

Complex means a facility possessing a combination of transportation-related and non-transportation-related components that is subject to the jurisdiction of more than one Federal agency under section 311(j) of the CWA.

Contiguous zone means the zone established by the United States under Article 24 of the Convention of the Territorial Sea and Contiguous Zone, that is contiguous to the territorial sea and that extends nine miles seaward from the outer limit of the territorial area.

Contract or other approved means means:

(1) A written contractual agreement with an oil spill removal organization that identifies and ensures the availability of the necessary personnel and equipment within appropriate response times; and/or

(2) A written certification by the owner or operator that the necessary personnel and equipment resources, owned or operated by the facility owner or operator, are available to respond to a discharge within appropriate response times; and/or

(3) Active membership in a local or regional oil spill removal organization that has identified and ensures adequate access through such membership to necessary personnel and equipment to respond to a discharge within appropriate response times in the specified geographic area; and/or

(4) Any other specific arrangement approved by the Regional Administrator upon request of the owner or operator.

Discharge includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA; discharges resulting from circumstances identified, reviewed, and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit; or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of this part, the term discharge shall not include any discharge of oil that is authorized by a permit issued under section 13 of the River and Harbor Act of 1899 (33 U.S.C. 407).

Facility means any mobile or fixed, onshore or offshore building, property, parcel, lease, structure, installation, equipment, pipe, or pipeline (other than a vessel or a public vessel) used in oil well drilling operations, oil production, oil refining, oil storage, oil gathering, oil processing, oil transfer, oil distribution, and oil waste treatment, or in which oil is used, as described in Appendix A to this part. The boundaries of a facility depend on several site-specific factors, including but not limited to, the ownership or operation of buildings, structures, and equipment on the same site and types of activity at the site. Contiguous or non-contiguous buildings, properties, parcels, leases, structures, installations, pipes, or pipelines under the ownership or operation of the same person may be considered separate facilities. Only this definition governs whether a facility is subject to this part.

Farm means a facility on a tract of land devoted to the production of crops or raising of animals, including fish, which produced and sold, or normally would have produced and sold, $1,000 or more of agricultural products during a year.

Fish and wildlife and sensitive environments means areas that may be identified by their legal designation or by evaluations of Area Committees (for planning) or members of the Federal On-Scene Coordinator's spill response structure (during responses). These areas may include wetlands, National and State parks, critical habitats for endangered or threatened species, wilderness and natural resource areas, marine sanctuaries and estuarine reserves, conservation areas, preserves, wildlife areas, wildlife refuges, wild and scenic rivers, recreational areas, national forests, Federal and State lands that are research national areas, heritage program areas, land trust areas, and historical and archaeological sites and parks. These areas may also include unique habitats such as aquaculture sites and agricultural surface water intakes, bird nesting areas, critical biological resource areas, designated migratory routes, and designated seasonal habitats.

Injury means a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource resulting either directly or indirectly from exposure to a discharge, or exposure to a product of reactions resulting from a discharge.

Loading/unloading rack means a fixed structure (such as a platform, gangway) necessary for loading or unloading a tank truck or tank car, which is

located at a facility subject to the requirements of this part. A loading/unloading rack includes a loading or unloading arm, and may include any combination of the following: piping assemblages, valves, pumps, shut-off devices, overfill sensors, or personnel safety devices.

Maximum extent practicable means within the limitations used to determine oil spill planning resources and response times for on-water recovery, shoreline protection, and cleanup for worst case discharges from onshore non-transportation-related facilities in adverse weather. It includes the planned capability to respond to a worst case discharge in adverse weather, as contained in a response plan that meets the requirements in §112.20 or in a specific plan approved by the Regional Administrator.

Mobile refueler means a bulk storage container onboard a vehicle or towed, that is designed or used solely to store and transport fuel for transfer into or from an aircraft, motor vehicle, locomotive, vessel, ground service equipment, or other oil storage container.

Motive power container means any onboard bulk storage container used primarily to power the movement of a motor vehicle, or ancillary onboard oil-filled operational equipment. An onboard bulk storage container which is used to store or transfer oil for further distribution is not a motive power container. The definition of motive power container does not include oil drilling or workover equipment, including rigs.

Navigable waters of the United States means ''navigable waters'' as defined in section 502(7) of the FWPCA, and includes:

(1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92–500), and tributaries of such waters;

(2) Interstate waters;

(3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

Non-petroleum oil means oil of any kind that is not petroleum-based, including but not limited to: Fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

Offshore facility means any facility of any kind (other than a vessel or public vessel) located in, on, or under any of the navigable waters of the United States, and any facility of any kind that is subject to the jurisdiction of the United States and is located in, on, or under any other waters.

Oil means oil of any kind or in any form, including, but not limited to: fats, oils, or greases of animal, fish, or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits, or kernels; and, other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse, or oil mixed with wastes other than dredged spoil.

Oil-filled operational equipment means equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device. Oil-filled operational equipment is not considered a bulk storage container, and does not include oil-filled manufacturing equipment (flow-through process). Examples of oil-filled operational equipment include, but are not limited to, hydraulic systems, lubricating systems (*e.g.*, those for pumps, compressors and other rotating equipment, including pumpjack lubrication systems), gear boxes, machining coolant systems, heat transfer systems, transformers, circuit breakers, electrical switches, and other systems containing oil solely to enable the operation of the device.

Oil Spill Removal Organization means an entity that provides oil spill response resources, and includes any for-profit or not-for-profit contractor, cooperative, or in-house response resources that have been established in a geographic area to provide required response resources.

Onshore facility means any facility of any kind located in, on, or under any land within the United States, other than submerged lands.

Owner or operator means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated or maintained the facility immediately prior to such abandonment.

Partially buried tank means a storage container that is partially inserted or constructed in the ground, but not entirely below grade, and not completely covered with earth, sand, gravel, asphalt, or other material. A partially buried tank is considered an aboveground storage container for purposes of this part.

Permanently closed means any container or facility for which:

(1) All liquid and sludge has been removed from each container and connecting line; and

(2) All connecting lines and piping have been disconnected from the container and blanked off, all valves (except for ventilation valves) have been closed and locked, and conspicuous signs have been posted on each container stating that it is a permanently closed container and noting the date of closure.

Person includes an individual, firm, corporation, association, or partnership.

Petroleum oil means petroleum in any form, including but not limited to crude oil, fuel oil, mineral oil, sludge, oil refuse, and refined products.

Produced water container means a storage container at an oil production facility used to store the produced water after initial oil/water separation, and prior to reinjection, beneficial reuse, discharge, or transfer for disposal.

Production facility means all structures (including but not limited to wells, platforms, or storage facilities), piping (including but not limited to flowlines or intra-facility gathering lines), or equipment (including but not limited to workover equipment, separation equipment, or auxiliary non-transportation-related equipment) used in the production, extraction, recovery, lifting, stabilization, separation or treating of oil (including condensate), or associated storage or measurement, and is located in an oil or gas field, at a facility. This definition governs whether such structures, piping, or equipment are subject to a specific section of this part.

Regional Administrator means the Regional Administrator of the Environmental Protection Agency, in and for the Region in which the facility is located.

Repair means any work necessary to maintain or restore a container to a condition suitable for safe operation, other than that necessary for ordinary, day-to-day maintenance to maintain the functional integrity of the container and that does not weaken the container.

Spill Prevention, Control, and Countermeasure Plan; SPCC Plan, or Plan means the document required by §112.3 that details the equipment, workforce, procedures, and steps to prevent, control, and provide adequate countermeasures to a discharge.

Storage capacity of a container means the shell capacity of the container.

Transportation-related and non-transportation-related, as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, (appendix A of this part).

United States means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, the U.S. Virgin Islands, and the Pacific Island Governments.

Vegetable oil means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels.

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency or duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include playa

lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds.

Worst case discharge for an onshore non-transportation-related facility means the largest foreseeable discharge in adverse weather conditions as determined using the worksheets in Appendix D to this part.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77290, Dec. 26, 2006; 73 FR 71943, Nov. 26, 2008; 73 FR 74300, Dec. 5, 2008]

§ 112.3 Requirement to prepare and implement a Spill Prevention, Control, and Countermeasure Plan.

The owner or operator or an onshore or offshore facility subject to this section must prepare in writing and implement a Spill Prevention Control and Countermeasure Plan (hereafter ''SPCC Plan'' or ''Plan''),'' in accordance with §112.7 and any other applicable section of this part.

(a) If your onshore or offshore facility was in operation on or before August 16, 2002, you must maintain your Plan, but must amend it, if necessary to ensure compliance with this part, and implement the Plan no later than November 10, 2010. If your onshore or offshore facility becomes operational after August 16, 2002, through November 10, 2010, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan on or before November 10, 2010.

(b)(1) If you are the owner or operator of an onshore or offshore facility (excluding oil production facilities) that becomes operational after November 10, 2010, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan before you begin operations.

(2) If you are the owner or operator of an oil production facility that becomes operational after November 10, 2010, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan within six months after you begin operations.

(c) If you are the owner or operator of an onshore or offshore mobile facility, such as an onshore drilling or workover rig, barge mounted offshore drilling or workover rig, or portable fueling facility, you must prepare, implement, and maintain a facility Plan as required by this section. You must maintain your Plan, but must amend and implement it, if necessary to ensure compliance with this part, on or before November 10, 2010. If your onshore or offshore mobile facility becomes operational after November 10, 2010, and could reasonably be expected to have a discharge as described in §112.1(b), you must prepare and implement a Plan before you begin operations. This provision does not require that you prepare a new Plan each time you move the facility to a new site. The Plan may be a general Plan. When you move the mobile or portable facility, you must locate and install it using the discharge prevention practices outlined in the Plan for the facility. The Plan is applicable only while the facility is in a fixed (non-transportation) operating mode.

(d) Except as provided in §112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.

(1) By means of this certification the Professional Engineer attests:

(i) That he is familiar with the requirements of this part ;

(ii) That he or his agent has visited and examined the facility;

(iii) That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;

(iv) That procedures for required inspections and testing have been established; and

(v) That the Plan is adequate for the facility.

(vi) That, if applicable, for a produced water container subject to §112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.

(2) Such certification shall in no way relieve the owner or operator of a facility of his duty to prepare and fully implement such Plan in accordance with the requirements of this part.

(e) If you are the owner or operator of a facility for which a Plan is required under this section, you must:

(1) Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or at the nearest field office if the facility is not so attended, and

(2) Have the Plan available to the Regional Administrator for on-site review during normal working hours.

(f) *Extension of time.* (1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of a Plan, or any amendment thereto, beyond the time permitted for the preparation, implementation, or amendment of a Plan under this part, when he finds that the owner or operator of a facility subject to this section, cannot fully comply with the requirements as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or his agents or employees.

(2) If you are an owner or operator seeking an extension of time under paragraph (f)(1) of this section, you may submit a written extension request to the Regional Administrator. Your request must include:

(i) A full explanation of the cause for any such delay and the specific aspects of the Plan affected by the delay;

(ii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay; and

(iii) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment, or other preventive measures. In addition you may present additional oral or written statements in support of your extension request.

(3) The submission of a written extension request under paragraph (f)(2) of this section does not relieve you of your obligation to comply with the requirements of this part. The Regional Administrator may request a copy of your Plan to evaluate the extension request. When the Regional Administrator authorizes an extension of time for particular equipment or other specific aspects of the Plan, such extension does not affect your obligation to comply with the requirements related to other equipment or other specific aspects of the Plan for which the Regional Administrator has not expressly authorized an extension.

(g) *Qualified Facilities.* The owner or operator of a qualified facility as defined in this subparagraph may self-certify his facility's Plan, as provided in §112.6. A qualified facility is one that meets the following Tier I or Tier II qualified facility criteria:

(1) A Tier I qualified facility meets the qualification criteria in paragraph (g)(2) of this section and has no individual aboveground oil storage container with a capacity greater than 5,000 U.S. gallons.

(2) A Tier II qualified facility is one that has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons or no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism), and has an aggregate aboveground oil storage capacity of 10,000 U.S. gallons or less.

[67 FR 47140, July 17, 2002, as amended at 68 FR 1351, Jan. 9, 2003; 68 FR 18894, Apr. 17, 2003; 69 FR 48798, Aug. 11, 2004; 71 FR 8466, Feb. 17, 2006; 71 FR 77290, Dec. 26, 2006; 72 FR 27447, May 16, 2007; 73 FR 74301, Dec. 5, 2008, 74 FR 29141, June 19, 2009; 74 FR 58809, Nov. 13, 2009]

§112.4 Amendment of Spill Prevention, Control, and Countermeasure Plan by Regional Administrator.

If you are the owner or operator of a facility subject to this part, you must:

(a) Notwithstanding compliance with §112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or discharged more than 42

U.S. gallons of oil in each of two discharges as described in §112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject to this section:

(1) Name of the facility;

(2) Your name;

(3) Location of the facility;

(4) Maximum storage or handling capacity of the facility and normal daily throughput;

(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;

(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;

(7) The cause of such discharge as described in §112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;

(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and

(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

(b) Take no action under this section until it applies to your facility. This section does not apply until the expiration of the time permitted for the initial preparation and implementation of the Plan under §112.3, but not including any amendments to the Plan.

(c) Send to the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located a complete copy of all information you provided to the Regional Administrator under paragraph (a) of this section. Upon receipt of the information such State agency or agencies may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment, and other requirements necessary to prevent and to contain discharges from your facility.

(d) Amend your Plan, if after review by the Regional Administrator of the information you submit under paragraph (a) of this section, or submission of information to EPA by the State agency under paragraph (c) of this section, or after on-site review of your Plan, the Regional Administrator requires that you do so. The Regional Administrator may require you to amend your Plan if he finds that it does not meet the requirements of this part or that amendment is necessary to prevent and contain discharges from your facility.

(e) Act in accordance with this paragraph when the Regional Administrator proposes by certified mail or by personal delivery that you amend your SPCC Plan. If the owner or operator is a corporation, he must also notify by mail the registered agent of such corporation, if any and if known, in the State in which the facility is located. The Regional Administrator must specify the terms of such proposed amendment. Within 30 days from receipt of such notice, you may submit written information, views, and arguments on the proposed amendment. After considering all relevant material presented, the Regional Administrator must either notify you of any amendment required or rescind the notice. You must amend your Plan as required within 30 days after such notice, unless the Regional Administrator, for good cause, specifies another effective date. You must implement the amended Plan as soon as possible, but not later than six months after you amend your Plan, unless the Regional Administrator specifies another date.

(f) If you appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan, send the appeal to the EPA Administrator in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment under paragraph (e) of this section. You must send a complete copy of the appeal to the Regional Administrator at the time you make the appeal. The appeal must contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from you, or from any other person. The EPA Administrator may request additional information from you, or from any other person. The EPA Administrator must render a decision within 60 days of receiving the appeal and must notify you of his decision.

§ 112.5 Amendment of Spill Prevention, Control, and Countermeasure Plan by owners or operators.

If you are the owner or operator of a facility subject to this part, you must:

(a) Amend the SPCC Plan for your facility in accordance with the general requirements in §112.7, and with any specific section of this part applicable to your facility, when there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge as described in §112.1(b). Examples of changes that may require amendment of the Plan include, but are not limited to: commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacement, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures at a facility. An amendment made under this section must be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment.

(b) Notwithstanding compliance with paragraph (a) of this section, complete a review and evaluation of the SPCC Plan at least once every five years from the date your facility becomes subject to this part; or, if your facility was in operation on or before August 16, 2002, five years from the date your last review was required under this part. As a result of this review and evaluation, you must amend your SPCC Plan within six months of the review to include more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge as described in §112.1(b) from the facility. You must implement any amendment as soon as possible, but not later than six months following preparation of any amendment. You must document your completion of the review and evaluation, and must sign a statement as to whether you will amend the Plan, either at the beginning or end of the Plan or in a log or an appendix to the Plan. The following words will suffice, ''I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result.''

(c) Except as provided in §112.6, have a Professional Engineer certify any technical amendments to your Plan in accordance with §112.3(d).

[67 FR 47140, July 17, 2002, as amended at 71 FR 77291, Dec. 26, 2006; 73 FR 74301, Dec. 5, 2008; 74 FR 58809, Nov. 13, 2009]

§ 112.6 Qualified Facilities Plan Requirements.

Qualified facilities meeting the Tier I applicability criteria in §112.3(g)(1) are subject to the requirements in paragraph (a) of this section. Qualified facilities meeting the Tier II applicability criteria in §112.3(g)(2) are subject to the requirements in paragraph (b) of this section.

(a) *Tier I Qualified Facilities*—(1) *Preparation and Self-Certification of the Plan.* If you are an owner or operator of a facility that meets the Tier I qualified facility criteria in §112.3(g)(1), you must either: comply with the requirements of paragraph (a)(3) of this section; or prepare and implement a Plan meeting requirements of paragraph (b) of this section; or prepare and implement a Plan meeting the general Plan requirements in §112.7 and applicable requirements in subparts B and C, including having the Plan certified by a Professional Engineer as required under §112.3(d). If you do not follow the Appendix G template, you must prepare an equivalent Plan that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. To complete the template in Appendix G, you must certify that:

(i) You are familiar with the applicable requirements of 40 CFR part 112;

(ii) You have visited and examined the facility;

(iii) You prepared the Plan in accordance with accepted and sound industry practices and standards;

(iv) You have established procedures for required inspections and testing in accordance with industry inspection

and testing standards or recommended practices;

(v) You will fully implement the Plan;

(vi) The facility meets the qualification criteria in §112.3(g)(1);

(vii) The Plan does not deviate from any requirement of this part as allowed by §112.7(a)(2) and 112.7(d) or include measures pursuant to §112.9(c)(6) for produced water containers and any associated piping; and

(viii) The Plan and individual(s) responsible for implementing this Plan have the approval of management, and the facility owner or operator has committed the necessary resources to fully implement this Plan.

(2) *Technical Amendments.* You must certify any technical amendments to your Plan in accordance with paragraph (a)(1) of this section when there is a change in the facility design, construction, operation, or maintenance that affects its potential for a discharge as described in §112.1(b). If the facility change results in the facility no longer meeting the Tier I qualifying criteria in §112.3(g)(1) because an individual oil storage container capacity exceeds 5,000 U.S. gallons or the facility capacity exceeds 10,000 U.S. gallons in aggregate aboveground storage capacity, within six months following preparation of the amendment, you must either:

(i) Prepare and implement a Plan in accordance with §112.6(b) if you meet the Tier II qualified facility criteria in §112.3(g)(2); or

(ii) Prepare and implement a Plan in accordance with the general Plan requirements in §112.7, and applicable requirements in subparts B and C, including having the Plan certified by a Professional Engineer as required under §112.3(d).

(3) *Plan Template and Applicable Requirements.* Prepare and implement an SPCC Plan that meets the following requirements under §112.7 and in subparts B and C of this part: introductory paragraph of §§112.7, 112.7(a)(3)(i), 112.7(a)(3)(iv), 112.7(a)(3)(vi), 112.7(a)(4), 112.7(a)(5), 112.7(c), 112.7(e), 112.7(f), 112.7(g), 112.7(k), 112.8(b)(1), 112.8(b)(2), 112.8(c)(1), 112.8(c)(3), 112.8(c)(4), 112.8(c)(5), 112.8(c)(6), 112.8(c)(10), 112.8(d)(4), 112.9(b), 112.9(c)(1), 112.9(c)(2), 112.9(c)(3), 112.9(c)(4), 112.9(c)(5), 112.9(d)(1), 112.9(d)(3), 112.9(d)(4), 112.10(b), 112.10(c), 112.10(d), 112.12(b)(1), 112.12(b)(2), 112.12(c)(1), 112.12(c)(3), 112.12(c)(4), 112.12(c)(5), 112.12(c)(6), 112.12(c)(10), and 112.12(d)(4). The template in Appendix G to this part has been developed to meet the requirements of 40 CFR part 112 and, when completed and signed by the owner or operator, may be used as the SPCC Plan. Additionally, you must meet the following requirements:

(i) *Failure analysis, in lieu of the requirements in §112.7(b).* Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of discharge), include in your Plan a prediction of the direction and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

(ii) *Bulk storage container secondary containment, in lieu of the requirements in §§112.8(c)(2) and (c)(11) and 112.12(c)(2) and (c)(11).* Construct all bulk storage container installations (except mobile refuelers and other non-transportation-related tank trucks), including mobile or portable oil storage containers, so that you provide a secondary means of containment for the entire capacity of the largest single container plus additional capacity to contain precipitation. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a catchment basin or holding pond. Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b).

(iii) *Overfill prevention, in lieu of the requirements in §§112.8(c)(8) and 112.12(c)(8).* Ensure that each container is provided with a system or documented procedure to prevent overfills of the container, describe the system or procedure in the SPCC Plan and regularly test to ensure proper operation or efficacy.

(b) *Tier II Qualified Facilities*—(1) *Preparation and Self-Certification of*

Plan. If you are the owner or operator of a facility that meets the Tier II qualified facility criteria in §112.3(g)(2), you may choose to self-certify your Plan. You must certify in the Plan that:

(i) You are familiar with the requirements of this part;

(ii) You have visited and examined the facility;

(iii) The Plan has been prepared in accordance with accepted and sound industry practices and standards, and with the requirements of this part;

(iv) Procedures for required inspections and testing have been established;

(v) You will fully implement the Plan;

(vi) The facility meets the qualification criteria set forth under §112.3(g)(2);

(vii) The Plan does not deviate from any requirement of this part as allowed by §112.7(a)(2) and 112.7(d) or include measures pursuant to §112.9(c)(6) for produced water containers and any associated piping, except as provided in paragraph (b)(3) of this section; and

(viii) The Plan and individual(s) responsible for implementing the Plan have the full approval of management and the facility owner or operator has committed the necessary resources to fully implement the Plan.

(2) *Technical Amendments.* If you self-certify your Plan pursuant to paragraph (b)(1) of this section, you must certify any technical amendments to your Plan in accordance with paragraph (b)(1) of this section when there is a change in the facility design, construction, operation, or maintenance that affects its potential for a discharge as described in §112.1(b), except:

(i) If a Professional Engineer certified a portion of your Plan in accordance with paragraph (b)(4) of this section, and the technical amendment affects this portion of the Plan, you must have the amended provisions of your Plan certified by a Professional Engineer in accordance with paragraph (b)(4)(ii) of this section.

(ii) If the change is such that the facility no longer meets the Tier II qualifying criteria in §112.3(g)(2) because it exceeds 10,000 U.S. gallons in aggregate aboveground storage capacity you must, within six months following the change, prepare and implement a Plan in accordance with the general Plan requirements in §112.7 and the applicable requirements in subparts B and C of this part, including having the Plan certified by a Professional Engineer as required under §112.3(d).

(3) *Applicable Requirements.* Except as provided in this paragraph, your self-certified SPCC Plan must comply with §112.7 and the applicable requirements in subparts B and C of this part:

(i) *Environmental Equivalence.* Your Plan may not include alternate methods which provide environmental equivalence pursuant to §112.7(a)(2), unless each alternate method has been reviewed and certified in writing by a Professional Engineer, as provided in paragraph (b)(4) of this section.

(ii) *Impracticability.* Your Plan may not include any determinations that secondary containment is impracticable and provisions in lieu of secondary containment pursuant to §112.7(d), unless each such determination and alternate measure has been reviewed and certified in writing by a Professional Engineer, as provided in paragraph (b)(4) of this section.

(iii) *Produced Water Containers.* Your Plan may not include any alternative procedures for skimming produced water containers in lieu of sized secondary containment pursuant to §112.9(c)(6), unless they have been reviewed and certified in writing by a Professional Engineer, as provided in paragraph (b)(4) of this section.

(4) *Professional Engineer Certification of Portions of a Qualified Facility's Self-Certified Plan.*

(i) As described in paragraph (b)(3) of this section, the facility owner or operator may not self-certify alternative measures allowed under §112.7(a)(2) or (d), that are included in the facility's Plan. Such measures must be reviewed and certified, in writing, by a licensed Professional Engineer. For each alternative measure allowed under §112.7(a)(2), the Plan must be accompanied by a written statement by a Professional Engineer that states the reason for nonconformance and describes the alternative method and how it provides equivalent environmental protection in accordance with

§ 112.7(a)(2). For each determination of impracticability of secondary containment pursuant to § 112.7(d), the Plan must clearly explain why secondary containment measures are not practicable at this facility and provide the alternative measures required in § 112.7(d) in lieu of secondary containment. By certifying each measure allowed under § 112.7(a)(2) and (d), the Professional Engineer attests:

(A) That he is familiar with the requirements of this part;

(B) That he or his agent has visited and examined the facility; and

(C) That the alternative method of environmental equivalence in accordance with § 112.7(a)(2) or the determination of impracticability and alternative measures in accordance with § 112.7(d) is consistent with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part.

(ii) As described in paragraph (b)(3) of this section, the facility owner or operator may not self-certify measures as described in § 112.9(c)(6) for produced water containers and any associated piping. Such measures must be reviewed and certified, in writing, by a licensed Professional Engineer, in accordance with § 112.3(d)(1)(vi).

(iii) The review and certification by the Professional Engineer under this paragraph is limited to the alternative method which achieves equivalent environmental protection pursuant to § 112.7(a)(2); to the impracticability determination and measures in lieu of secondary containment pursuant to § 112.7(d); or the measures pursuant to § 112.9(c)(6) for produced water containers and any associated piping and appurtenances downstream from the container.

[73 FR 74302, Dec. 5, 2008, as amended at 74 FR 58810, Nov. 13, 2009]

§ 112.7 General requirements for Spill Prevention, Control, and Countermeasure Plans.

If you are the owner or operator of a facility subject to this part you must prepare a Plan in accordance with good engineering practices. The Plan must have the full approval of management at a level of authority to commit the necessary resources to fully implement the Plan. You must prepare the Plan in writing. If you do not follow the sequence specified in this section for the Plan, you must prepare an equivalent Plan acceptable to the Regional Administrator that meets all of the applicable requirements listed in this part, and you must supplement it with a section cross-referencing the location of requirements listed in this part and the equivalent requirements in the other prevention plan. If the Plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, you must discuss these items in separate paragraphs, and must explain separately the details of installation and operational start-up. As detailed elsewhere in this section, you must also:

(a)(1) Include a discussion of your facility's conformance with the requirements listed in this part.

(2) Comply with all applicable requirements listed in this part. Except as provided in § 112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.9(d)(3), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your

Plan, following the procedures in §112.4(d) and (e).

(3) Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as ''exempt'' underground tanks that are otherwise exempted from the requirements of this part under §112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under §112.1(d)(11). You must also address in your Plan:

(i) The type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities;

(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);

(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge;

(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);

(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and

(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of a discharge as described in §112.1(b).

(4) Unless you have submitted a response plan under §112.20, provide information and procedures in your Plan to enable a person reporting a discharge as described in §112.1(b) to relate information on the exact address or location and phone number of the facility; the date and time of the discharge, the type of material discharged; estimates of the total quantity discharged; estimates of the quantity discharged as described in §112.1(b); the source of the discharge; a description of all affected media; the cause of the discharge; any damages or injuries caused by the discharge; actions being used to stop, remove, and mitigate the effects of the discharge; whether an evacuation may be needed; and, the names of individuals and/or organizations who have also been contacted.

(5) Unless you have submitted a response plan under §112.20, organize portions of the Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency, and include appropriate supporting material as appendices.

(b) Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.

(c) Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in §112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in §112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either

active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:

(1) For onshore facilities:

(i) Dikes, berms, or retaining walls sufficiently impervious to contain oil;

(ii) Curbing or drip pans;

(iii) Sumps and collection systems;

(iv) Culverting, gutters, or other drainage systems;

(v) Weirs, booms, or other barriers;

(vi) Spill diversion ponds;

(vii) Retention ponds; or

(viii) Sorbent materials.

(2) For offshore facilities:

(i) Curbing or drip pans; or

(ii) Sumps and collection systems.

(d) Provided your Plan is certified by a licensed Professional Engineer under §112.3(d), or, in the case of a qualified facility that meets the criteria in §112.3(g), the relevant sections of your Plan are certified by a licensed Professional Engineer under §112.6(d), if you determine that the installation of any of the structures or pieces of equipment listed in paragraphs (c) and (h)(1) of this section, and §§112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11) to prevent a discharge as described in §112.1(b) from any onshore or offshore facility is not practicable, you must clearly explain in your Plan why such measures are not practicable; for bulk storage containers, conduct both periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping; and, unless you have submitted a response plan under §112.20, provide in your Plan the following:

(1) An oil spill contingency plan following the provisions of part 109 of this chapter.

(2) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

(e) *Inspections, tests, and records.* Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

(f) *Personnel, training, and discharge prevention procedures.* (1) At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan.

(2) Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.

(3) Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in §112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.

(g) *Security (excluding oil production facilities).* Describe in your Plan how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.

(h) *Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).*

(1) Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.

(2) Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks or vehicle

brake interlock system in the area adjacent to a loading/unloading rack, to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.

(3) Prior to filling and departure of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.

(i) If a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container for risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.

(j) In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

(k) *Qualified Oil-filled Operational Equipment.* The owner or operator of a facility with oil-filled operational equipment that meets the qualification criteria in paragraph (k)(1) of this subsection may choose to implement for this qualified oil-filled operational equipment the alternate requirements as described in paragraph (k)(2) of this sub-section in lieu of general secondary containment required in paragraph (c) of this section.

(1) *Qualification Criteria—Reportable Discharge History:* The owner or operator of a facility that has had no single discharge as described in §112.1(b) from any oil-filled operational equipment exceeding 1,000 U.S. gallons or no two discharges as described in §112.1(b) from any oil-filled operational equipment each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan certification date, or since becoming subject to this part if the facility has been in operation for less than three years (other than oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war or terrorism); and

(2) *Alternative Requirements to General Secondary Containment.* If secondary containment is not provided for qualified oil-filled operational equipment pursuant to paragraph (c) of this section, the owner or operator of a facility with qualified oil-filled operational equipment must:

(i) Establish and document the facility procedures for inspections or a monitoring program to detect equipment failure and/or a discharge; and

(ii) Unless you have submitted a response plan under §112.20, provide in your Plan the following:

(A) An oil spill contingency plan following the provisions of part 109 of this chapter.

(B) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful.

[67 FR 47140, July 17, 2002, as amended at 71 FR 77292, Dec. 26, 2006; 73 FR 74303, Dec. 5, 2008; 74 FR 58810, Nov. 13, 2009]

Subpart B—Requirements for Petroleum Oils and Non-Petroleum Oils, Except Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and Vegetable Oils (Including Oils from Seeds, Nuts, Fruits, and Kernels)

SOURCE: 67 FR 47146, July 17, 2002, unless otherwise noted.

§112.8 Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities).

If you are the owner or operator of an onshore facility (excluding a production facility), you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the

drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two ''lift'' pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in §112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) Test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing

and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).

(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping

at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

[67 FR 47146, July 17, 2002, as amended at 71 FR 77293, Dec. 26, 2006; 73 FR 74304, Dec. 5, 2008]

§ 112.9 Spill Prevention, Control, and Countermeasure Plan Requirements for onshore oil production facilities (excluding drilling and workover facilities).

If you are the owner or operator of an onshore oil production facility (excluding a drilling or workover facility), you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed under this section.

(b) *Oil production facility drainage.* (1) At tank batteries and separation and treating areas where there is a reasonable possibility of a discharge as described in §112.1(b), close and seal at all times drains of dikes or drains of equivalent measures required under §112.7(c)(1), except when draining uncontaminated rainwater. Prior to drainage, you must inspect the diked area and take action as provided in §112.8(c)(3)(ii), (iii), and (iv). You must remove accumulated oil on the rainwater and return it to storage or dispose of it in accordance with legally approved methods.

(2) Inspect at regularly scheduled intervals field drainage systems (such as drainage ditches or road ditches), and oil traps, sumps, or skimmers, for an accumulation of oil that may have resulted from any small discharge. You must promptly remove any accumulations of oil.

(c) *Oil production facility bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(2) Except as described in paragraph (c)(5) of this section for flow-through process vessels and paragraph (c)(6) of this section for produced water containers and any associated piping and appurtenances downstream from the container, construct all tank battery, separation, and treating facility installations, so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must safely confine drainage from undiked areas in a catchment basin or holding pond.

(3) Except as described in paragraph (c)(5) of this section for flow-through process vessels and paragraph (c)(6) of this section for produced water containers and any associated piping and appurtenances downstream from the container, periodically and upon a regular schedule visually inspect each container of oil for deterioration and maintenance needs, including the foundation and support of each container that is on or above the surface of the ground.

(4) Engineer or update new and old tank battery installations in accordance with good engineering practice to prevent discharges. You must provide at least one of the following:

(i) Container capacity adequate to assure that a container will not overfill if a pumper/gauger is delayed in making regularly scheduled rounds.

(ii) Overflow equalizing lines between containers so that a full container can overflow to an adjacent container.

(iii) Vacuum protection adequate to prevent container collapse during a pipeline run or other transfer of oil from the container.

(iv) High level sensors to generate and transmit an alarm signal to the computer where the facility is subject to a computer production control system.

(5) *Flow-through process vessels.* The owner or operator of a facility with flow-through process vessels may choose to implement the alternate requirements as described below in lieu of sized secondary containment required in paragraphs (c)(2) and (c)(3) of this section.

(i) Periodically and on a regular schedule visually inspect and/or test flow-through process vessels and associated components (such as dump valves) for leaks, corrosion, or other

conditions that could lead to a discharge as described in §112.1(b).

(ii) Take corrective action or make repairs to flow-through process vessels and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge.

(iii) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with flow-through process vessels.

(iv) If your facility discharges more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or discharges more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b) within any twelve month period, from flow-through process vessels (excluding discharges that are the result of natural disasters, acts of war, or terrorism) then you must, within six months from the time the facility becomes subject to this paragraph, ensure that all flow-through process vessels subject to this subpart comply with §112.9(c)(2) and (c)(3).

(6) *Produced water containers.* For each produced water container, comply with §112.9(c)(1) and (c)(4); and §112.9(c)(2) and (c)(3), or comply with the provisions of the following paragraphs (c)(6)(i) through (v):

(i) Implement, on a regular schedule, a procedure for each produced water container that is designed to separate the free-phase oil that accumulates on the surface of the produced water. Include in the Plan a description of the procedures, frequency, amount of free-phase oil expected to be maintained inside the container, and a Professional Engineer certification in accordance with §112.3(d)(1)(vi). Maintain records of such events in accordance with §112.7(e). Records kept under usual and customary business practices will suffice for purposes of this paragraph. If this procedure is not implemented as described in the Plan or no records are maintained, then you must comply with §112.9(c)(2) and (c)(3).

(ii) On a regular schedule, visually inspect and/or test the produced water container and associated piping for leaks, corrosion, or other conditions that could lead to a discharge as described in §112.1(b) in accordance with good engineering practice.

(iii) Take corrective action or make repairs to the produced water container and any associated piping as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge.

(iv) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with the produced water container.

(v) If your facility discharges more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or discharges more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b) within any twelve month period from a produced water container subject to this subpart (excluding discharges that are the result of natural disasters, acts of war, or terrorism) then you must, within six months from the time the facility becomes subject to this paragraph, ensure that all produced water containers subject to this subpart comply with §112.9(c)(2) and (c)(3).

(d) *Facility transfer operations, oil production facility.* (1) Periodically and upon a regular schedule inspect all aboveground valves and piping associated with transfer operations for the general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items.

(2) Inspect saltwater (oil field brine) disposal facilities often, particularly following a sudden change in atmospheric temperature, to detect possible system upsets capable of causing a discharge.

(3) For flowlines and intra-facility gathering lines that are not provided with secondary containment in accordance with §112.7(c), unless you have submitted a response plan under §112.20, provide in your Plan the following:

(i) An oil spill contingency plan following the provisions of part 109 of this chapter.

(ii) A written commitment of manpower, equipment, and materials required to expeditiously control and remove any quantity of oil discharged that might be harmful.

(4) Prepare and implement a written program of flowline/intra-facility gathering line maintenance. The maintenance program must address your procedures to:

(i) Ensure that flowlines and intra-facility gathering lines and associated valves and equipment are compatible with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment.

(ii) Visually inspect and/or test flowlines and intra-facility gathering lines and associated appurtenances on a periodic and regular schedule for leaks, oil discharges, corrosion, or other conditions that could lead to a discharge as described in §112.1(b). For flowlines and intra-facility gathering lines that are not provided with secondary containment in accordance with §112.7(c), the frequency and type of testing must allow for the implementation of a contingency plan as described under part 109 of this chapter.

(iii) Take corrective action or make repairs to any flowlines and intra-facility gathering lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge.

(iv) Promptly remove or initiate actions to stabilize and remediate any accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances.

[73 FR, 74304, Dec. 5, 2008, as amended at 74 FR 58810, Nov. 13, 2009]

§ 112.10 Spill Prevention, Control, and Countermeasure Plan requirements for onshore oil drilling and workover facilities.

If you are the owner or operator of an onshore oil drilling and workover facility, you must:

(a) Meet the general requirements listed under §112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Position or locate mobile drilling or workover equipment so as to prevent a discharge as described in §112.1(b).

(c) Provide catchment basins or diversion structures to intercept and contain discharges of fuel, crude oil, or oily drilling fluids.

(d) Install a blowout prevention (BOP) assembly and well control system before drilling below any casing string or during workover operations. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while that BOP assembly and well control system are on the well.

§ 112.11 Spill Prevention, Control, and Countermeasure Plan requirements for offshore oil drilling, production, or workover facilities.

If you are the owner or operator of an offshore oil drilling, production, or workover facility, you must:

(a) Meet the general requirements listed under §112.7, and also meet the specific discharge prevention and containment procedures listed under this section.

(b) Use oil drainage collection equipment to prevent and control small oil discharges around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and associated equipment. You must control and direct facility drains toward a central collection sump to prevent the facility from having a discharge as described in §112.1(b). Where drains and sumps are not practicable, you must remove oil contained in collection equipment as often as necessary to prevent overflow.

(c) For facilities employing a sump system, provide adequately sized sump and drains and make available a spare pump to remove liquid from the sump and assure that oil does not escape. You must employ a regularly scheduled preventive maintenance inspection and testing program to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(d) At facilities with areas where separators and treaters are equipped with dump valves which predominantly fail in the closed position and where pollution risk is high, specially equip the facility to prevent the discharge of oil.

You must prevent the discharge of oil by:

(1) Extending the flare line to a diked area if the separator is near shore;

(2) Equipping the separator with a high liquid level sensor that will automatically shut in wells producing to the separator; or

(3) Installing parallel redundant dump valves.

(e) Equip atmospheric storage or surge containers with high liquid level sensing devices that activate an alarm or control the flow, or otherwise prevent discharges.

(f) Equip pressure containers with high and low pressure sensing devices that activate an alarm or control the flow.

(g) Equip containers with suitable corrosion protection.

(h) Prepare and maintain at the facility a written procedure within the Plan for inspecting and testing pollution prevention equipment and systems.

(i) Conduct testing and inspection of the pollution prevention equipment and systems at the facility on a scheduled periodic basis, commensurate with the complexity, conditions, and circumstances of the facility and any other appropriate regulations. You must use simulated discharges for testing and inspecting human and equipment pollution control and countermeasure systems.

(j) Describe in detailed records surface and subsurface well shut-in valves and devices in use at the facility for each well sufficiently to determine their method of activation or control, such as pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms.

(k) Install a BOP assembly and well control system during workover operations and before drilling below any casing string. The BOP assembly and well control system must be capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well.

(l) Equip all manifolds (headers) with check valves on individual flowlines.

(m) Equip the flowline with a high pressure sensing device and shut-in valve at the wellhead if the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves. Alternatively you may provide a pressure relief system for flowlines.

(n) Protect all piping appurtenant to the facility from corrosion, such as with protective coatings or cathodic protection.

(o) Adequately protect sub-marine piping appurtenant to the facility against environmental stresses and other activities such as fishing operations.

(p) Maintain sub-marine piping appurtenant to the facility in good operating condition at all times. You must periodically and according to a schedule inspect or test such piping for failures. You must document and keep a record of such inspections or tests at the facility.

Subpart C—Requirements for Animal Fats and Oils and Greases, and Fish and Marine Mammal Oils; and for Vegetable Oils, including Oils from Seeds, Nuts, Fruits, and Kernels.

SOURCE: 67 FR 57149, July 17, 2002, unless otherwise noted.

§ 112.12 Spill Prevention, Control, and Countermeasure Plan requirements.

If you are the owner or operator of an onshore facility, you must:

(a) Meet the general requirements for the Plan listed under §112.7, and the specific discharge prevention and containment procedures listed in this section.

(b) *Facility drainage.* (1) Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.

(2) Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater, subject to the requirements of paragraphs (c)(3)(ii), (iii), and (iv) of this section.

(3) Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

(4) If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

(5) Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two ''lift'' pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in §112.1(b) in case there is an equipment failure or human error at the facility.

(c) *Bulk storage containers.* (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.

(2) Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.

(3) Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you:

(i) Normally keep the bypass valve sealed closed.

(ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in §112.1(b).

(iii) Open the bypass valve and reseal it following drainage under responsible supervision; and

(iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§122.41(j)(2) and 122.41(m)(3) of this chapter.

(4) Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

(5) Not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

(6) *Bulk storage container inspections.*

(i) Except for containers that meet the criteria provided in paragraph (c)(6)(ii) of this section, test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity

tests include, but are not limited to: Visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.

(ii) For bulk storage containers that are subject to 21 CFR part 110, are elevated, constructed of austenitic stainless steel, have no external insulation, and are shop-fabricated, conduct formal visual inspection on a regular schedule. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. You must determine and document in the Plan the appropriate qualifications for personnel performing tests and inspections. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph (c)(6).

(7) Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

(8) Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

(i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

(ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level.

(iii) Direct audible or code signal communication between the container gauger and the pumping station.

(iv) A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

(v) You must regularly test liquid level sensing devices to ensure proper operation.

(9) Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in §112.1(b).

(10) Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

[67 FR 57149, July 17, 2002, as amended at 71 FR 77293, Dec. 26, 2006; 73 FR 74305, Dec. 5, 2008]

§§ 112.13–112.15 [Reserved]

Subpart D—Response Requirements

§ 112.20 Facility response plans.

(a) The owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response plan to the Regional Administrator, according to the following provisions:

(1) For the owner or operator of a facility in operation on or before February 18, 1993 who is required to prepare and submit a response plan under 33 U.S.C. 1321(j)(5), the Oil Pollution Act of 1990 (Pub. L. 101–380, 33 U.S.C. 2701 *et seq.*) requires the submission of a response plan that satisfies the requirements of 33 U.S.C. 1321(j)(5) no later than February 18, 1993.

(i) The owner or operator of an existing facility that was in operation on or before February 18, 1993 who submitted a response plan by February 18, 1993 shall revise the response plan to satisfy the requirements of this section and resubmit the response plan or updated portions of the response plan to the Regional Administrator by February 18, 1995.

(ii) The owner or operator of an existing facility in operation on or before February 18, 1993 who failed to submit a response plan by February 18, 1993 shall prepare and submit a response plan that satisfies the requirements of this section to the Regional Administrator before August 30, 1994.

(2) The owner or operator of a facility in operation on or after August 30, 1994 that satisfies the criteria in paragraph (f)(1) of this section or that is notified by the Regional Administrator pursuant to paragraph (b) of this section shall prepare and submit a facility response plan that satisfies the requirements of this section to the Regional Administrator.

(i) For a facility that commenced operations after February 18, 1993 but prior to August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan or updated portions of the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator prior to August 30, 1994.

(ii) For a newly constructed facility that commences operation after August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator prior to the start of operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iii) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of a planned change in design, construction, operation, or maintenance that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator before the portion of the facility undergoing

must promptly remove any accumulations of oil in diked areas.

(11) Position or locate mobile or portable oil storage containers to prevent a discharge as described in §112.1(b). Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.

(d) *Facility transfer operations, pumping, and facility process.* (1) Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect it for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.

(2) Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

(3) Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

(4) Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

(5) Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.

[67 FR 57149, July 17, 2002, as amended at 71 FR 77293, Dec. 26, 2006; 73 FR 74305, Dec. 5, 2008]

§§ 112.13–112.15 [Reserved]

Subpart D—Response Requirements

§ 112.20 Facility response plans.

(a) The owner or operator of any non-transportation-related onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines shall prepare and submit a facility response plan to the Regional Administrator, according to the following provisions:

(1) For the owner or operator of a facility in operation on or before February 18, 1993 who is required to prepare and submit a response plan under 33 U.S.C. 1321(j)(5), the Oil Pollution Act of 1990 (Pub. L. 101–380, 33 U.S.C. 2701 *et seq.*) requires the submission of a response plan that satisfies the requirements of 33 U.S.C. 1321(j)(5) no later than February 18, 1993.

(i) The owner or operator of an existing facility that was in operation on or before February 18, 1993 who submitted a response plan by February 18, 1993 shall revise the response plan to satisfy the requirements of this section and resubmit the response plan or updated portions of the response plan to the Regional Administrator by February 18, 1995.

(ii) The owner or operator of an existing facility in operation on or before February 18, 1993 who failed to submit a response plan by February 18, 1993 shall prepare and submit a response plan that satisfies the requirements of this section to the Regional Administrator before August 30, 1994.

(2) The owner or operator of a facility in operation on or after August 30, 1994 that satisfies the criteria in paragraph (f)(1) of this section or that is notified by the Regional Administrator pursuant to paragraph (b) of this section shall prepare and submit a facility response plan that satisfies the requirements of this section to the Regional Administrator.

(i) For a facility that commenced operations after February 18, 1993 but prior to August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1)

of this section, the owner or operator shall submit the response plan or updated portions of the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator prior to August 30, 1994.

(ii) For a newly constructed facility that commences operation after August 30, 1994, and is required to prepare and submit a response plan based on the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator prior to the start of operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iii) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of a planned change in design, construction, operation, or maintenance that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator before the portion of the facility undergoing change commences operations (adjustments to the response plan to reflect changes that occur at the facility during the start-up phase of operations must be submitted to the Regional Administrator after an operational trial period of 60 days).

(iv) For a facility required to prepare and submit a response plan after August 30, 1994, as a result of an unplanned event or change in facility characteristics that renders the facility subject to the criteria in paragraph (f)(1) of this section, the owner or operator shall submit the response plan, along with a completed version of the response plan cover sheet contained in appendix F to this part, to the Regional Administrator within six months of the unplanned event or change.

(3) In the event the owner or operator of a facility that is required to prepare and submit a response plan uses an alternative formula that is comparable to one contained in appendix C to this part to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the response plan cover sheet contained in appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula.

(4) *Preparation and submission of response plans—Animal fat and vegetable oil facilities.* The owner or operator of any non-transportation-related facility that handles, stores, or transports animal fats and vegetable oils must prepare and submit a facility response plan as follows:

(i) *Facilities with approved plans.* The owner or operator of a facility with a facility response plan that has been approved under paragraph (c) of this section by July 31, 2000 need not prepare or submit a revised plan except as otherwise required by paragraphs (b), (c), or (d) of this section.

(ii) *Facilities with plans that have been submitted to the Regional Administrator.* Except for facilities with approved plans as provided in paragraph (a)(4)(i) of this section, the owner or operator of a facility that has submitted a response plan to the Regional Administrator prior to July 31, 2000 must review the plan to determine if it meets or exceeds the applicable provisions of this part. An owner or operator need not prepare or submit a new plan if the existing plan meets or exceeds the applicable provisions of this part. If the plan does not meet or exceed the applicable provisions of this part, the owner or operator must prepare and submit a new plan by September 28, 2000.

(iii) *Newly regulated facilities.* The owner or operator of a newly constructed facility that commences operation after July 31, 2000 must prepare and submit a plan to the Regional Administrator in accordance with paragraph (a)(2)(ii) of this section. The plan must meet or exceed the applicable provisions of this part. The owner or operator of an existing facility that must prepare and submit a plan after July 31, 2000 as a result of a planned or

unplanned change in facility characteristics that causes the facility to become regulated under paragraph (f)(1) of this section, must prepare and submit a plan to the Regional Administrator in accordance with paragraph (a)(2)(iii) or (iv) of this section, as appropriate. The plan must meet or exceed the applicable provisions of this part.

(iv) *Facilities amending existing plans.* The owner or operator of a facility submitting an amended plan in accordance with paragraph (d) of this section after July 31, 2000, including plans that had been previously approved, must also review the plan to determine if it meets or exceeds the applicable provisions of this part. If the plan does not meet or exceed the applicable provisions of this part, the owner or operator must revise and resubmit revised portions of an amended plan to the Regional Administrator in accordance with paragraph (d) of this section, as appropriate. The plan must meet or exceed the applicable provisions of this part.

(b)(1) The Regional Administrator may at any time require the owner or operator of any non-transportation-related onshore facility to prepare and submit a facility response plan under this section after considering the factors in paragraph (f)(2) of this section. If such a determination is made, the Regional Administrator shall notify the facility owner or operator in writing and shall provide a basis for the determination. If the Regional Administrator notifies the owner or operator in writing of the requirement to prepare and submit a response plan under this section, the owner or operator of the facility shall submit the response plan to the Regional Administrator within six months of receipt of such written notification.

(2) The Regional Administrator shall review plans submitted by such facilities to determine whether the facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(c) The Regional Administrator shall determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, based on the factors in paragraph (f)(3) of this section. If such a determination is made, the Regional Administrator shall notify the owner or operator of the facility in writing and:

(1) Promptly review the facility response plan;

(2) Require amendments to any response plan that does not meet the requirements of this section;

(3) Approve any response plan that meets the requirements of this section; and

(4) Review each response plan periodically thereafter on a schedule established by the Regional Administrator provided that the period between plan reviews does not exceed five years.

(d)(1) The owner or operator of a facility for which a response plan is required under this part shall revise and resubmit revised portions of the response plan within 60 days of each facility change that materially may affect the response to a worst case discharge, including:

(i) A change in the facility's configuration that materially alters the information included in the response plan;

(ii) A change in the type of oil handled, stored, or transferred that materially alters the required response resources;

(iii) A material change in capabilities of the oil spill removal organization(s) that provide equipment and personnel to respond to discharges of oil described in paragraph (h)(5) of this section;

(iv) A material change in the facility's spill prevention and response equipment or emergency response procedures; and

(v) Any other changes that materially affect the implementation of the response plan.

(2) Except as provided in paragraph (d)(1) of this section, amendments to personnel and telephone number lists included in the response plan and a change in the oil spill removal organization(s) that does not result in a material change in support capabilities do not require approval by the Regional

Administrator. Facility owners or operators shall provide a copy of such changes to the Regional Administrator as the revisions occur.

(3) The owner or operator of a facility that submits changes to a response plan as provided in paragraph (d)(1) or (d)(2) of this section shall provide the EPA-issued facility identification number (where one has been assigned) with the changes.

(4) The Regional Administrator shall review for approval changes to a response plan submitted pursuant to paragraph (d)(1) of this section for a facility determined pursuant to paragraph (f)(3) of this section to have the potential to cause significant and substantial harm to the environment.

(e) If the owner or operator of a facility determines pursuant to paragraph (a)(2) of this section that the facility could not, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the owner or operator shall complete and maintain at the facility the certification form contained in appendix C to this part and, in the event an alternative formula that is comparable to one contained in appendix C to this part is used to evaluate the criterion in paragraph (f)(1)(ii)(B) or (f)(1)(ii)(C) of this section, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

(f)(1) A facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (a)(2) of this section, if it meets any of the following criteria applied in accordance with the flowchart contained in attachment C-I to appendix C to this part:

(i) The facility transfers oil over water to or from vessels and has a total oil storage capacity greater than or equal to 42,000 gallons; or

(ii) The facility's total oil storage capacity is greater than or equal to 1 million gallons, and one of the following is true:

(A) The facility does not have secondary containment for each aboveground storage area sufficiently large to contain the capacity of the largest aboveground oil storage tank within each storage area plus sufficient freeboard to allow for precipitation;

(B) The facility is located at a distance (as calculated using the appropriate formula in appendix C to this part or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III of the ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan prepared pursuant to section 311(j)(4) of the Clean Water Act;

(C) The facility is located at a distance (as calculated using the appropriate formula in appendix C to this part or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake; or

(D) The facility has had a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years.

(2)(i) To determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines pursuant to paragraph (b) of this section, the Regional Administrator shall consider the following:

(A) Type of transfer operation;

(B) Oil storage capacity;

(C) Lack of secondary containment;

(D) Proximity to fish and wildlife and sensitive environments and other areas determined by the Regional Administrator to possess ecological value;

(E) Proximity to drinking water intakes;

(F) Spill history; and

(G) Other site-specific characteristics and environmental factors that the Regional Administrator determines to be

relevant to protecting the environment from harm by discharges of oil into or on navigable waters or adjoining shorelines.

(ii) Any person, including a member of the public or any representative from a Federal, State, or local agency who believes that a facility subject to this section could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines may petition the Regional Administrator to determine whether the facility meets the criteria in paragraph (f)(2)(i) of this section. Such petition shall include a discussion of how the factors in paragraph (f)(2)(i) of this section apply to the facility in question. The RA shall consider such petitions and respond in an appropriate amount of time.

(3) To determine whether a facility could, because of its location, reasonably be expected to cause significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, the Regional Administrator may consider the factors in paragraph (f)(2) of this section as well as the following:

(i) Frequency of past discharges;

(ii) Proximity to navigable waters;

(iii) Age of oil storage tanks; and

(iv) Other facility-specific and Region-specific information, including local impacts on public health.

(g)(1) All facility response plans shall be consistent with the requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (40 CFR part 300) and applicable Area Contingency Plans prepared pursuant to section 311(j)(4) of the Clean Water Act. The facility response plan should be coordinated with the local emergency response plan developed by the local emergency planning committee under section 303 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 11001 et seq.). Upon request, the owner or operator should provide a copy of the facility response plan to the local emergency planning committee or State emergency response commission.

(2) The owner or operator shall review relevant portions of the National Oil and Hazardous Substances Pollution Contingency Plan and applicable Area Contingency Plan annually and, if necessary, revise the facility response plan to ensure consistency with these plans.

(3) The owner or operator shall review and update the facility response plan periodically to reflect changes at the facility.

(h) A response plan shall follow the format of the model facility-specific response plan included in appendix F to this part, unless you have prepared an equivalent response plan acceptable to the Regional Administrator to meet State or other Federal requirements. A response plan that does not follow the specified format in appendix F to this part shall have an emergency response action plan as specified in paragraphs (h)(1) of this section and be supplemented with a cross-reference section to identify the location of the elements listed in paragraphs (h)(2) through (h)(10) of this section. To meet the requirements of this part, a response plan shall address the following elements, as further described in appendix F to this part:

(1) *Emergency response action plan.* The response plan shall include an emergency response action plan in the format specified in paragraphs (h)(1)(i) through (viii) of this section that is maintained in the front of the response plan, or as a separate document accompanying the response plan, and that includes the following information:

(i) The identity and telephone number of a qualified individual having full authority, including contracting authority, to implement removal actions;

(ii) The identity of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal officials and the persons providing response personnel and equipment can be ensured;

(iii) A description of information to pass to response personnel in the event of a reportable discharge;

(iv) A description of the facility's response equipment and its location;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(vii) A description of immediate measures to secure the source of the discharge, and to provide adequate containment and drainage of discharged oil; and

(viii) A diagram of the facility.

(2) *Facility information.* The response plan shall identify and discuss the location and type of the facility, the identity and tenure of the present owner and operator, and the identity of the qualified individual identified in paragraph (h)(1) of this section.

(3) *Information about emergency response.* The response plan shall include:

(i) The identity of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge and other discharges of oil described in paragraph (h)(5) of this section, and to mitigate or prevent a substantial threat of a worst case discharge (To identify response resources to meet the facility response plan requirements of this section, owners or operators shall follow Appendix E to this part or, where not appropriate, shall clearly demonstrate in the response plan why use of Appendix E of this part is not appropriate at the facility and make comparable arrangements for response resources);

(ii) Evidence of contracts or other approved means for ensuring the availability of such personnel and equipment;

(iii) The identity and the telephone number of individuals or organizations to be contacted in the event of a discharge so that immediate communications between the qualified individual identified in paragraph (h)(1) of this section and the appropriate Federal official and the persons providing response personnel and equipment can be ensured;

(iv) A description of information to pass to response personnel in the event of a reportable discharge;

(v) A description of response personnel capabilities, including the duties of persons at the facility during a response action and their response times and qualifications;

(vi) A description of the facility's response equipment, the location of the equipment, and equipment testing;

(vii) Plans for evacuation of the facility and a reference to community evacuation plans, as appropriate;

(viii) A diagram of evacuation routes; and

(ix) A description of the duties of the qualified individual identified in paragraph (h)(1) of this section, that include:

(A) Activate internal alarms and hazard communication systems to notify all facility personnel;

(B) Notify all response personnel, as needed;

(C) Identify the character, exact source, amount, and extent of the release, as well as the other items needed for notification;

(D) Notify and provide necessary information to the appropriate Federal, State, and local authorities with designated response roles, including the National Response Center, State Emergency Response Commission, and Local Emergency Planning Committee;

(E) Assess the interaction of the discharged substance with water and/or other substances stored at the facility and notify response personnel at the scene of that assessment;

(F) Assess the possible hazards to human health and the environment due to the release. This assessment must consider both the direct and indirect effects of the release (i.e., the effects of any toxic, irritating, or asphyxiating gases that may be generated, or the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat-induced explosion);

(G) Assess and implement prompt removal actions to contain and remove the substance released;

(H) Coordinate rescue and response actions as previously arranged with all response personnel;

(I) Use authority to immediately access company funding to initiate cleanup activities; and

(J) Direct cleanup activities until properly relieved of this responsibility.

(4) *Hazard evaluation.* The response plan shall discuss the facility's known or reasonably identifiable history of discharges reportable under 40 CFR part 110 for the entire life of the facility and shall identify areas within the facility where discharges could occur and what the potential effects of the discharges would be on the affected environment. To assess the range of areas potentially affected, owners or operators shall, where appropriate, consider the distance calculated in paragraph (f)(1)(ii) of this section to determine whether a facility could, because of its location, reasonably be expected to cause substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines.

(5) *Response planning levels.* The response plan shall include discussion of specific planning scenarios for:

(i) A worst case discharge, as calculated using the appropriate worksheet in appendix D to this part. In cases where the Regional Administrator determines that the worst case discharge volume calculated by the facility is not appropriate, the Regional Administrator may specify the worst case discharge amount to be used for response planning at the facility. For complexes, the worst case planning quantity shall be the larger of the amounts calculated for each component of the facility;

(ii) A discharge of 2,100 gallons or less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility; and

(iii) A discharge greater than 2,100 gallons and less than or equal to 36,000 gallons or 10 percent of the capacity of the largest tank at the facility, whichever is less, provided that this amount is less than the worst case discharge amount. For complexes, this planning quantity shall be the larger of the amounts calculated for each component of the facility.

(6) *Discharge detection systems.* The response plan shall describe the procedures and equipment used to detect discharges.

(7) *Plan implementation.* The response plan shall describe:

(i) Response actions to be carried out by facility personnel or contracted personnel under the response plan to ensure the safety of the facility and to mitigate or prevent discharges described in paragraph (h)(5) of this section or the substantial threat of such discharges;

(ii) A description of the equipment to be used for each scenario;

(iii) Plans to dispose of contaminated cleanup materials; and

(iv) Measures to provide adequate containment and drainage of discharged oil.

(8) *Self-inspection, drills/exercises, and response training.* The response plan shall include:

(i) A checklist and record of inspections for tanks, secondary containment, and response equipment;

(ii) A description of the drill/exercise program to be carried out under the response plan as described in § 112.21;

(iii) A description of the training program to be carried out under the response plan as described in § 112.21; and

(iv) Logs of discharge prevention meetings, training sessions, and drills/exercises. These logs may be maintained as an annex to the response plan.

(9) *Diagrams.* The response plan shall include site plan and drainage plan diagrams.

(10) *Security systems.* The response plan shall include a description of facility security systems.

(11) *Response plan cover sheet.* The response plan shall include a completed response plan cover sheet provided in section 2.0 of appendix F to this part.

(i)(1) In the event the owner or operator of a facility does not agree with the Regional Administrator's determination that the facility could, because of its location, reasonably be expected to cause substantial harm or significant and substantial harm to the environment by discharging oil into or on the navigable waters or adjoining shorelines, or that amendments to the facility response plan are necessary prior to approval, such as changes to the worst case discharge planning volume, the owner or operator may submit a request for reconsideration to

the Regional Administrator and provide additional information and data in writing to support the request. The request and accompanying information must be submitted to the Regional Administrator within 60 days of receipt of notice of the Regional Administrator's original decision. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(2) In the event the owner or operator of a facility believes a change in the facility's classification status is warranted because of an unplanned event or change in the facility's characteristics (i.e., substantial harm or significant and substantial harm), the owner or operator may submit a request for reconsideration to the Regional Administrator and provide additional information and data in writing to support the request. The Regional Administrator shall consider the request and render a decision as rapidly as practicable.

(3) After a request for reconsideration under paragraph (i)(1) or (i)(2) of this section has been denied by the Regional Administrator, an owner or operator may appeal a determination made by the Regional Administrator. The appeal shall be made to the EPA Administrator and shall be made in writing within 60 days of receipt of the decision from the Regional Administrator that the request for reconsideration was denied. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It also may contain additional information from the owner or operator, or from any other person. The EPA Administrator may request additional information from the owner or operator, or from any other person. The EPA Administrator shall render a decision as rapidly as practicable and shall notify the owner or operator of the decision.

[59 FR 34098, July 1, 1994, as amended at 65 FR 40798, June 30, 2000; 66 FR 34560, June 29, 2001; 67 FR 47151, July 17, 2002]

§ 112.21 Facility response training and drills/exercises.

(a) The owner or operator of any facility required to prepare a facility response plan under § 112.20 shall develop and implement a facility response training program and a drill/exercise program that satisfy the requirements of this section. The owner or operator shall describe the programs in the response plan as provided in § 112.20(h)(8).

(b) The facility owner or operator shall develop a facility response training program to train those personnel involved in oil spill response activities. It is recommended that the training program be based on the USCG's Training Elements for Oil Spill Response, as applicable to facility operations. An alternative program can also be acceptable subject to approval by the Regional Administrator.

(1) The owner or operator shall be responsible for the proper instruction of facility personnel in the procedures to respond to discharges of oil and in applicable oil spill response laws, rules, and regulations.

(2) Training shall be functional in nature according to job tasks for both supervisory and non-supervisory operational personnel.

(3) Trainers shall develop specific lesson plans on subject areas relevant to facility personnel involved in oil spill response and cleanup.

(c) The facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. A program that follows the National Preparedness for Response Exercise Program (PREP) (see appendix E to this part, section 13, for availability) will be deemed satisfactory for purposes of this section. An alternative program can also be acceptable subject to approval by the Regional Administrator.

[59 FR 34101, July 1, 1994, as amended at 65 FR 40798, June 30, 2000]

APPENDIX A TO PART 112—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) *Non-transportation-related onshore and offshore facilities* means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) *Transportation-related onshore and offshore facilities* means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a non-transportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within

the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

APPENDIX B TO PART 112—MEMORANDUM OF UNDERSTANDING AMONG THE SECRETARY OF THE INTERIOR, SECRETARY OF TRANSPORTATION, AND ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

PURPOSE

This Memorandum of Understanding (MOU) establishes the jurisdictional responsibilities for offshore facilities, including pipelines, pursuant to section 311 (j)(1)(c), (j)(5), and (j)(6)(A) of the Clean Water Act (CWA), as amended by the Oil Pollution Act of 1990 (Public Law 101–380). The Secretary of the Department of the Interior (DOI), Secretary of the Department of Transportation (DOT), and Administrator of the Environmental Protection Agency (EPA) agree to the division of responsibilities set forth below for spill prevention and control, response planning, and equipment inspection activities pursuant to those provisions.

BACKGROUND

Executive Order (E.O.) 12777 (56 FR 54757) delegates to DOI, DOT, and EPA various responsibilities identified in section 311(j) of the CWA. Sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 assigned to DOI spill prevention and control, contingency planning, and equipment inspection activities associated with offshore facilities. Section 311(a)(11) defines the term ''offshore facility'' to include facilities of any kind located in, on, or under navigable waters of the United States. By using this definition, the traditional DOI role of regulating facilities on the Outer Continental Shelf is expanded by E.O. 12777 to include inland lakes, rivers, streams, and any other inland waters.

RESPONSIBILITIES

Pursuant to section 2(i) of E.O. 12777, DOI redelegates, and EPA and DOT agree to assume, the functions vested in DOI by sections 2(b)(3), 2(d)(3), and 2(e)(3) of E.O. 12777 as set forth below. For purposes of this MOU, the term ''coast line'' shall be defined as in the Submerged Lands Act (43 U.S.C. 1301(c)) to mean ''the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters.''

1. To EPA, DOI redelegates responsibility for non-transportation-related offshore facilities located landward of the coast line.

2. To DOT, DOI redelegates responsibility for transportation-related facilities, including pipelines, located landward of the coast line. The DOT retains jurisdiction for deepwater ports and their associated seaward pipelines, as delegated by E.O. 12777.

3. The DOI retains jurisdiction over facilities, including pipelines, located seaward of the coast line, except for deepwater ports and associated seaward pipelines delegated by E.O. 12777 to DOT.

EFFECTIVE DATE

This MOU is effective on the date of the final execution by the indicated signatories.

LIMITATIONS

1. The DOI, DOT, and EPA may agree in writing to exceptions to this MOU on a facility-specific basis. Affected parties will receive notification of the exceptions.

2. Nothing in this MOU is intended to replace, supersede, or modify any existing agreements between or among DOI, DOT, or EPA.

MODIFICATION AND TERMINATION

Any party to this agreement may propose modifications by submitting them in writing to the heads of the other agency/department. No modification may be adopted except with the consent of all parties. All parties shall indicate their consent to or disagreement with any proposed modification within 60 days of receipt. Upon the request of any party, representatives of all parties shall meet for the purpose of considering exceptions or modifications to this agreement. This MOU may be terminated only with the mutual consent of all parties.

Dated: November 8, 1993.

Bruce Babbitt,

Secretary of the Interior.

Dated: December 14, 1993.

Federico Peña,

Secretary of Transportation.

Dated: February 3, 1994.

Carol M. Browner,

Administrator, Environmental Protection Agency.

[59 FR 34102, July 1, 1994]

APPENDIX C TO PART 112—SUBSTANTIAL HARM CRITERIA

1.0 INTRODUCTION

The flowchart provided in Attachment C–I to this appendix shows the decision tree with the criteria to identify whether a facility ''could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters or adjoining shorelines.'' In addition, the Regional Administrator has the discretion to identify facilities that must prepare and submit facility-specific response plans to EPA.

1.1 Definitions

1.1.1 *Great Lakes* means Lakes Superior, Michigan, Huron, Erie, and Ontario, their connecting and tributary waters, the Saint Lawrence River as far as Saint Regis, and adjacent port areas.

1.1.2 Higher Volume Port Areas include

(1) Boston, MA;

(2) New York, NY;

(3) Delaware Bay and River to Philadelphia, PA;

(4) St. Croix, VI;

(5) Pascagoula, MS;

(6) Mississippi River from Southwest Pass, LA to Baton Rouge, LA;

(7) Louisiana Offshore Oil Port (LOOP), LA;

(8) Lake Charles, LA;

(9) Sabine-Neches River, TX;

(10) Galveston Bay and Houston Ship Channel, TX;

(11) Corpus Christi, TX;

(12) Los Angeles/Long Beach Harbor, CA;

(13) San Francisco Bay, San Pablo Bay, Carquinez Strait, and Suisun Bay to Antioch, CA;

(14) Straits of Juan de Fuca from Port Angeles, WA to and including Puget Sound, WA;

(15) Prince William Sound, AK; and

(16) Others as specified by the Regional Administrator for any EPA Region.

1.1.3 *Inland Area* means the area shoreward of the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area shoreward of the lines of demarcation (COLREG lines as defined in 33 CFR 80.740–80.850). The inland area does not include the Great Lakes.

1.1.4 *Rivers and Canals* means a body of water confined within the inland area, including the Intracoastal Waterways and other waterways artificially created for navigating that have project depths of 12 feet or less.

2.0 DESCRIPTION OF SCREENING CRITERIA FOR THE SUBSTANTIAL HARM FLOWCHART

A facility that has the potential to cause substantial harm to the environment in the event of a discharge must prepare and submit a facility-specific response plan to EPA in accordance with Appendix F to this part. A description of the screening criteria for the substantial harm flowchart is provided below:

2.1 *Non-Transportation-Related Facilities With a Total Oil Storage Capacity Greater Than or Equal to 42,000 Gallons Where Operations Include Over-Water Transfers of Oil.* A non-transportation-related facility with a total oil storage capacity greater than or equal to 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA. Daily oil transfer operations at these types of facilities occur between barges and vessels and onshore bulk storage tanks over open water. These facilities are located adjacent to navigable water.

2.2 *Lack of Adequate Secondary Containment at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest aboveground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems.

2.3 *Proximity to Fish and Wildlife and Sensitive Environments at Facilities With a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined at 40 CFR 112.2) to fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil discharge could cause injury to fish and wildlife and sensitive environments using the appropriate formula presented in Attachment C–III to this appendix or a comparable formula.

2.4 *Proximity to Public Drinking Water Intakes at Facilities with a Total Oil Storage Capacity Greater than or Equal to 1 Million Gallons* A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c).

The distance at which an oil discharge from an SPCC-regulated facility would shut down a public drinking water intake shall be calculated using the appropriate formula presented in Attachment C–III to this appendix or a comparable formula.

2.5 *Facilities That Have Experienced Reportable Oil Discharges in an Amount Greater Than or Equal to 10,000 Gallons Within the Past 5 Years and That Have a Total Oil Storage Capacity Greater Than or Equal to 1 Million Gallons.* A facility's oil spill history within the past 5 years shall be considered in the evaluation for substantial harm. Any facility with a total oil storage capacity greater than or equal to 1 million gallons that has experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the past 5 years must submit a response plan to EPA.

3.0 Certification for Facilities That Do Not Pose Substantial Harm

If the facility does not meet the substantial harm criteria listed in Attachment C–I to this appendix, the owner or operator shall complete and maintain at the facility the certification form contained in Attachment C–II to this appendix. In the event an alternative formula that is comparable to the one in this appendix is used to evaluate the substantial harm criteria, the owner or operator shall attach documentation to the certification form that demonstrates the reliability and analytical soundness of the comparable formula and shall notify the Regional Administrator in writing that an alternative formula was used.

4.0 References

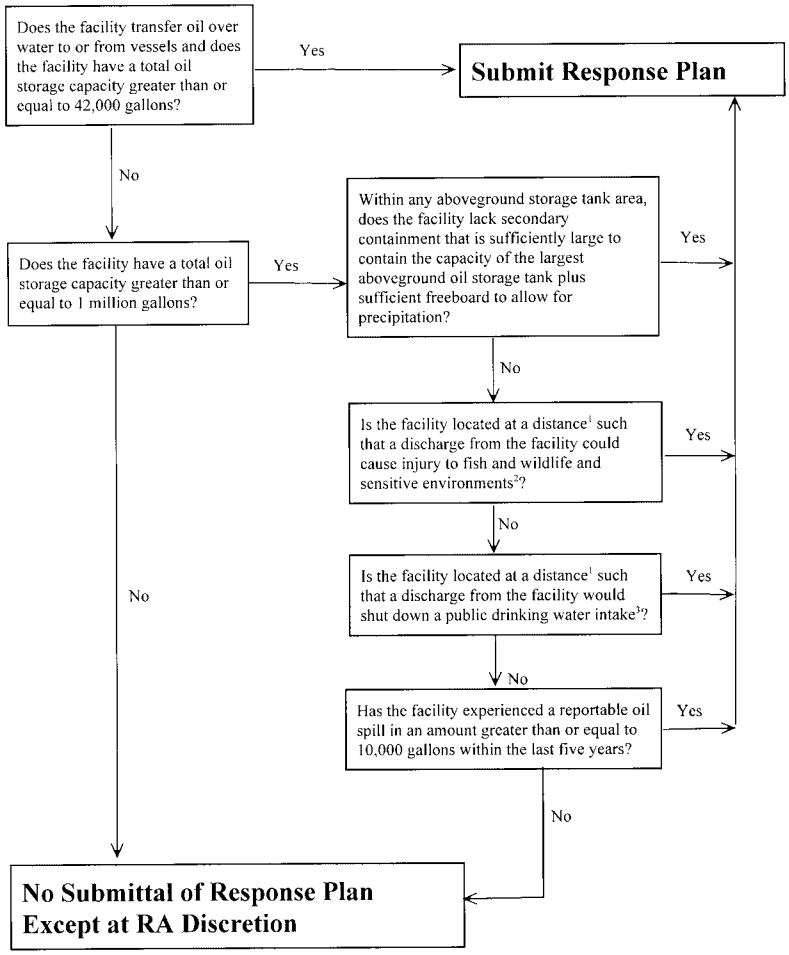
Chow, V.T. 1959. Open Channel Hydraulics. McGraw Hill.

USCG IFR (58 FR 7353, February 5, 1993). This document is available through EPA's rulemaking docket as noted in Appendix E to this part, section 13.

ATTACHMENTS TO APPENDIX C

Attachment C-I

Flowchart of Criteria for Substantial Harm



[1] Calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula.

[2] For further description of fish and wildlife and sensitive environments, see Appendices I,II, and III to DOC/NOAA's "Guidance for Facility and vessel response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.

[3] Public drinking water intakes are analogous to public water systems as described at CFR 143.2(c).

ATTACHMENT C-II—CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: _____
Facility Address: _____

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
Yes _____ No _____

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
Yes _____ No _____

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C–III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan.
Yes _____ No _____

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility would shut down a public drinking water intake[2]?
Yes _____ No _____

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?
Yes _____ No _____

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

_____
Signature

_____
Name (please type or print)

_____
Title

_____
Date

ATTACHMENT C-III—CALCULATION OF THE PLANNING DISTANCE

1.0 Introduction

1.1 The facility owner or operator must evaluate whether the facility is located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments or disrupt operations at a public drinking water intake. To quantify that distance, EPA considered oil transport mechanisms over land and on still, tidal influence, and moving navigable waters. EPA has determined that the primary concern for calculation of a planning distance is the transport of oil in navigable waters during adverse weather conditions. Therefore, two formulas have been developed to determine distances for planning purposes from the point of discharge at the facility to the potential site of impact on moving and still waters, respectively. The formula for oil transport on moving navigable water is based on the velocity of the water body and the time interval for arrival of response resources. The still water formula accounts for the spread of discharged oil over the surface of the water. The method to determine oil transport on tidal influence areas is based on the type of oil discharged and the distance down current during ebb tide and up current during flood tide to the point of maximum tidal influence.

1.2 EPA's formulas were designed to be simple to use. However, facility owners or operators may calculate planning distances using more sophisticated formulas, which take into account broader scientific or engineering principles, or local conditions. Such comparable formulas may result in different planning distances than EPA's formulas. In the event that an alternative formula that is comparable to one contained in this appendix is used to evaluate the criterion in 40 CFR 112.20(f)(1)(ii)(B) or (f)(1)(ii)(C), the owner or operator shall attach documentation to the response plan cover sheet contained in Appendix F to this part that demonstrates the reliability and analytical soundness of the alternative formula and shall notify the Regional Administrator in

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

writing that an alternative formula was used.[1]

1.3 A regulated facility may meet the criteria for the potential to cause substantial harm to the environment without having to perform a planning distance calculation. For facilities that meet the substantial harm criteria because of inadequate secondary containment or oil spill history, as listed in the flowchart in Attachment C–I to this appendix, calculation of the planning distance is unnecessary. For facilities that do not meet the substantial harm criteria for secondary containment or oil spill history as listed in the flowchart, calculation of a planning distance for proximity to fish and wildlife and sensitive environments and public drinking water intakes is required, unless it is clear without performing the calculation (e.g., the facility is located in a wetland) that these areas would be impacted.

1.4 A facility owner or operator who must perform a planning distance calculation on navigable water is only required to do so for the type of navigable water conditions (i.e., moving water, still water, or tidal- influenced water) applicable to the facility. If a facility owner or operator determines that more than one type of navigable water condition applies, then the facility owner or operator is required to perform a planning distance calculation for each navigable water type to determine the greatest single distance that oil may be transported. As a result, the final planning distance for oil transport on water shall be the greatest individual distance rather than a summation of each calculated planning distance.

1.5 The planning distance formula for transport on moving waterways contains three variables: the velocity of the navigable water (v), the response time interval (t), and a conversion factor (c). The velocity, v, is determined by using the Chezy-Manning equation, which, in this case, models the flood flow rate of water in open channels. The Chezy-Manning equation contains three variables which must be determined by facility owners or operators. Manning's Roughness Coefficient (for flood flow rates), n, can be determined from Table 1 of this attachment. The hydraulic radius, r, can be estimated using the average mid-channel depth from charts provided by the sources listed in Table 2 of this attachment. The average slope of the river, s, can be determined using topographic maps that can be ordered from the U.S. Geological Survey, as listed in Table 2 of this attachment.

1.6 Table 3 of this attachment contains specified time intervals for estimating the arrival of response resources at the scene of a discharge. Assuming no prior planning, response resources should be able to arrive at the discharge site within 12 hours of the discovery of any oil discharge in Higher Volume Port Areas and within 24 hours in Great Lakes and all other river, canal, inland, and nearshore areas. The specified time intervals in Table 3 of Appendix C are to be used only to aid in the identification of whether a facility could cause substantial harm to the environment. Once it is determined that a plan must be developed for the facility, the owner or operator shall reference Appendix E to this part to determine appropriate resource levels and response times. The specified time intervals of this appendix include a 3-hour time period for deployment of boom and other response equipment. The Regional Administrator may identify additional areas as appropriate.

2.0 Oil Transport on Moving Navigable Waters

2.1 The facility owner or operator must use the following formula or a comparable formula as described in §112.20(a)(3) to calculate the planning distance for oil transport on moving navigable water:

$d = v \times t \times c$; where

d: the distance downstream from a facility within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down in the event of an oil discharge (in miles);

v: the velocity of the river/navigable water of concern (in ft/sec) as determined by Chezy-Manning's equation (see below and Tables 1 and 2 of this attachment);

t: the time interval specified in Table 3 based upon the type of water body and location (in hours); and

c: constant conversion factor 0.68 sec/mile/hr/ft (3600 sec/hr ÷ 5280 ft/mile).

2.2 Chezy-Manning's equation is used to determine velocity:

$v = 1.5/n \times r^{2/3} \times s^{1/2}$; where

v=the velocity of the river of concern (in ft/sec);

n=Manning's Roughness Coefficient from Table 1 of this attachment;

r=the hydraulic radius; the hydraulic radius can be approximated for parabolic channels by multiplying the average mid-channel depth of the river (in feet) by 0.667

[1] For persistent oils or non-persistent oils, a worst case trajectory model (i.e., an alternative formula) may be substituted for the distance formulas described in still, moving, and tidal waters, subject to Regional Administrator's review of the model. An example of an alternative formula that is comparable to the one contained in this appendix would be a worst case trajectory calculation based on credible adverse winds, currents, and/or river stages, over a range of seasons, weather conditions, and river stages. Based on historical information or a spill trajectory model, the Agency may require that additional fish and wildlife and sensitive environments or public drinking water intakes also be protected.

(sources for obtaining the mid-channel depth are listed in Table 2 of this attachment); and

s=the average slope of the river (unitless) obtained from U.S. Geological Survey topographic maps at the address listed in Table 2 of this attachment.

TABLE 1—MANNING'S ROUGHNESS COEFFICIENT FOR NATURAL STREAMS

[NOTE: Coefficients are presented for high flow rates at or near flood stage.]

Stream description	Roughness coefficient (n)
Minor Streams (Top Width <100 ft.)	
Clean:	
Straight	0.03
Winding	0.04
Sluggish (Weedy, deep pools):	
No trees or brush	0.06
Trees and/or brush	0.10
Major Streams (Top Width >100 ft.)	
Regular section:	
(No boulders/brush)	0.035
Irregular section:	
(Brush)	0.05

TABLE 2—SOURCES OF R AND S FOR THE CHEZY-MANNING EQUATION

All of the charts and related publications for navigational waters may be ordered from:
Distribution Branch
(N/CG33)
National Ocean Service
Riverdale, Maryland 20737–1199
Phone: (301) 436–6990
There will be a charge for materials ordered and a VISA or Mastercard will be accepted.
The mid-channel depth to be used in the calculation of the hydraulic radius (r) can be obtained directly from the following sources:
Charts of Canadian Coastal and Great Lakes Waters:
Canadian Hydrographic Service
Department of Fisheries and Oceans Institute
P.O. Box 8080
1675 Russell Road
Ottawa, Ontario KIG 3H6
Canada
Phone: (613) 998–4931
Charts and Maps of Lower Mississippi River (Gulf of Mexico to Ohio River and St. Francis, White, Big Sunflower, Atchafalaya, and other rivers):
U.S. Army Corps of Engineers
Vicksburg District
P.O. Box 60
Vicksburg, Mississippi 39180
Phone: (601) 634–5000
Charts of Upper Mississippi River and Illinois Waterway to Lake Michigan:
U.S. Army Corps of Engineers
Rock Island District
P.O. Box 2004
Rock Island, Illinois 61204
Phone: (309) 794–5552
Charts of Missouri River:
U.S. Army Corps of Engineers
Omaha District
6014 U.S. Post Office and Courthouse
Omaha, Nebraska 68102
Phone: (402) 221–3900
Charts of Ohio River:
U.S. Army Corps of Engineers
Ohio River Division
P.O. Box 1159
Cincinnati, Ohio 45201
Phone: (513) 684–3002
Charts of Tennessee Valley Authority Reservoirs, Tennessee River and Tributaries:
Tennessee Valley Authority
Maps and Engineering Section
416 Union Avenue
Knoxville, Tennessee 37902
Phone: (615) 632–2921
Charts of Black Warrior River, Alabama River, Tombigbee River, Apalachicola River and Pearl River:
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628–0001
Phone: (205) 690–2511
The average slope of the river (s) may be obtained from topographic maps:
U.S. Geological Survey
Map Distribution
Federal Center
Bldg. 41
Box 25286
Denver, Colorado 80225
Additional information can be obtained from the following sources:

1. The State's Department of Natural Resources (DNR) or the State's Aids to Navigation office;
2. A knowledgeable local marina operator; or
3. A knowledgeable local water authority (e.g., State water commission)

2.3 The average slope of the river (s) can be determined from the topographic maps using the following steps:

(1) Locate the facility on the map.

(2) Find the Normal Pool Elevation at the point of discharge from the facility into the water (A).

(3) Find the Normal Pool Elevation of the public drinking water intake or fish and wildlife and sensitive environment located downstream (B) (Note: The owner or operator should use a minimum of 20 miles downstream as a cutoff to obtain the average slope if the location of a specific public drinking water intake or fish and wildlife and sensitive environment is unknown).

(4) If the Normal Pool Elevation is not available, the elevation contours can be used to find the slope. Determine elevation of the water at the point of discharge from the facility (A). Determine the elevation of the

water at the appropriate distance downstream (B). The formula presented below can be used to calculate the slope.

(5) Determine the distance (in miles) between the facility and the public drinking water intake or fish and wildlife and sensitive environments (C).

(6) Use the following formula to find the slope, which will be a unitless value: Average Slope=[(A−B) (ft)/C (miles)] × [1 mile/5280 feet]

2.4 If it is not feasible to determine the slope and mid-channel depth by the Chezy-Manning equation, then the river velocity can be approximated on- site. A specific length, such as 100 feet, can be marked off along the shoreline. A float can be dropped into the stream above the mark, and the time required for the float to travel the distance can be used to determine the velocity in feet per second. However, this method will not yield an average velocity for the length of the stream, but a velocity only for the specific location of measurement. In addition, the flow rate will vary depending on weather conditions such as wind and rainfall. It is recommended that facility owners or operators repeat the measurement under a variety of conditions to obtain the most accurate estimate of the surface water velocity under adverse weather conditions.

2.5 The planning distance calculations for moving and still navigable waters are based on worst case discharges of persistent oils. Persistent oils are of concern because they can remain in the water for significant periods of time and can potentially exist in large quantities downstream. Owners or operators of facilities that store persistent as well as non-persistent oils may use a comparable formula. The volume of oil discharged is not included as part of the planning distance calculation for moving navigable waters. Facilities that will meet this substantial harm criterion are those with facility capacities greater than or equal to 1 million gallons. It is assumed that these facilities are capable of having an oil discharge of sufficient quantity to cause injury to fish and wildlife and sensitive environments or shut down a public drinking water intake. While owners or operators of transfer facilities that store greater than or equal to 42,000 gallons are not required to use a planning distance formula for purposes of the substantial harm criteria, they should use a planning distance calculation in the development of facility-specific response plans.

TABLE 3—SPECIFIED TIME INTERVALS

Operating areas	Substantial harm planning time (hrs)
Higher volume port area.	12 hour arrival+3 hour deployment=15 hours.
Great Lakes ...	24 hour arrival+3 hour deployment=27 hours.
All other rivers and canals, inland, and nearshore areas.	24 hour arrival+3 hour deployment=27 hours.

2.6 *Example of the Planning Distance Calculation for Oil Transport on Moving Navigable Waters.* The following example provides a sample calculation using the planning distance formula for a facility discharging oil into the Monongahela River:

(1) Solve for v by evaluating n, r, and s for the Chezy-Manning equation:

Find the roughness coefficient, n, on Table 1 of this attachment for a regular section of a major stream with a top width greater than 100 feet. The top width of the river can be found from the topographic map.

n=0.035.

Find slope, s, where A=727 feet, B=710 feet, and C=25 miles.

Solving:

$s=[(727\ ft-1710\ ft)/25\ miles]\times[1\ mile/5280\ feet]=1.3\times10^{-4}$

The average mid-channel depth is found by averaging the mid-channel depth for each mile along the length of the river between the facility and the public drinking water intake or the fish or wildlife or sensitive environment (or 20 miles downstream if applicable). This value is multiplied by 0.667 to obtain the hydraulic radius. The mid-channel depth is found by obtaining values for r and s from the sources shown in Table 2 for the Monongahela River.

Solving:

r=0.667×20 feet=13.33 feet

Solve for v using:

$v=1.5/n\times r^{2/3}\times s^{1/2}$:

$v=[1.5/0.035]\times(13.33)^{2/3}\times(1.3\times10^{-4})^{1/2}$

v=2.73 feet/second

(2) Find t from Table 3 of this attachment. The Monongahela River's resource response time is 27 hours.

(3) Solve for planning distance, d:

d=v×t×c

d=(2.73 ft/sec)×(27 hours)×(0.68 secω mile/hrω ft)

d=50 miles

Therefore, 50 miles downstream is the appropriate planning distance for this facility.

3.0 Oil Transport on Still Water

3.1 For bodies of water including lakes or ponds that do not have a measurable velocity, the spreading of the oil over the surface must be considered. Owners or operators of facilities located next to still water bodies may use a comparable means of calculating

the planning distance. If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable calculation must be attached to the response plan cover sheet.

3.2 *Example of the Planning Distance Calculation for Oil Transport on Still Water.* To assist those facilities which could potentially discharge into a still body of water, the following analysis was performed to provide an example of the type of formula that may be used to calculate the planning distance. For this example, a worst case discharge of 2,000,000 gallons is used.

(1) The surface area in square feet covered by an oil discharge on still water, A1, can be determined by the following formula,[2] where V is the volume of the discharge in gallons and C is a constant conversion factor:

$A_1=10^5\times V^{3/4}\times C$

$C=0.1643$

$A_1=10^5\times(2{,}000{,}000 \text{ gallons})^{3/4}\times(0.1643)$

$A_1=8.74\times10^8 \text{ ft}^2$

(2) The spreading formula is based on the theoretical condition that the oil will spread uniformly in all directions forming a circle. In reality, the outfall of the discharge will direct the oil to the surface of the water where it intersects the shoreline. Although the oil will not spread uniformly in all directions, it is assumed that the discharge will spread from the shoreline into a semi-circle (this assumption does not account for winds or wave action).

(3) The area of a circle=† r^2

(4) To account for the assumption that oil will spread in a semi-circular shape, the area of a circle is divided by 2 and is designated as A_2.

$A_2=(\dagger r^2)/2$

Solving for the radius, r, using the relationship $A_1=A_2$: $8.74\times10^8 \text{ ft}^2=(\dagger^2)/2$

Therefore, r=23,586 ft

r=23,586 ft÷5,280 ft/mile=4.5 miles

Assuming a 20 knot wind under storm conditions:

1 knot=1.15 miles/hour

20 knots×1.15 miles/hour/knot=23 miles/hr

Assuming that the oil slick moves at 3 percent of the wind's speed:[3]

23 miles/hour×0.03=0.69 miles/hour

(5) To estimate the distance that the oil will travel, use the times required for response resources to arrive at different geographic locations as shown in Table 3 of this attachment.

For example:

For Higher Volume Port Areas: 15 hrs×0.69 miles/hr=10.4 miles

For Great Lakes and all other areas: 27 hrs×0.69 miles/hr=18.6 miles

(6) The total distance that the oil will travel from the point of discharge, including the distance due to spreading, is calculated as follows:

Higher Volume Port Areas: d=10.4+4.5 miles or approximately 15 miles

Great Lakes and all other areas: d=18.6+4.5 miles or approximately 23 miles

4.0 Oil Transport on Tidal-Influence Areas

4.1 The planning distance method for tidal influence navigable water is based on worst case discharges of persistent and non-persistent oils. Persistent oils are of primary concern because they can potentially cause harm over a greater distance. For persistent oils discharged into tidal waters, the planning distance is 15 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 15 miles, whichever is less, during flood tide.

4.2 For non-persistent oils discharged into tidal waters, the planning distance is 5 miles from the facility down current during ebb tide and to the point of maximum tidal influence or 5 miles, whichever is less, during flood tide.

4.3 *Example of Determining the Planning Distance for Two Types of Navigable Water Conditions.* Below is an example of how to determine the proper planning distance when a facility could impact two types of navigable water conditions: moving water and tidal water.

(1) Facility X stores persistent oil and is located downstream from locks along a slow moving river which is affected by tides. The river velocity, v, is determined to be 0.5 feet/second from the Chezy-Manning equation used to calculate oil transport on moving navigable waters. The specified time interval, t, obtained from Table 3 of this attachment for river areas is 27 hours. Therefore, solving for the planning distance, d:

$d=v\times t\times c$

$d=(0.5 \text{ ft/sec})\times(27 \text{ hours})\times(0.68 \text{ secmile/hrft})$

$d=9.18$ miles.

(2) However, the planning distance for maximum tidal influence down current during ebb tide is 15 miles, which is greater than the calculated 9.18 miles. Therefore, 15 miles downstream is the appropriate planning distance for this facility.

5.0 Oil Transport Over Land

5.1 Facility owners or operators must evaluate the potential for oil to be transported over land to navigable waters of the United States. The owner or operator must evaluate the likelihood that portions of a worst case discharge would reach navigable

[2] Huang, J.C. and Monastero, F.C., 1982. *Review of the State-of-the-Art of Oil Pollution Models.* Final report submitted to the American Petroleum Institute by Raytheon Ocean Systems, Co., East Providence, Rhode Island.

[3] *Oil Spill Prevention & Control.* National Spill Control School, Corpus Christi State University, Thirteenth Edition, May 1990.

waters via open channel flow or from sheet flow across the land, or be prevented from reaching navigable waters when trapped in natural or man-made depressions excluding secondary containment structures.

5.2 As discharged oil travels over land, it may enter a storm drain or open concrete channel intended for drainage. It is assumed that once oil reaches such an inlet, it will flow into the receiving navigable water. During a storm event, it is highly probable that the oil will either flow into the drainage structures or follow the natural contours of the land and flow into the navigable water. Expected minimum and maximum velocities are provided as examples of open concrete channel and pipe flow. The ranges listed below reflect minimum and maximum velocities used as design criteria.[4] The calculation below demonstrates that the time required for oil to travel through a storm drain or open concrete channel to navigable water is negligible and can be considered instantaneous. The velocities are:

For open concrete channels:
maximum velocity=25 feet per second
minimum velocity=3 feet per second
For storm drains:
maximum velocity=25 feet per second
minimum velocity=2 feet per second

5.3 Assuming a length of 0.5 mile from the point of discharge through an open concrete channel or concrete storm drain to a navigable water, the travel times (distance/velocity) are:

1.8 minutes at a velocity of 25 feet per second
14.7 minutes at a velocity of 3 feet per second
22.0 minutes for at a velocity of 2 feet per second

5.4 The distances that shall be considered to determine the planning distance are illustrated in Figure C-I of this attachment. The relevant distances can be described as follows:

D1=Distance from the nearest opportunity for discharge, X_1, to a storm drain or an open concrete channel leading to navigable water.
D2=Distance through the storm drain or open concrete channel to navigable water.
D3=Distance downstream from the outfall within which fish and wildlife and sensitive environments could be injured or a public drinking water intake would be shut down as determined by the planning distance formula.
D4=Distance from the nearest opportunity for discharge, X_2, to fish and wildlife and sensitive environments not bordering navigable water.

5.5 A facility owner or operator whose nearest opportunity for discharge is located within 0.5 mile of a navigable water must complete the planning distance calculation (D3) for the type of navigable water near the facility or use a comparable formula.

5.6 A facility that is located at a distance greater than 0.5 mile from a navigable water must also calculate a planning distance (D3) if it is in close proximity (i.e., D1 is less than 0.5 mile and other factors are conducive to oil travel over land) to storm drains that flow to navigable waters. Factors to be considered in assessing oil transport over land to storm drains shall include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity. Storm drains or concrete drainage channels that are located in close proximity to the facility can provide a direct pathway to navigable waters, regardless of the length of the drainage pipe. If D1 is less than or equal to 0.5 mile, a discharge from the facility could pose substantial harm because the time to travel the distance from the storm drain to the navigable water (D2) is virtually instantaneous.

5.7 A facility's proximity to fish and wildlife and sensitive environments not bordering a navigable water, as depicted as D4 in Figure C–I of this attachment, must also be considered, regardless of the distance from the facility to navigable waters. Factors to be considered in assessing oil transport over land to fish and wildlife and sensitive environments should include the topography of the surrounding area, drainage patterns, man-made barriers (excluding secondary containment structures), and soil distribution and porosity.

5.8 If a facility is not found to pose substantial harm to fish and wildlife and sensitive environments not bordering navigable waters via oil transport on land, then supporting documentation should be maintained at the facility. However, such documentation should be submitted with the response plan if a facility is found to pose substantial harm.

[4] The design velocities were obtained from Howard County, Maryland Department of Public Works' Storm Drainage Design Manual.

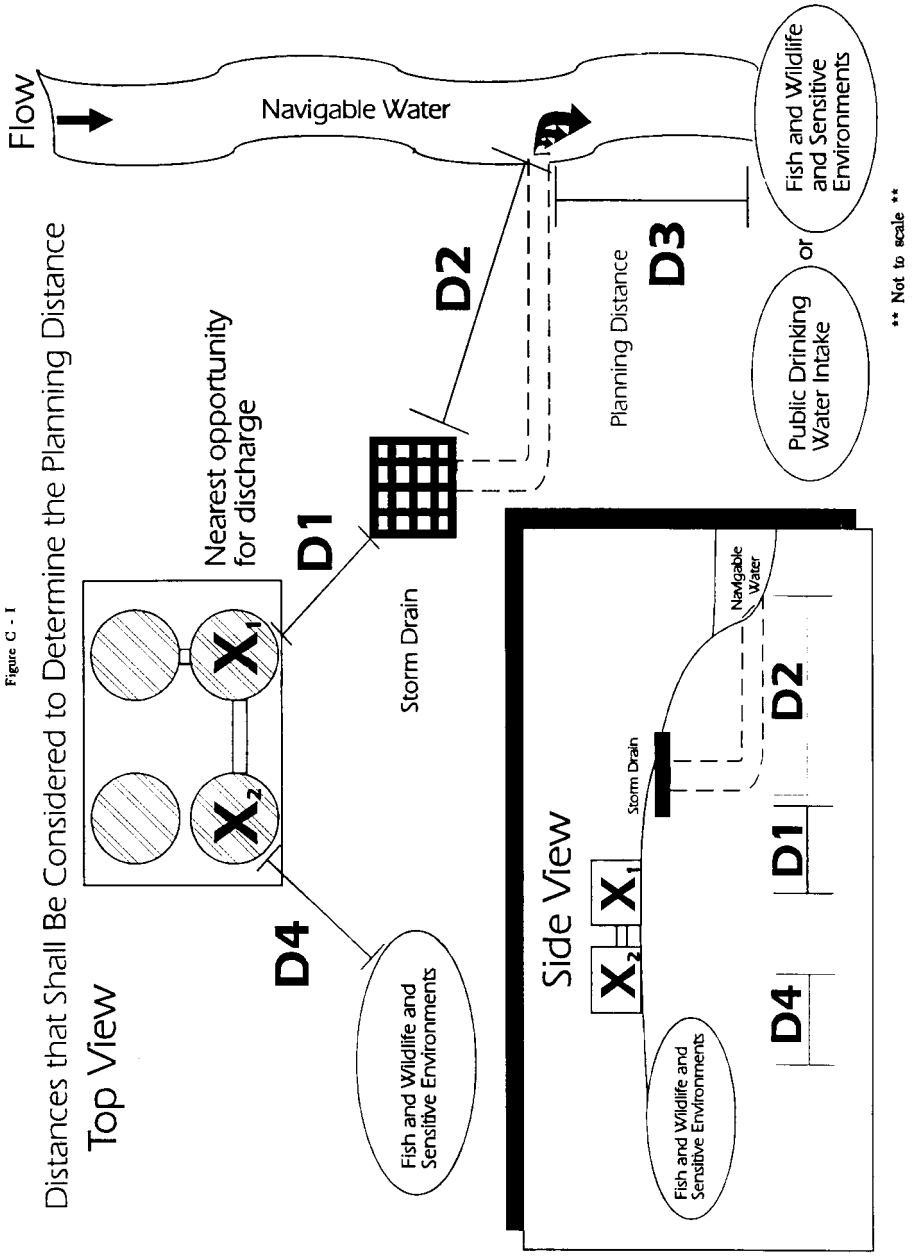


Figure C - 1

[59 FR 34102, July 1, 1994, as amended at 65 FR 40798, June 30, 2000; 67 FR 47152, July 17, 2002]

APPENDIX D TO PART 112—DETERMINATION OF A WORST CASE DISCHARGE PLANNING VOLUME

1.0 Instructions

1.1 An owner or operator is required to complete this worksheet if the facility meets the criteria, as presented in Appendix C to this part, or it is determined by the RA that the facility could cause substantial harm to the environment. The calculation of a worst case discharge planning volume is used for emergency planning purposes, and is required in 40 CFR 112.20 for facility owners or operators who must prepare a response plan. When planning for the amount of resources and equipment necessary to respond to the worst case discharge planning volume, adverse weather conditions must be taken into consideration. An owner or operator is required to determine the facility's worst case discharge planning volume from either part A of this appendix for an onshore storage facility, or part B of this appendix for an onshore production facility. The worksheet considers the provision of adequate secondary containment at a facility.

1.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In a worst case discharge scenario, a single failure could cause the discharge of the contents of more than one tank. The owner or operator must provide evidence in the response plan that tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge planning volume would be based on the capacity of the largest oil storage tank within a common secondary containment area or the largest oil storage tank within a single secondary containment area, whichever is greater. For permanently manifolded tanks that function as one oil storage unit, the worst case discharge planning volume would be based on the combined oil storage capacity of all manifolded tanks or the capacity of the largest single oil storage tank within a secondary containment area, whichever is greater. For purposes of this rule, permanently manifolded tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.3 For production facilities, the presence of exploratory wells, production wells, and oil storage tanks must be considered in the calculation. Part B of this appendix takes these additional factors into consideration and provides steps for their inclusion in the total worst case discharge planning volume. Onshore oil production facilities may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator. Although a potential worst case discharge planning volume is calculated within each section of the worksheet, the final worst case amount depends on the risk parameter that results in the greatest volume.

1.4 Marine transportation-related transfer facilities that contain fixed aboveground onshore structures used for bulk oil storage are jointly regulated by EPA and the U.S. Coast Guard (USCG), and are termed ''complexes.'' Because the USCG also requires response plans from transportation-related facilities to address a worst case discharge of oil, a separate calculation for the worst case discharge planning volume for USCG-related facilities is included in the USCG IFR (see Appendix E to this part, section 13, for availability). All complexes that are jointly regulated by EPA and the USCG must compare both calculations for worst case discharge planning volume derived by using the EPA and USCG methodologies and plan for whichever volume is greater.

PART A: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE STORAGE FACILITIES[1]

Part A of this worksheet is to be completed by the owner or operator of an SPCC-regulated facility (excluding oil production facilities) if the facility meets the criteria as presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm to the environment. If you are the owner or operator of a production facility, please proceed to part B of this worksheet.

A.1 SINGLE-TANK FACILITIES

For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the oil storage tank. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the oil storage tank, multiply the capacity of the tank by 0.8.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

[1] ''Storage facilities'' represent all facilities subject to this part, excluding oil production facilities.

A.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?[2]

_____ (Y/N)

A.2.1 If the answer is yes, the final worst case discharge planning volume equals the *total aboveground oil storage capacity at the facility*.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

A.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER ''0'' (zero).

_____ GAL

A.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, PLUS THE VOLUME FROM QUESTION A.2.2.

FINAL WORST CASE VOLUME:[3] _____ GAL

PART B: WORST CASE DISCHARGE PLANNING VOLUME CALCULATION FOR ONSHORE PRODUCTION FACILITIES

Part B of this worksheet is to be completed by the owner or operator of an SPCC-regulated oil production facility if the facility meets the criteria presented in Appendix C to this part, or if it is determined by the RA that the facility could cause substantial harm. A production facility consists of all wells (producing and exploratory) and related equipment in a single geographical oil or gas field operated by a single operator.

B.1 SINGLE-TANK FACILITIES

B.1.1 For facilities containing only one aboveground oil storage tank, the worst case discharge planning volume equals the capacity of the aboveground oil storage tank plus the production volume of the well with the highest output at the facility. If adequate secondary containment (sufficiently large to contain the capacity of the aboveground oil storage tank plus sufficient freeboard to allow for precipitation) exists for the storage tank, multiply the capacity of the tank by 0.8.

B.1.2 For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

B.1.3 If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

B.1.4 Attachment D–1 to this appendix provides methods for calculating the production volume for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME: _____ GAL

(2) Do not proceed further.

B.2 SECONDARY CONTAINMENT—MULTIPLE-TANK FACILITIES

Are *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility *without* adequate secondary containment?

_____ (Y/N)

B.2.1 If the answer is yes, the final worst case volume equals the total aboveground oil storage capacity without adequate secondary containment plus the production volume of the well with the highest output at the facility.

(1) For facilities with production wells producing by pumping, if the rate of the well with the highest output is known and the number of days the facility is unattended can be predicted, then the production volume is equal to the pumping rate of the well multiplied by the greatest number of days the facility is unattended.

(2) If the pumping rate of the well with the highest output is estimated or the maximum number of days the facility is unattended is estimated, then the production volume is determined from the pumping rate of the well multiplied by 1.5 times the greatest number of days that the facility has been or is expected to be unattended.

(3) Attachment D–1 to this appendix provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(A) FINAL WORST CASE VOLUME: _____ GAL

(B) Do not proceed further.

[2] Secondary containment is described in 40 CFR part 112, subparts A through C. Acceptable methods and structures for containment are also given in 40 CFR 112.7(c)(1).

[3] All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

B.2.2 If the answer is no, calculate the total aboveground oil storage capacity of tanks without adequate secondary containment. If *all* aboveground oil storage tanks or groups of aboveground oil storage tanks at the facility have adequate secondary containment, ENTER ''0'' (zero).

_____ GAL

B.2.3 Calculate the capacity of the largest single aboveground oil storage tank within an adequate secondary containment area or the combined capacity of a group of aboveground oil storage tanks permanently manifolded together, whichever is greater, plus the production volume of the well with the highest output, PLUS THE VOLUME FROM QUESTION B.2.2. Attachment D–1 provides methods for calculating the production volumes for exploratory wells and production wells producing under pressure.

(1) FINAL WORST CASE VOLUME:[4]

_____ GAL

(2) Do not proceed further.

ATTACHMENTS TO APPENDIX D

ATTACHMENT D–I—METHODS TO CALCULATE PRODUCTION VOLUMES FOR PRODUCTION FACILITIES WITH EXPLORATORY WELLS OR PRODUCTION WELLS PRODUCING UNDER PRESSURE

1.0 Introduction

The owner or operator of a production facility with exploratory wells or production wells producing under pressure shall compare the well rate of the highest output well (rate of well), in barrels per day, to the ability of response equipment and personnel to recover the volume of oil that could be discharged (rate of recovery), in barrels per day. The result of this comparison will determine the method used to calculate the production volume for the production facility. This production volume is to be used to calculate the worst case discharge planning volume in part B of this appendix.

2.0 Description of Methods

2.1 Method A

If the well rate would overwhelm the response efforts (i.e., rate of well/rate of recovery ≥1), then the production volume would be the 30-day forecasted well rate for a well 10,000 feet deep or less, or the 45-day forecasted well rate for a well deeper than 10,000 feet.

(1) For wells 10,000 feet deep or less:

Production volume=30 days × rate of well.

(2) For wells deeper than 10,000 feet:

Production volume=45 days × rate of well.

2.2 Method B

2.2.1 If the rate of recovery would be greater than the well rate (i.e., rate of well/rate of recovery <1), then the production volume would equal the sum of two terms:

Production volume=discharge volume$_1$ + discharge volume$_2$

2.2.2 The first term represents the volume of the oil discharged from the well between the time of the blowout and the time the response resources are on scene and recovering oil (discharge volume$_1$).

Discharge volume$_1$=(days unattended+days to respond) × (rate of well)

2.2.3 The second term represents the volume of oil discharged from the well after the response resources begin operating until the discharge is stopped, adjusted for the recovery rate of the response resources (discharge volume$_2$).

(1) For wells 10,000 feet deep or less:

Discharge volume$_2$=[30 days−(days unattended + days to respond)] × (rate of well) × (rate of well/rate of recovery)

(2) For wells deeper than 10,000 feet:

Discharge volume$_2$=[45 days−(days unattended + days to respond)] × (rate of well) × (rate of well/rate of recovery)

3.0 Example

3.1 A facility consists of two production wells producing under pressure, which are both less than 10,000 feet deep. The well rate of well A is 5 barrels per day, and the well rate of well B is 10 barrels per day. The facility is unattended for a maximum of 7 days. The facility operator estimates that it will take 2 days to have response equipment and personnel on scene and responding to a blowout, and that the projected rate of recovery will be 20 barrels per day.

(1) First, the facility operator determines that the highest output well is well B. The facility operator calculates the ratio of the rate of well to the rate of recovery:

10 barrels per day/20 barrels per day=0.5 Because the ratio is less than one, the facility operator will use Method B to calculate the production volume.

(2) The first term of the equation is:

Discharge volume$_1$=(7 days + 2 days) × (10 barrels per day)=90 barrels

(3) The second term of the equation is:

Discharge volume$_2$=[30 days—(7 days + 2 days)] × (10 barrels per day) × (0.5)=105 barrels

(4) Therefore, the production volume is:

Production volume=90 barrels + 105 barrels=195 barrels

[4] All complexes that are jointly regulated by EPA and the USCG must also calculate the worst case discharge planning volume for the transportation-related portions of the facility and plan for whichever volume is greater.

3.2 If the recovery rate was 5 barrels per day, the ratio of rate of well to rate of recovery would be 2, so the facility operator would use Method A. The production volume would have been:

30 days × 10 barrels per day=300 barrels

[59 FR 34110, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40800, June 30, 2000; 67 FR 47152, July 17, 2002]

APPENDIX E TO PART 112—DETERMINATION AND EVALUATION OF REQUIRED RESPONSE RESOURCES FOR FACILITY RESPONSE PLANS

1.0 Purpose and Definitions

1.1 The purpose of this appendix is to describe the procedures to identify response resources to meet the requirements of §112.20. To identify response resources to meet the facility response plan requirements of 40 CFR 112.20(h), owners or operators shall follow this appendix or, where not appropriate, shall clearly demonstrate in the response plan why use of this appendix is not appropriate at the facility and make comparable arrangements for response resources.

1.2 Definitions.

1.2.1 *Animal fat* means a non-petroleum oil, fat, or grease of animal, fish, or marine mammal origin. Animal fats are further classified based on specific gravity as follows:

(1) Group A—specific gravity less than 0.8.

(2) Group B—specific gravity equal to or greater than 0.8 and less than 1.0.

(3) Group C—specific gravity equal to or greater than 1.0.

1.2.2 *Nearshore* is an operating area defined as extending seaward 12 miles from the boundary lines defined in 46 CFR part 7, except in the Gulf of Mexico. In the Gulf of Mexico, it means the area extending 12 miles from the line of demarcation (COLREG lines) defined in 49 CFR 80.740 and 80.850.

1.2.3 *Non-persistent oils* or *Group 1 oils* include:

(1) A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

(A) At least 50 percent of which by volume, distill at a temperature of 340 degrees C (645 degrees F); and

(B) At least 95 percent of which by volume, distill at a temperature of 370 degrees C (700 degrees F); and

(2) A non-petroleum oil, other than an animal fat or vegetable oil, with a specific gravity less than 0.8.

1.2.4 *Non-petroleum oil* means oil of any kind that is not petroleum-based, including but not limited to: fats, oils, and greases of animal, fish, or marine mammal origin; and vegetable oils, including oils from seeds, nuts, fruits, and kernels.

1.2.5 *Ocean* means the nearshore area.

1.2.6 *Operating area* means Rivers and Canals, Inland, Nearshore, and Great Lakes geographic location(s) in which a facility is handling, storing, or transporting oil.

1.2.7 *Operating environment* means Rivers and Canals, Inland, Great Lakes, or Ocean. These terms are used to define the conditions in which response equipment is designed to function.

1.2.8 *Persistent oils* include:

(1) A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. Persistent oils are further classified based on specific gravity as follows:

(A) Group 2—specific gravity less than 0.85;

(B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;

(C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or

(D) Group 5—specific gravity equal to or greater than 1.0.

(2) A non-petroleum oil, other than an animal fat or vegetable oil, with a specific gravity of 0.8 or greater. These oils are further classified based on specific gravity as follows:

(A) Group 2—specific gravity equal to or greater than 0.8 and less than 0.85;

(B) Group 3—specific gravity equal to or greater than 0.85 and less than 0.95;

(C) Group 4—specific gravity equal to or greater than 0.95 and less than 1.0; or

(D) Group 5—specific gravity equal to or greater than 1.0.

1.2.9 *Vegetable oil* means a non-petroleum oil or fat of vegetable origin, including but not limited to oils and fats derived from plant seeds, nuts, fruits, and kernels. Vegetable oils are further classified based on specific gravity as follows:

(1) Group A—specific gravity less than 0.8.

(2) Group B—specific gravity equal to or greater than 0.8 and less than 1.0.

(3) Group C—specific gravity equal to or greater than 1.0.

1.2.10 Other definitions are included in §112.2, section 1.1 of Appendix C, and section 3.0 of Appendix F.

2.0 Equipment Operability and Readiness

2.1 All equipment identified in a response plan must be designed to operate in the conditions expected in the facility's geographic area (i.e., operating environment). These conditions vary widely based on location and season. Therefore, it is difficult to identify a single stockpile of response equipment that will function effectively in each geographic location (i.e., operating area).

2.2 Facilities handling, storing, or transporting oil in more than one operating environment as indicated in Table 1 of this appendix must identify equipment capable of successfully functioning in each operating environment.

2.3 When identifying equipment for the response plan (based on the use of this appendix), a facility owner or operator must consider the inherent limitations of the operability of equipment components and response systems. The criteria in Table 1 of this appendix shall be used to evaluate the operability in a given environment. These criteria reflect the general conditions in certain operating environments.

2.3.1 The Regional Administrator may require documentation that the boom identified in a facility response plan meets the criteria in Table 1 of this appendix. Absent acceptable documentation, the Regional Administrator may require that the boom be tested to demonstrate that it meets the criteria in Table 1 of this appendix. Testing must be in accordance with ASTM F 715, ASTM F 989, or other tests approved by EPA as deemed appropriate (see Appendix E to this part, section 13, for general availability of documents).

2.4 Table 1 of this appendix lists criteria for oil recovery devices and boom. All other equipment necessary to sustain or support response operations in an operating environment must be designed to function in the same conditions. For example, boats that deploy or support skimmers or boom must be capable of being safely operated in the significant wave heights listed for the applicable operating environment.

2.5 A facility owner or operator shall refer to the applicable Area Contingency Plan (ACP), where available, to determine if ice, debris, and weather-related visibility are significant factors to evaluate the operability of equipment. The ACP may also identify the average temperature ranges expected in the facility's operating area. All equipment identified in a response plan must be designed to operate within those conditions or ranges.

2.6 This appendix provides information on response resource mobilization and response times. The distance of the facility from the storage location of the response resources must be used to determine whether the resources can arrive on-scene within the stated time. A facility owner or operator shall include the time for notification, mobilization, and travel of resources identified to meet the medium and Tier 1 worst case discharge requirements identified in sections 4.3 and 9.3 of this appendix (for medium discharges) and section 5.3 of this appendix (for worst case discharges). The facility owner or operator must plan for notification and mobilization of Tier 2 and 3 response resources as necessary to meet the requirements for arrival on-scene in accordance with section 5.3 of this appendix. An on-water speed of 5 knots and a land speed of 35 miles per hour is assumed, unless the facility owner or operator can demonstrate otherwise.

2.7 In identifying equipment, the facility owner or operator shall list the storage location, quantity, and manufacturer's make and model. For oil recovery devices, the effective daily recovery capacity, as determined using section 6 of this appendix, must be included. For boom, the overall boom height (draft and freeboard) shall be included. A facility owner or operator is responsible for ensuring that the identified boom has compatible connectors.

3.0 Determining Response Resources Required for Small Discharges—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

3.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a small discharge. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

3.2 Complexes that are regulated by EPA and the United States Coast Guard (USCG) must also consider planning quantities for the transportation-related transfer portion of the facility.

3.2.1 *Petroleum oils.* The USCG planning level that corresponds to EPA's ''small discharge'' is termed ''the average most probable discharge.'' A USCG rule found at 33 CFR 154.1020 defines ''the average most probable discharge'' as the lesser of 50 barrels (2,100 gallons) or 1 percent of the volume of the worst case discharge. Owners or operators of complexes that handle, store, or transport petroleum oils must compare oil discharge volumes for a small discharge and an average most probable discharge, and plan for whichever quantity is greater.

3.2.2 *Non-petroleum oils other than animal fats and vegetable oils.* Owners or operators of complexes that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils must plan for oil discharge volumes for a small discharge. There is no USCG planning level that directly corresponds to EPA's ''small discharge.'' However, the USCG (at 33 CFR 154.545) has requirements to identify equipment to contain oil resulting from an operational discharge.

3.3 The response resources shall, as appropriate, include:

3.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a discharge;

3.3.2 Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a small discharge or greater which is available at the

facility within 2 hours of the detection of an oil discharge; and

3.3.3 Oil storage capacity for recovered oily material indicated in section 12.2 of this appendix.

4.0 Determining Response Resources Required for Medium Discharges—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

4.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of oil for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

4.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility.

4.2.1 *Petroleum oils.* The USCG planning level that corresponds to EPA's ''medium discharge'' is termed ''the maximum most probable discharge.'' The USCG rule found at 33 CFR part 154 defines ''the maximum most probable discharge'' as a discharge of 1,200 barrels (50,400 gallons) or 10 percent of the worst case discharge, whichever is less. Owners or operators of complexes that handle, store, or transport petroleum oils must compare calculated discharge volumes for a medium discharge and a maximum most probable discharge, and plan for whichever quantity is greater.

4.2.2 *Non-petroleum oils other than animal fats and vegetable oils.* Owners or operators of complexes that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils must plan for oil discharge volumes for a medium discharge. For non-petroleum oils, there is no USCG planning level that directly corresponds to EPA's ''medium discharge.''

4.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

4.4 Because rapid control, containment, and removal of oil are critical to reduce discharge impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 4.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

4.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in §112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable ACP. Although 40 CFR part 112 does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in §112.2, the availability of the quantity of boom identified in the plan for this purpose.

4.6 The plan must indicate the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

4.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area: The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the daily recovery capacity as indicated in section 12.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in §112.2. The facility owner shall also identify how much boom is available for use.

5.0 Determining Response Resources Required for the Worst Case Discharge to the Maximum Extent Practicable

5.1 A facility owner or operator shall identify and ensure the availability of, by

contract or other approved means as described in §112.2, sufficient response resources to respond to the worst case discharge of oil to the maximum extent practicable. Sections 7 and 10 of this appendix describe the method to determine the necessary response resources. Worksheets are provided as Attachments E–1 and E–2 at the end of this appendix to simplify the procedures involved in calculating the planning volume for response resources for the worst case discharge.

5.2 Complexes that are regulated by EPA and the USCG must also consider planning for the worst case discharge at the transportation-related portion of the facility. The USCG requires that transportation-related facility owners or operators use a different calculation for the worst case discharge in the revisions to 33 CFR part 154. Owners or operators of complex facilities that are regulated by EPA and the USCG must compare both calculations of worst case discharge derived by EPA and the USCG and plan for whichever volume is greater.

5.3 Oil discharge response resources identified in the response plan and available, by contract or other approved means as described in §112.2, to meet the applicable worst case discharge planning volume must be located such that they are capable of arriving at the scene of a discharge within the times specified for the applicable response tier listed as follows

	Tier 1 (in hours)	Tier 2 (in hours)	Tier 3 (in hours)
Higher volume port areas	6	30	54
Great Lakes	12	36	60
All other river and canal, inland, and nearshore areas	12	36	60

The three levels of response tiers apply to the amount of time in which facility owners or operators must plan for response resources to arrive at the scene of a discharge to respond to the worst case discharge planning volume. For example, at a worst case discharge in an inland area, the first tier of response resources (*i.e.,* that amount of onwater and shoreline cleanup capacity necessary to respond to the fraction of the worst case discharge as indicated through the series of steps described in sections 7.2 and 7.3 or sections 10.2 and 10.3 of this appendix) would arrive at the scene of the discharge within 12 hours; the second tier of response resources would arrive within 36 hours; and the third tier of response resources would arrive within 60 hours.

5.4 The effective daily recovery capacity for oil recovery devices identified in the response plan must be determined using the criteria in section 6 of this appendix. A facility owner or operator shall identify the storage locations of all response resources used for each tier. The owner or operator of a facility whose required daily recovery capacity exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment, their location, and the arrangements made to obtain this equipment during a response. The owner or operator of a facility whose calculated planning volume exceeds the applicable contracting caps in Table 5 of this appendix shall, as appropriate, identify sources of additional equipment equal to twice the cap listed in Tier 3 or the amount necessary to reach the calculated planning volume, whichever is lower. The resources identified above the cap shall be capable of arriving on-scene not later than the Tier 3 response times in section 5.3 of this appendix. No contract is required. While general listings of available response equipment may be used to identify additional sources (i.e., ''public'' resources vs. ''private'' resources), the response plan shall identify the specific sources, locations, and quantities of equipment that a facility owner or operator has considered in his or her planning. When listing USCG-classified oil spill removal organization(s) that have sufficient removal capacity to recover the volume above the response capacity cap for the specific facility, as specified in Table 5 of this appendix, it is not necessary to list specific quantities of equipment.

5.5 A facility owner or operator shall identify the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

5.6 When selecting response resources necessary to meet the response plan requirements, the facility owner or operator shall, as appropriate, ensure that a portion of those resources is capable of being used in close-to-shore response activities in shallow water. For any EPA-regulated facility that is required to plan for response in shallow water, at least 20 percent of the on-water response equipment identified for the applicable operating area shall, as appropriate, be capable of operating in water of 6 feet or less depth.

5.7 In addition to oil spill recovery devices, a facility owner or operator shall identify sufficient quantities of boom that are available, by contract or other approved means as described in §112.2, to arrive on-

scene within the specified response times for oil containment and collection. The specific quantity of boom required for collection and containment will depend on the facility-specific information and response strategies employed. A facility owner or operator shall, as appropriate, also identify sufficient quantities of oil containment boom to protect fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability), and the applicable ACP. Refer to this guidance document for the number of days and geographic areas (*i.e.*, operating environments) specified in Table 2 and Table 6 of this appendix.

5.8 A facility owner or operator shall also identify, by contract or other approved means as described in §112.2, the availability of an oil spill removal organization(s) (as described in §112.2) capable of responding to a shoreline cleanup operation involving the calculated volume of oil and emulsified oil that might impact the affected shoreline. The volume of oil that shall, as appropriate, be planned for is calculated through the application of factors contained in Tables 2, 3, 6, and 7 of this appendix. The volume calculated from these tables is intended to assist the facility owner or operator to identify an oil spill removal organization with sufficient resources and expertise.

6.0 Determining Effective Daily Recovery Capacity for Oil Recovery Devices

6.1 Oil recovery devices identified by a facility owner or operator must be identified by the manufacturer, model, and effective daily recovery capacity. These capacities must be used to determine whether there is sufficient capacity to meet the applicable planning criteria for a small discharge, a medium discharge, and a worst case discharge to the maximum extent practicable.

6.2 To determine the effective daily recovery capacity of oil recovery devices, the formula listed in section 6.2.1 of this appendix shall be used. This formula considers potential limitations due to available daylight, weather, sea state, and percentage of emulsified oil in the recovered material. The RA may assign a lower efficiency factor to equipment listed in a response plan if it is determined that such a reduction is warranted.

6.2.1 The following formula shall be used to calculate the effective daily recovery capacity:

$R = T \times 24 \text{ hours} \times E$

where:

R—Effective daily recovery capacity;

T—Throughput rate in barrels per hour (nameplate capacity); and

E—20 percent efficiency factor (or lower factor as determined by the Regional Administrator).

6.2.2 For those devices in which the pump limits the throughput of liquid, throughput rate shall be calculated using the pump capacity.

6.2.3 For belt or moptype devices, the throughput rate shall be calculated using the speed of the belt or mop through the device, assumed thickness of oil adhering to or collected by the device, and surface area of the belt or mop. For purposes of this calculation, the assumed thickness of oil will be ¼ inch.

6.2.4 Facility owners or operators that include oil recovery devices whose throughput is not measurable using a pump capacity or belt/mop speed may provide information to support an alternative method of calculation. This information must be submitted following the procedures in section 6.3.2 of this appendix.

6.3 As an alternative to section 6.2 of this appendix, a facility owner or operator may submit adequate evidence that a different effective daily recovery capacity should be applied for a specific oil recovery device. Adequate evidence is actual verified performance data in discharge conditions or tests using American Society of Testing and Materials (ASTM) Standard F 631–99, F 808–83 (1999), or an equivalent test approved by EPA as deemed appropriate (see Appendix E to this part, section 13, for general availability of documents).

6.3.1 The following formula must be used to calculate the effective daily recovery capacity under this alternative:

$R = D \times U$

where:

R—Effective daily recovery capacity;

D—Average Oil Recovery Rate in barrels per hour (Item 26 in F 808–83; Item 13.2.16 in F 631–99; or actual performance data); and

U—Hours per day that equipment can operate under discharge conditions. Ten hours per day must be used unless a facility owner or operator can demonstrate that the recovery operation can be sustained for longer periods.

6.3.2 A facility owner or operator submitting a response plan shall provide data that supports the effective daily recovery capacities for the oil recovery devices listed. The following is an example of these calculations:

(1) A weir skimmer identified in a response plan has a manufacturer's rated throughput at the pump of 267 gallons per minute (gpm).

267 gpm=381 barrels per hour (bph)

R=381 bph×24 hr/day×0.2=1,829 barrels per day

(2) After testing using ASTM procedures, the skimmer's oil recovery rate is determined to be 220 gpm. The facility owner or operator identifies sufficient resources available to support operations for 12 hours per day.

220 gpm=314 bph
R=314 bph×12 hr/day=3,768 barrels per day

(3) The facility owner or operator will be able to use the higher capacity if sufficient temporary oil storage capacity is available. Determination of alternative efficiency factors under section 6.2 of this appendix or the acceptability of an alternative effective daily recovery capacity under section 6.3 of this appendix will be made by the Regional Administrator as deemed appropriate.

7.0 Calculating Planning Volumes for a Worst Case Discharge—Petroleum Oils and Non-Petroleum Oils Other Than Animal Fats and Vegetable Oils

7.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to evaporative and natural dissipation, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline. The procedures for non-petroleum oils other than animal fats and vegetable oils are discussed in section 7.7 of this appendix.

7.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

7.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, 4, 5) or non-persistent (Group 1)]; and the facility's specific operating area. See sections 1.2.3 and 1.2.8 of this appendix for the definitions of non-persistent and persistent oils, respectively. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 2 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 2 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

7.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 3 of this appendix. Facilities that handle, store, or transport oil from different petroleum groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

7.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of an oil discharge. For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

7.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 2 of this appendix. The facility owner or operator shall identify and ensure the availability, by contract or other approved means as described in §112.2, of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in §112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1993 must make arrangements to identify and ensure the availability, by contract or other approved means as described in §112.2, for additional capacity to be under contract by 1998 or 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's total oil storage capacity.

7.3 The procedures discussed in sections 7.3.1–7.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Group 1 through Group 4 oils).

7.3.1 The following must be determined: the worst case discharge volume of oil for

the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility [persistent (Groups 2, 3, or 4) or non-persistent (Group 1)]; and the geographic area(s) in which the facility operates (*i.e.*, operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 2 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

7.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 7.2.2 of this appendix.

7.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

7.4 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 1 through Group 4 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for Group 1 through Group 4 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.5 The following is an example of the procedure described above in sections 7.2 and 7.3 of this appendix: A facility with a 270,000 barrel (11.3 million gallons) capacity for #6 oil (specific gravity 0.96) is located in a higher volume port area. The facility is on a peninsula and has docks on both the ocean and bay sides. The facility has four aboveground oil storage tanks with a combined total capacity of 80,000 barrels (3.36 million gallons) and no secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (90,000 barrels or 3.78 million gallons) has its own secondary containment. Two 50,000 barrel (2.1 million gallon) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 100,000 barrels (4.2 million gallons) plus sufficient freeboard.

7.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground oil storage tanks without secondary containment (80,000 barrels) plus the capacity of the largest aboveground oil storage tank inside secondary containment. The resulting worst case discharge volume is 170,000 barrels or 7.14 million gallons.

7.5.2 Because the requirements for Tiers 1, 2, and 3 for inland and nearshore exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response to 10,000 barrels per day (bpd) for Tier 1, 20,000 bpd for Tier 2, and 40,000 bpd for Tier 3. Resources for the remaining 7,850 bpd for Tier 1, 9,750 bpd for Tier 2, and 7,600 bpd for Tier 3 shall be identified but need not be contracted for in advance. The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in their response plan for the protection of fish and wildlife and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments,'' (see Appendix E to this part, section 13, for availability) and the applicable ACP. Attachment C–III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking water intakes that may be impacted in the event of a worst case discharge.

7.6 The procedures discussed in sections 7.6.1–7.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group 5 oils.

7.6.1 The owner or operator of a facility that handles, stores, or transports Group 5 oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in §112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored,, or transported.

7.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group 5 oils under section 7.6.1 of this appendix shall be capable of being deployed (on site) within 24 hours of discovery of a discharge to the area where the facility is operating.

7.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group 5 oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group 5 oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

7.7 *Non-petroleum oils other than animal fats and vegetable oils.* The procedures described in sections 7.7.1 through 7.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport non-petroleum oils other than animal fats and vegetable oils. Refer to section 11 of this appendix for information on the limitations on the use of chemical agents for inland and nearshore areas.

7.7.1 An owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must provide information in his or her plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

7.7.2 An owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must ensure that any equipment identified in a response plan is capable of operating in the conditions expected in the geographic area(s) (*i.e.,* operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

7.7.3 The owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils must identify the response resources that are available by contract or other approved means, as described in §112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of non-petroleum oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

7.7.4 Response resources identified in a response plan according to section 7.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

7.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports non-petroleum oils other than animal fats and vegetable oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual located at the facility to work with the fire department for fires of these oils. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

8.0 Determining Response Resources Required for Small Discharges—Animal Fats and Vegetable Oils

8.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a small discharge of animal fats or vegetable oils. A small discharge is defined as any discharge volume less than or equal to 2,100 gallons, but not to exceed the calculated worst case discharge. The equipment must be designed to function in the operating environment at the point of expected use.

8.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the marine transportation-related portion of the facility.

8.2.1 The USCG planning level that corresponds to EPA's ''small discharge'' is termed ''the average most probable discharge.'' A USCG rule found at 33 CFR 154.1020 defines ''the average most probable discharge'' as the lesser of 50 barrels (2,100 gallons) or 1 percent of the volume of the worst case discharge. Owners or operators of

complexes that handle, store, or transport animal fats and vegetable oils must compare oil discharge volumes for a small discharge and an average most probable discharge, and plan for whichever quantity is greater.

8.3 The response resources shall, as appropriate, include:

8.3.1 One thousand feet of containment boom (or, for complexes with marine transfer components, 1,000 feet of containment boom or two times the length of the largest vessel that regularly conducts oil transfers to or from the facility, whichever is greater), and a means of deploying it within 1 hour of the discovery of a discharge;

8.3.2 Oil recovery devices with an effective daily recovery capacity equal to the amount of oil discharged in a small discharge or greater which is available at the facility within 2 hours of the detection of a discharge; and

8.3.3 Oil storage capacity for recovered oily material indicated in section 12.2 of this appendix.

9.0 Determining Response Resources Required for Medium Discharges—Animal Fats and Vegetable Oils

9.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of animal fats or vegetable oils for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

9.2 Complexes that are regulated by EPA and the USCG must also consider planning quantities for the transportation-related transfer portion of the facility. Owners or operators of complexes that handle, store, or transport animal fats or vegetable oils must plan for oil discharge volumes for a medium discharge. For non-petroleum oils, there is no USCG planning level that directly corresponds to EPA's ''medium discharge.'' Although the USCG does not have planning requirements for medium discharges, they do have requirements (at 33 CFR 154.545) to identify equipment to contain oil resulting from an operational discharge.

9.3 Oil recovery devices identified to meet the applicable medium discharge volume planning criteria must be located such that they are capable of arriving on-scene within 6 hours in higher volume port areas and the Great Lakes and within 12 hours in all other areas. Higher volume port areas and Great Lakes areas are defined in section 1.1 of Appendix C to this part.

9.4 Because rapid control, containment, and removal of oil are critical to reduce discharge impact, the owner or operator must determine response resources using an effective daily recovery capacity for oil recovery devices equal to 50 percent of the planning volume applicable for the facility as determined in section 9.1 of this appendix. The effective daily recovery capacity for oil recovery devices identified in the plan must be determined using the criteria in section 6 of this appendix.

9.5 In addition to oil recovery capacity, the plan shall, as appropriate, identify sufficient quantity of containment boom available, by contract or other approved means as described in §112.2, to arrive within the required response times for oil collection and containment and for protection of fish and wildlife and sensitive environments. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (59 FR 14713–22, March 29, 1994) and the applicable ACP. Although 40 CFR part 112 does not set required quantities of boom for oil collection and containment, the response plan shall identify and ensure, by contract or other approved means as described in §112.2, the availability of the quantity of boom identified in the plan for this purpose.

9.6 The plan must indicate the availability of temporary storage capacity to meet section 12.2 of this appendix. If available storage capacity is insufficient to meet this level, then the effective daily recovery capacity must be derated (downgraded) to the limits of the available storage capacity.

9.7 The following is an example of a medium discharge volume planning calculation for equipment identification in a higher volume port area:

The facility's largest aboveground storage tank volume is 840,000 gallons. Ten percent of this capacity is 84,000 gallons. Because 10 percent of the facility's largest tank, or 84,000 gallons, is greater than 36,000 gallons, 36,000 gallons is used as the planning volume. The effective daily recovery capacity is 50 percent of the planning volume, or 18,000 gallons per day. The ability of oil recovery devices to meet this capacity must be calculated using the procedures in section 6 of this appendix. Temporary storage capacity available on-scene must equal twice the daily recovery capacity as indicated in section 12.2 of this appendix, or 36,000 gallons per day. This is the information the facility owner or operator must use to identify and ensure the availability of the required response resources, by contract or other approved means as described in §112.2. The facility owner shall also identify how much boom is available for use.

10.0 Calculating Planning Volumes for a Worst Case Discharge—Animal Fats and Vegetable Oils.

10.1 A facility owner or operator shall plan for a response to the facility's worst case discharge. The planning for on-water oil recovery must take into account a loss of some oil to the environment due to physical, chemical, and biological processes, potential increases in volume due to emulsification, and the potential for deposition of oil on the shoreline or on sediments. The response planning procedures for animal fats and vegetable oils are discussed in section 10.7 of this appendix. You may use alternate response planning procedures for animal fats and vegetable oils if those procedures result in environmental protection equivalent to that provided by the procedures in section 10.7 of this appendix.

10.2 The following procedures must be used by a facility owner or operator in determining the required on-water oil recovery capacity:

10.2.1 The following must be determined: the worst case discharge volume of oil in the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (Groups A, B, C); and the facility's specific operating area. See sections 1.2.1 and 1.2.9 of this appendix for the definitions of animal fats and vegetable oils and groups thereof. Facilities that handle, store, or transport oil from different oil groups must calculate each group separately, unless the oil group constitutes 10 percent or less by volume of the facility's total oil storage capacity. This information is to be used with Table 6 of this appendix to determine the percentages of the total volume to be used for removal capacity planning. Table 6 of this appendix divides the volume into three categories: oil lost to the environment; oil deposited on the shoreline; and oil available for on-water recovery.

10.2.2 The on-water oil recovery volume shall, as appropriate, be adjusted using the appropriate emulsification factor found in Table 7 of this appendix. Facilities that handle, store, or transport oil from different groups must compare the on-water recovery volume for each oil group (unless the oil group constitutes 10 percent or less by volume of the facility's total storage capacity) and use the calculation that results in the largest on-water oil recovery volume to plan for the amount of response resources for a worst case discharge.

10.2.3 The adjusted volume is multiplied by the on-water oil recovery resource mobilization factor found in Table 4 of this appendix from the appropriate operating area and response tier to determine the total on-water oil recovery capacity in barrels per day that must be identified or contracted to arrive on-scene within the applicable time for each response tier. Three tiers are specified. For higher volume port areas, the contracted tiers of resources must be located such that they are capable of arriving on-scene within 6 hours for Tier 1, 30 hours for Tier 2, and 54 hours for Tier 3 of the discovery of a discharge. For all other rivers and canals, inland, nearshore areas, and the Great Lakes, these tiers are 12, 36, and 60 hours.

10.2.4 The resulting on-water oil recovery capacity in barrels per day for each tier is used to identify response resources necessary to sustain operations in the applicable operating area. The equipment shall be capable of sustaining operations for the time period specified in Table 6 of this appendix. The facility owner or operator shall identify and ensure, by contract or other approved means as described in §112.2, the availability of sufficient oil spill recovery devices to provide the effective daily oil recovery capacity required. If the required capacity exceeds the applicable cap specified in Table 5 of this appendix, then a facility owner or operator shall ensure, by contract or other approved means as described in §112.2, only for the quantity of resources required to meet the cap, but shall identify sources of additional resources as indicated in section 5.4 of this appendix. The owner or operator of a facility whose planning volume exceeded the cap in 1998 must make arrangements to identify and ensure, by contract or other approved means as described in §112.2, the availability of additional capacity to be under contract by 2003, as appropriate. For a facility that handles multiple groups of oil, the required effective daily recovery capacity for each oil group is calculated before applying the cap. The oil group calculation resulting in the largest on-water recovery volume must be used to plan for the amount of response resources for a worst case discharge, unless the oil group comprises 10 percent or less by volume of the facility's oil storage capacity.

10.3 The procedures discussed in sections 10.3.1 through 10.3.3 of this appendix must be used to calculate the planning volume for identifying shoreline cleanup capacity (for Groups A and B oils).

10.3.1 The following must be determined: the worst case discharge volume of oil for the facility; the appropriate group(s) for the types of oil handled, stored, or transported at the facility (Groups A or B); and the geographic area(s) in which the facility operates (i.e., operating areas). For a facility handling, storing, or transporting oil from different groups, each group must be calculated separately. Using this information, Table 6 of this appendix must be used to determine the percentages of the total volume to be used for shoreline cleanup resource planning.

10.3.2 The shoreline cleanup planning volume must be adjusted to reflect an emulsification factor using the same procedure as described in section 10.2.2 of this appendix.

10.3.3 The resulting volume shall be used to identify an oil spill removal organization with the appropriate shoreline cleanup capability.

10.4 A response plan must identify response resources with fire fighting capability appropriate for the risk of fire and explosion at the facility from the discharge or threat of discharge of oil. The owner or operator of a facility that handles, stores, or transports Group A or B oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The facility owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan must also identify an individual to work with the fire department for Group A or B oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to a worst case scenario. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

10.5 The following is an example of the procedure described in sections 10.2 and 10.3 of this appendix. A facility with a 37.04 million gallon (881,904 barrel) capacity of several types of vegetable oils is located in the Inland Operating Area. The vegetable oil with the highest specific gravity stored at the facility is soybean oil (specific gravity 0.922, Group B vegetable oil). The facility has ten aboveground oil storage tanks with a combined total capacity of 18 million gallons (428,571 barrels) and without secondary containment. The remaining facility tanks are inside secondary containment structures. The largest aboveground oil storage tank (3 million gallons or 71,428 barrels) has its own secondary containment. Two 2.1 million gallon (50,000 barrel) tanks (that are not connected by a manifold) are within a common secondary containment tank area, which is capable of holding 4.2 million gallons (100,000 barrels) plus sufficient freeboard.

10.5.1 The worst case discharge for the facility is calculated by adding the capacity of all aboveground vegetable oil storage tanks without secondary containment (18.0 million gallons) plus the capacity of the largest aboveground storage tank inside secondary containment (3.0 million gallons). The resulting worst case discharge is 21 million gallons or 500,000 barrels.

10.5.2 With a specific worst case discharge identified, the planning volume for on-water recovery can be identified as follows:

Worst case discharge: 21 million gallons (500,000 barrels) of Group B vegetable oil
Operating Area: Inland
Planned percent recovered floating vegetable oil (from Table 6, column Nearshore/Inland/Great Lakes): Inland, Group B is 20%
Emulsion factor (from Table 7): 2.0
Planning volumes for on-water recovery: 21,000,000 gallons × 0.2 × 2.0 = 8,400,000 gallons or 200,000 barrels.
Determine required resources for on-water recovery for each of the three tiers using mobilization factors (from Table 4, column Inland/Nearshore/Great Lakes)

Inland Operating Area	Tier 1	Tier 2	Tier 3
Mobilization factor by which you multiply planning volume	.15	.25	.40
Estimated Daily Recovery Capacity (bbls)	30,000	50,000	80,000

10.5.3 Because the requirements for On-Water Recovery Resources for Tiers 1, 2, and 3 for Inland Operating Area exceed the caps identified in Table 5 of this appendix, the facility owner will contract for a response of 12,500 barrels per day (bpd) for Tier 1, 25,000 bpd for Tier 2, and 50,000 bpd for Tier 3. Resources for the remaining 17,500 bpd for Tier 1, 25,000 bpd for Tier 2, and 30,000 bpd for Tier 3 shall be identified but need not be contracted for in advance.

10.5.4 With the specific worst case discharge identified, the planning volume of onshore recovery can be identified as follows:

Worst case discharge: 21 million gallons (500,000 barrels) of Group B vegetable oil
Operating Area: Inland
Planned percent recovered floating vegetable oil from onshore (from Table 6, column Nearshore/Inland/Great Lakes): Inland, Group B is 65%
Emulsion factor (from Table 7): 2.0
Planning volumes for shoreline recovery: 21,000,000 gallons × 0.65 × 2.0 = 27,300,000 gallons or 650,000 barrels

10.5.5 The facility owner or operator shall, as appropriate, also identify or contract for quantities of boom identified in the response plan for the protection of fish and wildlife and sensitive environments within the area potentially impacted by a worst case discharge from the facility. For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments,'' (see Appendix E to this part, section 13, for availability) and the applicable ACP. Attachment C–III to Appendix C provides a method for calculating a planning distance to fish and wildlife and sensitive environments and public drinking

water intakes that may be adversely affected in the event of a worst case discharge.

10.6 The procedures discussed in sections 10.6.1 through 10.6.3 of this appendix must be used to determine appropriate response resources for facilities with Group C oils.

10.6.1 The owner or operator of a facility that handles, stores, or transports Group C oils shall, as appropriate, identify the response resources available by contract or other approved means, as described in §112.2. The equipment identified in a response plan shall, as appropriate, include:

(1) Sonar, sampling equipment, or other methods for locating the oil on the bottom or suspended in the water column;

(2) Containment boom, sorbent boom, silt curtains, or other methods for containing the oil that may remain floating on the surface or to reduce spreading on the bottom;

(3) Dredges, pumps, or other equipment necessary to recover oil from the bottom and shoreline;

(4) Equipment necessary to assess the impact of such discharges; and

(5) Other appropriate equipment necessary to respond to a discharge involving the type of oil handled, stored, or transported.

10.6.2 Response resources identified in a response plan for a facility that handles, stores, or transports Group C oils under section 10.6.1 of this appendix shall be capable of being deployed on scene within 24 hours of discovery of a discharge.

10.6.3 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports Group C oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for Group C oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge. The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

10.7 The procedures described in sections 10.7.1 through 10.7.5 of this appendix must be used to determine appropriate response plan development and evaluation criteria for facilities that handle, store, or transport animal fats and vegetable oils. Refer to section 11 of this appendix for information on the limitations on the use of chemical agents for inland and nearshore areas.

10.7.1 An owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must provide information in the response plan that identifies:

(1) Procedures and strategies for responding to a worst case discharge of animal fats and vegetable oils to the maximum extent practicable; and

(2) Sources of the equipment and supplies necessary to locate, recover, and mitigate such a discharge.

10.7.2 An owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must ensure that any equipment identified in a response plan is capable of operating in the geographic area(s) (*i.e.,* operating environments) in which the facility operates using the criteria in Table 1 of this appendix. When evaluating the operability of equipment, the facility owner or operator must consider limitations that are identified in the appropriate ACPs, including:

(1) Ice conditions;

(2) Debris;

(3) Temperature ranges; and

(4) Weather-related visibility.

10.7.3. The owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils must identify the response resources that are available by contract or other approved means, as described in §112.2. The equipment described in the response plan shall, as appropriate, include:

(1) Containment boom, sorbent boom, or other methods for containing oil floating on the surface or to protect shorelines from impact;

(2) Oil recovery devices appropriate for the type of animal fat or vegetable oil carried; and

(3) Other appropriate equipment necessary to respond to a discharge involving the type of oil carried.

10.7.4 Response resources identified in a response plan according to section 10.7.3 of this appendix must be capable of commencing an effective on-scene response within the applicable tier response times in section 5.3 of this appendix.

10.7.5 A response plan must identify response resources with fire fighting capability. The owner or operator of a facility that handles, stores, or transports animal fats and vegetable oils that does not have adequate fire fighting resources located at the facility or that cannot rely on sufficient local fire fighting resources must identify adequate fire fighting resources. The owner or operator shall ensure, by contract or other approved means as described in §112.2, the availability of these resources. The response plan shall also identify an individual located at the facility to work with the fire department for animal fat and vegetable oil fires. This individual shall also verify that sufficient well-trained fire fighting resources are available within a reasonable response time to respond to a worst case discharge.

The individual may be the qualified individual identified in the response plan or another appropriate individual located at the facility.

11.0 Determining the Availability of Alternative Response Methods

11.1 For chemical agents to be identified in a response plan, they must be on the NCP Product Schedule that is maintained by EPA. (Some States have a list of approved dispersants for use within State waters. Not all of these State-approved dispersants are listed on the NCP Product Schedule.)

11.2 Identification of chemical agents in the plan does not imply that their use will be authorized. Actual authorization will be governed by the provisions of the NCP and the applicable ACP.

12.0 Additional Equipment Necessary to Sustain Response Operations

12.1 A facility owner or operator shall identify sufficient response resources available, by contract or other approved means as described in §112.2, to respond to a medium discharge of animal fats or vegetables oils for that facility. This will require response resources capable of containing and collecting up to 36,000 gallons of oil or 10 percent of the worst case discharge, whichever is less. All equipment identified must be designed to operate in the applicable operating environment specified in Table 1 of this appendix.

12.2 A facility owner or operator shall evaluate the availability of adequate temporary storage capacity to sustain the effective daily recovery capacities from equipment identified in the plan. Because of the inefficiencies of oil spill recovery devices, response plans must identify daily storage capacity equivalent to twice the effective daily recovery capacity required on-scene. This temporary storage capacity may be reduced if a facility owner or operator can demonstrate by waste stream analysis that the efficiencies of the oil recovery devices, ability to decant waste, or the availability of alternative temporary storage or disposal locations will reduce the overall volume of oily material storage.

12.3 A facility owner or operator shall ensure that response planning includes the capability to arrange for disposal of recovered oil products. Specific disposal procedures will be addressed in the applicable ACP.

13.0 References and Availability

13.1 All materials listed in this section are part of EPA's rulemaking docket and are located in the Superfund Docket, 1235 Jefferson Davis Highway, Crystal Gateway 1, Arlington, Virginia 22202, Suite 105 (Docket Numbers SPCC–2P, SPCC–3P, and SPCC–9P). The docket is available for inspection between 9 a.m. and 4 p.m., Monday through Friday, excluding Federal holidays.

Appointments to review the docket can be made by calling 703–603–9232. Docket hours are subject to change. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services.

13.2 The docket will mail copies of materials to requestors who are outside the Washington, DC metropolitan area. Materials may be available from other sources, as noted in this section. As provided in 40 CFR part 2, a reasonable fee may be charged for copying services. The RCRA/Superfund Hotline at 800–424–9346 may also provide additional information on where to obtain documents. To contact the RCRA/Superfund Hotline in the Washington, DC metropolitan area, dial 703–412–9810. The Telecommunications Device for the Deaf (TDD) Hotline number is 800–553–7672, or, in the Washington, DC metropolitan area, 703–412–3323.

13.3 Documents

(1) National Preparedness for Response Exercise Program (PREP). The PREP draft guidelines are available from United States Coast Guard Headquarters (G-MEP-4), 2100 Second Street, SW., Washington, DC 20593. (See 58 FR 53990–91, October 19, 1993, Notice of Availability of PREP Guidelines).

(2) ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments (published in the FEDERAL REGISTER by DOC/NOAA at 59 FR 14713–22, March 29, 1994.). The guidance is available in the Superfund Docket (see sections 13.1 and 13.2 of this appendix).

(3) ASTM Standards. ASTM F 715, ASTM F 989, ASTM F 631–99, ASTM F 808–83 (1999). The ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

(4) Response Plans for Marine Transportation-Related Facilities, Interim Final Rule. Published by USCG, DOT at 58 FR 7330–76, February 5, 1993.

TABLE 1 TO APPENDIX E—RESPONSE RESOURCE OPERATING CRITERIA

Oil Recovery Devices		
Operating environment	Significant wave height [1]	Sea state
Rivers and Canals	≤ 1 foot	1
Inland	≤ 3 feet	2

TABLE 1 TO APPENDIX E—RESPONSE RESOURCE OPERATING CRITERIA—Continued

Oil Recovery Devices		
Operating environment	Significant wave height[1]	Sea state
Great Lakes	≤ 4 feet	2–3
Ocean	≤ 6 feet	3–4

Boom				
Boom property	Use			
	Rivers and canals	Inland	Great Lakes	Ocean
Significant Wave Height[1]	≤ 1	≤ 3	≤ 4	≤ 6
Sea State	1	2	2–3	3–4
Boom height—inches (draft plus freeboard)	6–18	18–42	18–42	≥42
Reserve Buoyancy to Weight Ratio	2:1	2:1	2:1	3:1 to 4:1
Total Tensile Strength—pounds	4,500	15,000–20,000.	15,000–20,000.	≥20,000
Skirt Fabric Tensile Strength—pounds	200	300	300	500
Skirt Fabric Tear Strength—pounds	100	100	100	125

[1] Oil recovery devices and boom *shall* be at least capable of operating in wave heights up to and including the values listed in Table 1 for each operating environment.

TABLE 2 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE FOR PETROLEUM OILS

Spill location	Rivers and canals			Nearshore/Inland/Great Lakes		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group[1]	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore	Percent natural dissipation	Percent recovered floating oil	Percent oil onshore
1—Non-persistent oils	80	10	10	80	20	10
2—Light crudes	40	15	45	50	50	30
3—Medium crudes and fuels	20	15	65	30	50	50
4—Heavy crudes and fuels	5	20	75	10	50	70

[1] The response resource considerations for non-petroleum oils other than animal fats and vegetable oils are outlined in section 7.7 of this appendix.

NOTE: Group 5 oils are defined in section 1.2.8 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.

TABLE 3 TO APPENDIX E—EMULSIFICATION FACTORS FOR PETROLEUM OIL GROUPS[1]

Non-Persistent Oil:	
Group 1	1.0
Persistent Oil:	
Group 2	1.8
Group 3	2.0
Group 4	1.4
Group 5 oils are defined in section 1.2.7 of this appendix; the response resource considerations are outlined in section 7.6 of this appendix.	

[1] See sections 1.2.2 and 1.2.7 of this appendix for group designations for non-persistent and persistent oils, respectively.

TABLE 4 TO APPENDIX E—ON-WATER OIL RECOVERY RESOURCE MOBILIZATION FACTORS

Operating area	Tier 1	Tier 2	Tier 3
Rivers and Canals	0.30	0.40	0.60
Inland/Nearshore Great Lakes	0.15	0.25	0.40

Note: These mobilization factors are for total resources mobilized, not incremental response resources.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA

	Tier 1	Tier 2	Tier 3
February 18, 1993:			
All except Rivers & Canals, Great Lakes	10K bbls/day	20K bbls/day	40K bbls/day.
Great Lakes	5K bbls/day	10K bbls/day	20K bbls/day.
Rivers & Canals	1.5K bbls/day	3.0K bbls/day	6.0K bbls/day.

TABLE 5 TO APPENDIX E—RESPONSE CAPABILITY CAPS BY OPERATING AREA—Continued

	Tier 1	Tier 2	Tier 3
February 18, 1998:			
All except Rivers & Canals, Great Lakes	12.5K bbls/day	25K bbls/day	50K bbls/day.
Great Lakes	6.35K bbls/day	12.3K bbls/day	25K bbls/day.
Rivers & Canals	1.875K bbls/day	3.75K bbls/day	7.5K bbls/day.
February 18, 2003:			
All except Rivers & Canals, Great Lakes	TBD	TBD	TBD.
Great Lakes	TBD	TBD	TBD.
Rivers & Canals	TBD	TBD	TBD.

Note: The caps show cumulative overall effective daily recovery capacity, not incremental increases.
TBD=To Be Determined.

TABLE 6 TO APPENDIX E—REMOVAL CAPACITY PLANNING TABLE FOR ANIMAL FATS AND VEGETABLE OILS

Spill location	Rivers and canals			Nearshore/Inland/Great Lakes		
Sustainability of on-water oil recovery	3 days			4 days		
Oil group [1]	Percent natural loss	Percent recovered floating oil	Percent recovered oil from onshore	Percent natural loss	Percent recovered floating oil	Percent recovered oil from onshore
Group A	40	15	45	50	20	30
Group B	20	15	65	30	20	50

[1] Substances with a specific gravity greater than 1.0 generally sink below the surface of the water. Response resource considerations are outlined in section 10.6 of this appendix. The owner or operator of the facility is responsible for determining appropriate response resources for Group C oils including locating oil on the bottom or suspended in the water column; containment boom or other appropriate methods for containing oil that may remain floating on the surface; and dredges, pumps, or other equipment to recover animal fats or vegetable oils from the bottom and shoreline.

NOTE: Group C oils are defined in sections 1.2.1 and 1.2.9 of this appendix; the response resource procedures are discussed in section 10.6 of this appendix.

TABLE 7 TO APPENDIX E—EMULSIFICATION FACTORS FOR ANIMAL FATS AND VEGETABLE OILS

Oil Group [1]:	
Group A	1.0
Group B	2.0

[1] Substances with a specific gravity greater than 1.0 generally sink below the surface of the water. Response resource considerations are outlined in section 10.6 of this appendix. The owner or operator of the facility is responsible for determining appropriate response resources for Group C oils including locating oil on the bottom or suspended in the water column; containment boom or other appropriate methods for containing oil that may remain floating on the surface; and dredges, pumps, or other equipment to recover animal fats or vegetable oils from the bottom and shoreline.

NOTE: Group C oils are defined in sections 1.2.1 and 1.2.9 of this appendix; the response resource procedures are discussed in section 10.6 of this appendix.

ATTACHMENTS TO APPENDIX E

Attachment E-1 --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) _____ (A)

Step (B) Oil Group[1] (Table 3 and section 1.2 of this appendix) . _____

Step (C) Operating Area (choose one) . . . . ☐ Near shore/Inland Great Lakes ☐ or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
_____	_____	_____
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step(A)}}{100}$ _____ (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ . . . . _____ (E2)

Step (F) Emulsification Factor
(Table 3 of this appendix) . . . . . _____ (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
_____	_____	_____
(G1)	(G2)	(G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-1 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) . . . . . [ ]

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

Attachment E-1 Example --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) 170,000 (A)

Step (B) Oil Group[1] (Table 3 and section 1.2 of this appendix) . 4

Step (C) Operating Area (choose one) . . [X] Near shore/Inland Great Lakes [ ] or Rivers and Canals

Step (D) Percentages of Oil (Table 2 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
10	50	70
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ 85,000 (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ 119,000 (E2)

Step (F) Emulsification Factor (Table 3 of this appendix) . . . . . 1.4 (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor (Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
0.15	0.25	0.40
(G1)	(G2)	(G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-1 Example (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Petroleum Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
17,850	29,750	47,600
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) 166,600

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
10,000	20,000	40,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
7,850	9,750	7,600
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

Attachment E-2 --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) _____ (A)

Step (B) Oil Group[1] (Table 7 and section 1.2 of this appendix) . _____

Step (C) Operating Area (choose one) . . . . ☐ Near shore/Inland Great Lakes ☐ or Rivers and Canals

Step (D) Percentages of Oil (Table 6 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
_____	_____	_____
(D1)	(D2)	(D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ _____ (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ . . . _____ (E2)

Step (F) Emulsification Factor
(Table 7 of this appendix) . . . . . _____ (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor
(Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
_____	_____	_____
(G1)	(G2)	(G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-2 (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) . . . . [ ]

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

Attachment E-2 Example --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils

Part I Background Information

Step (A) Calculate Worst Case Discharge in barrels (Appendix D) . . . . . 500,000 (A)

Step (B) Oil Group[1] (Table 7 and section 1.2 of this appendix) . . . . . B

Step (C) Operating Area (choose one) [X] Near shore/Inl and Great Lakes [ ] or Rivers and Canals

Step (D) Percentages of Oil (Table 6 of this appendix)

Percent Lost to Natural Dissipation	Percent Recovered Floating Oil	Percent Oil Onshore
30 (D1)	20 (D2)	50 (D3)

Step (E1) On-Water Oil Recovery $\frac{\text{Step (D2) x Step (A)}}{100}$ = 100,000 (E1)

Step (E2) Shoreline Recovery $\frac{\text{Step (D3) x Step (A)}}{100}$ = 250,000 (E2)

Step (F) Emulsification Factor (Table 7 of this appendix) . . . . . 2.0 (F)

Step (G) On-Water Oil Recovery Resource Mobilization Factor (Table 4 of this appendix)

Tier 1	Tier 2	Tier 3
0.15 (G1)	0.25 (G2)	0.40 (G3)

[1] A facility that handles, stores, or transports multiple groups of oil must do separate calculations for each oil group on site except for those oil groups that constitute 10 percent or less by volume of the total oil storage capacity at the facility. For purposes of this calculation, the volumes of all products in an oil group must be summed to determine the percentage of the facility's total oil storage capacity.

Attachment E-2 Example (continued) --
Worksheet to Plan Volume of Response Resources
for Worst Case Discharge - Animal Fats and Vegetable Oils (continued)

Part II On-Water Oil Recovery Capacity (barrels/day)

Tier 1	Tier 2	Tier 3
30,000	50,000	80,000
Step (E1) x Step (F) x Step (G1)	Step (E1) x Step (F) x Step (G2)	Step (E1) x Step (F) x Step (G3)

Part III Shoreline Cleanup Volume (barrels) 500,000

Step (E2) x Step (F)

Part IV On-Water Response Capacity By Operating Area
(Table 5 of this appendix)
(Amount needed to be contracted for in barrels/day)

Tier 1	Tier 2	Tier 3
12,500	25,000	50,000
(J1)	(J2)	(J3)

Part V On-Water Amount Needed to be Identified, but not Contracted for in Advance (barrels/day)

Tier 1	Tier 2	Tier 3
17,500	25,000	30,000
Part II Tier 1 - Step (J1)	Part II Tier 2 - Step (J2)	Part II Tier 3 - Step (J3)

NOTE: To convert from barrels/day to gallons/day, multiply the quantities in Parts II through V by 42 gallons/barrel.

[59 FR 34111, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40806, 40807, June 30, 2000; 65 FR 47325, Aug. 2, 2000; 66 FR 34560, June 29, 2001]

APPENDIX F TO PART 112—FACILITY-SPECIFIC RESPONSE PLAN

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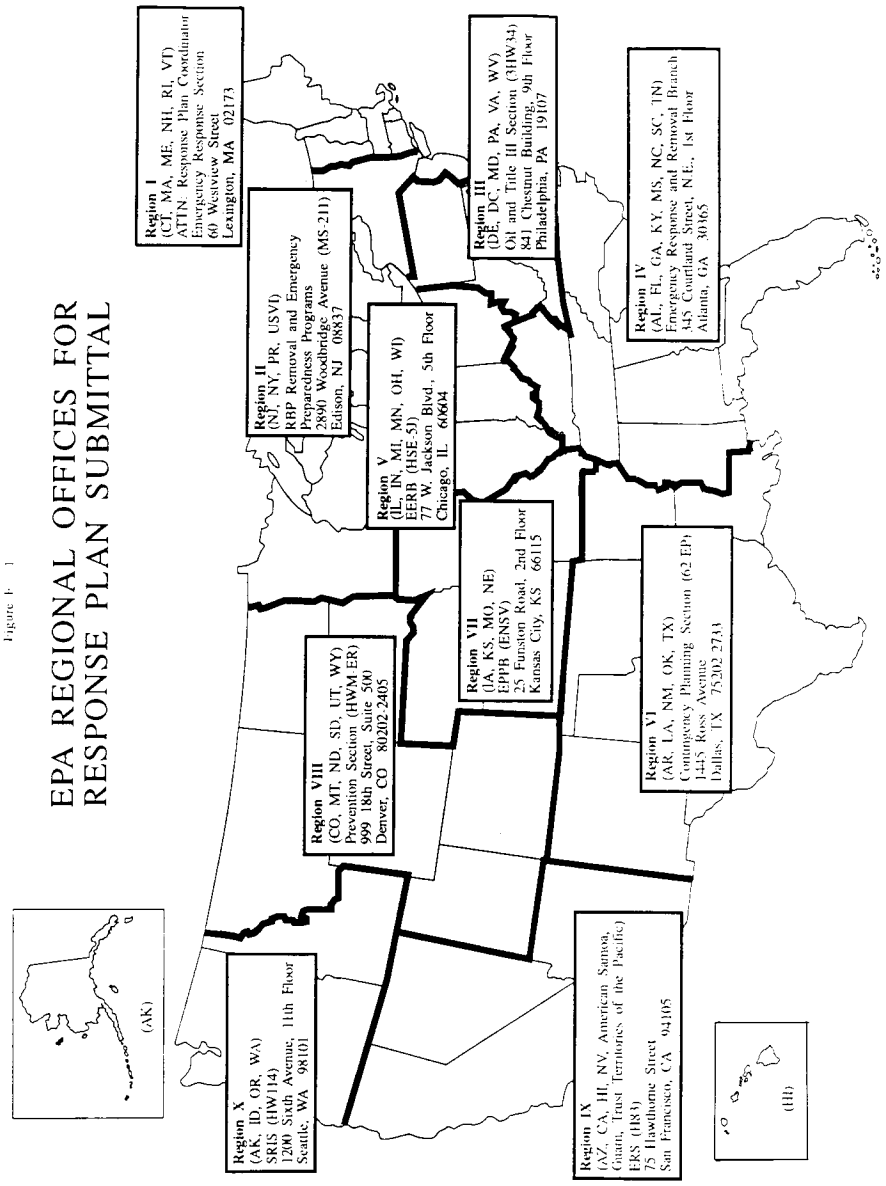
1.0 Model Facility-Specific Response Plan

(A) Owners or operators of facilities regulated under this part which pose a threat of substantial harm to the environment by discharging oil into or on navigable waters or adjoining shorelines are required to prepare and submit facility-specific response plans to EPA in accordance with the provisions in this appendix. This appendix further describes the required elements in §112.20(h).

(B) Response plans must be sent to the appropriate EPA Regional office. Figure F–1 of this Appendix lists each EPA Regional office and the address where owners or operators must submit their response plans. Those facilities deemed by the Regional Administrator (RA) to pose a threat of significant and substantial harm to the environment will have their plans reviewed and approved by EPA. In certain cases, information required in the model response plan is similar to information currently maintained in the facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan as required by 40 CFR 112.3. In these cases, owners or operators may reproduce the information and include a photocopy in the response plan.

(C) A complex may develop a single response plan with a set of core elements for all regulating agencies and separate sections for the non-transportation-related and transportation-related components, as described in §112.20(h). Owners or operators of large facilities that handle, store, or transport oil at more than one geographically distinct location (e.g., oil storage areas at opposite ends of a single, continuous parcel of property) shall, as appropriate, develop separate sections of the response plan for each storage area.



1.1 Emergency Response Action Plan

Several sections of the response plan shall be co-located for easy access by response personnel during an actual emergency or oil discharge. This collection of sections shall be called the Emergency Response Action Plan. The Agency intends that the Action Plan contain only as much information as is necessary to combat the discharge and be arranged so response actions are not delayed. The Action Plan may be arranged in a number of ways. For example, the sections of the Emergency Response Action Plan may be photocopies or condensed versions of the

forms included in the associated sections of the response plan. Each Emergency Response Action Plan section may be tabbed for quick reference. The Action Plan shall be maintained in the front of the same binder that contains the complete response plan or it shall be contained in a separate binder. In the latter case, both binders shall be kept together so that the entire plan can be accessed by the qualified individual and appropriate spill response personnel. The Emergency Response Action Plan shall be made up of the following sections:

1. Qualified Individual Information (Section 1.2) partial
2. Emergency Notification Phone List (Section 1.3.1) partial
3. Spill Response Notification Form (Section 1.3.1) partial
4. Response Equipment List and Location (Section 1.3.2) complete
5. Response Equipment Testing and Deployment (Section 1.3.3) complete
6. Facility Response Team (Section 1.3.4) partial
7. Evacuation Plan (Section 1.3.5) condensed
8. Immediate Actions (Section 1.7.1) complete
9. Facility Diagram (Section 1.9) complete

1.2 Facility Information

The facility information form is designed to provide an overview of the site and a description of past activities at the facility. Much of the information required by this section may be obtained from the facility's existing SPCC Plan.

1.2.1 *Facility name and location:* Enter facility name and street address. Enter the address of corporate headquarters only if corporate headquarters are physically located at the facility. Include city, county, state, zip code, and phone number.

1.2.2 *Latitude and Longitude:* Enter the latitude and longitude of the facility. Include degrees, minutes, and seconds of the main entrance of the facility.

1.2.3 *Wellhead Protection Area:* Indicate if the facility is located in or drains into a wellhead protection area as defined by the Safe Drinking Water Act of 1986 (SDWA).[1] The response plan requirements in the Wellhead Protection Program are outlined by the State or Territory in which the facility resides.

1.2.4 *Owner/operator:* Write the name of the company or person operating the facility and the name of the person or company that owns the facility, if the two are different. List the address of the owner, if the two are different.

1.2.5 *Qualified Individual:* Write the name of the qualified individual for the entire facility. If more than one person is listed, each individual indicated in this section shall have full authority to implement the facility response plan. For each individual, list: name, position, home and work addresses (street addresses, not P.O. boxes), emergency phone number, and specific response training experience.

1.2.6 *Date of Oil Storage Start-up:* Enter the year which the present facility first started storing oil.

1.2.7 *Current Operation:* Briefly describe the facility's operations and include the North American Industrial Classification System (NAICS) code.

1.2.8 *Dates and Type of Substantial Expansion:* Include information on expansions that have occurred at the facility. Examples of such expansions include, but are not limited to: Throughput expansion, addition of a product line, change of a product line, and installation of additional oil storage capacity. The data provided shall include all facility historical information and detail the expansion of the facility. An example of substantial expansion is any material alteration of the facility which causes the owner or operator of the facility to re-evaluate and increase the response equipment necessary to adequately respond to a worst case discharge from the facility.

Date of Last Update: _____

FACILITY INFORMATION FORM

Facility Name: _____
Location (Street Address): _____
City: _____ State: _____ Zip: _____
County: _____ Phone Number: ( ) _____
Latitude: _____ Degrees _____ Minutes _____ Seconds
Longitude: _____ Degrees _____ Minutes _____ Seconds
Wellhead Protection Area: _____
Owner: _____
Owner Location (Street Address): _____
(if different from Facility Address)
City: _____ State:_____ Zip: _____
County: _____ Phone Number: ( ) _____
Operator (if not Owner): _____
Qualified Individual(s): (attach additional sheets if more than one)
Name: _____
Position: _____
Work Address: _____
Home Address: _____
Emergency Phone Number: ( ) _____

[1] A wellhead protection area is defined as the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. For further information regarding State and territory protection programs, facility owners or operators may contact the SDWA Hotline at 1–800–426–4791.

Date of Oil Storage Start-up: _____
Current Operations: _____

_____

_____

Date(s) and Type(s) of Substantial Expansion(s): _____

_____

(Attach additional sheets if necessary)

1.3 Emergency Response Information

(A) The information provided in this section shall describe what will be needed in an actual emergency involving the discharge of oil or a combination of hazardous substances and oil discharge. The Emergency Response Information section of the plan must include the following components:

(1) The information provided in the Emergency Notification Phone List in section 1.3.1 identifies and prioritizes the names and phone numbers of the organizations and personnel that need to be notified immediately in the event of an emergency. This section shall include all the appropriate phone numbers for the facility. These numbers must be verified each time the plan is updated. The contact list must be accessible to all facility employees to ensure that, in case of a discharge, any employee on site could immediately notify the appropriate parties.

(2) The Spill Response Notification Form in section 1.3.1 creates a checklist of information that shall be provided to the National Response Center (NRC) and other response personnel. All information on this checklist must be known at the time of notification, or be in the process of being collected. This notification form is based on a similar form used by the NRC. Note: Do not delay spill notification to collect the information on the list.

(3) Section 1.3.2 provides a description of the facility's list of emergency response equipment and location of the response equipment. When appropriate, the amount of oil that emergency response equipment can handle and any limitations (e.g., launching sites) must be described.

(4) Section 1.3.3 provides information regarding response equipment tests and deployment drills. Response equipment deployment exercises shall be conducted to ensure that response equipment is operational and the personnel who would operate the equipment in a spill response are capable of deploying and operating it. Only a representative sample of each type of response equipment needs to be deployed and operated, as long as the remainder is properly maintained. If appropriate, testing of response equipment may be conducted while it is being deployed. Facilities without facility-owned response equipment must ensure that the oil spill removal organization that is identified in the response plan to provide this response equipment certifies that the deployment exercises have been met. Refer to the National Preparedness for Response Exercise Program (PREP) Guidelines (see Appendix E to this part, section 13, for availability), which satisfy Oil Pollution Act (OPA) response exercise requirements.

(5) Section 1.3.4 lists the facility response personnel, including those employed by the facility and those under contract to the facility for response activities, the amount of time needed for personnel to respond, their responsibility in the case of an emergency, and their level of response training. Three different forms are included in this section. The Emergency Response Personnel List shall be composed of all personnel employed by the facility whose duties involve responding to emergencies, including oil discharges, even when they are not physically present at the site. An example of this type of person would be the Building Engineer-in-Charge or Plant Fire Chief. The second form is a list of the Emergency Response Contractors (both primary and secondary) retained by the facility. Any changes in contractor status must be reflected in updates to the response plan. Evidence of contracts with response contractors shall be included in this section so that the availability of resources can be verified. The last form is the Facility Response Team List, which shall be composed of both emergency response personnel (referenced by job title/position) and emergency response contractors, included in one of the two lists described above, that will respond immediately upon discovery of an oil discharge or other emergency (i.e., the first people to respond). These are to be persons normally on the facility premises or primary response contractors. Examples of these personnel would be the Facility Hazardous Materials (HAZMAT) Spill Team 1, Facility Fire Engine Company 1, Production Supervisor, or Transfer Supervisor. Company personnel must be able to respond immediately and adequately if contractor support is not available.

(6) Section 1.3.5 lists factors that must, as appropriate, be considered when preparing an evacuation plan.

(7) Section 1.3.6 references the responsibilities of the qualified individual for the facility in the event of an emergency.

(B) The information provided in the emergency response section will aid in the assessment of the facility's ability to respond to a worst case discharge and will identify additional assistance that may be needed. In addition, the facility owner or operator may want to produce a wallet-size card containing a checklist of the immediate response and notification steps to be taken in the event of an oil discharge.

1.3.1 Notification

Date of Last Update: _____

EMERGENCY NOTIFICATION PHONE LIST WHOM TO NOTIFY

Reporter's Name: _____
Date: _____
Facility Name: _____
Owner Name: _____
Facility Identification Number: _____
Date and Time of Each NRC Notification: __

Organization	Phone No.
1. National Response Center (NRC):	1–800–424–8802
2. Qualified Individual:	
Evening Phone:	
3. Company Response Team:	
Evening Phone:	
4. Federal On-Scene Coordinator (OSC) and/or Regional Response Center (RRC):	
Evening Phone(s):	
Pager Number(s):	
5. Local Response Team (Fire Dept./Co-operatives):	
6. Fire Marshall:	
Evening Phone:	
7. State Emergency Response Commission (SERC):	
Evening Phone:	
8. State Police:	
9. Local Emergency Planning Committee (LEPC):	
10. Local Water Supply System:	
Evening Phone:	
11. Weather Report:	
12. Local Television/Radio Station for Evacuation Notification:	
13. Hospitals:	

SPILL RESPONSE NOTIFICATION FORM

Reporter's Last Name: _____
First: _____
M.I.: _____
Position: _____
Phone Numbers:
Day ( ) –
Evening ( ) –
Company: _____
Organization Type: _____
Address: _____
_____
City: _____
State: _____
Zip: _____
Were Materials Discharged? _____ (Y/N) Confidential? _____ (Y/N)
Meeting Federal Obligations to Report? _____ (Y/N) Date Called: _____
Calling for Responsible Party? _____ (Y/N) Time Called: _____

Incident Description

Source and/or Cause of Incident: _____
_____
_____
_____
_____
Date of Incident: _____
Time of Incident: _____ AM/PM
Incident Address/Location: _____
_____
Nearest City:_____ State: _____ County: _____ Zip: _____
Distance from City: _____ Units of Measure: _____ Direction from City: _____
Section: _____ Township: _____ Range: _____ Borough: _____
Container Type: _____ Tank Oil Storage Capacity: _____ Units of Measure: _____
Facility Oil Storage Capacity: _____ Units of Measure: _____
Facility Latitude: _____ Degrees _____ Minutes _____ Seconds
Facility Longitude: _____ Degrees _____ Minutes _____ Seconds

Material

CHRIS Code	Discharged quantity	Unit of measure	Material Discharged in water	Quantity	Unit of measure

Response Action

Actions Taken to Correct, Control or Mitigate Incident:

_____

_____

_____

_____

Impact

Number of Injuries: _____ Number of Deaths: _____

Were there Evacuations? _____ (Y/N) Number Evacuated: _____

Was there any Damage? _____ (Y/N)

Damage in Dollars (approximate): _____

Medium Affected: _____

Description: _____

More Information about Medium: _____

_____

_____

Additional Information

Any information about the incident not recorded elsewhere in the report:

_____

_____

_____

Caller Notifications

EPA? _____ (Y/N) USCG? _____ (Y/N) State? _____ (Y/N)

Other? _____ (Y/N) Describe: _____

1.3.2 Response Equipment List

Date of Last Update:_____

FACILITY RESPONSE EQUIPMENT LIST

1. Skimmers/Pumps—Operational Status: _____

Type, Model, and Year: _____

_____

Type Model Year

Number: _____

Capacity: _____ gal./min.

Daily Effective Recovery Rate: _____

Storage Location(s): _____

Date Fuel Last Changed: _____

2. Boom—Operational Status: _____

Type, Model, and Year: _____

Type Model Year

Number: _____

Size (length): _____ ft.

Containment Area: _____ sq. ft.

Storage Location: _____

3. Chemicals Stored (Dispersants listed on EPA's NCP Product Schedule)

Type	Amount	Date purchased	Treatment capacity	Storage location

Were appropriate procedures used to receive approval for use of dispersants in accordance with the NCP (40 CFR 300.910) and the Area Contingency Plan (ACP), where applicable?_____ (Y/N).

Name and State of On-Scene Coordinator (OSC) authorizing use: _____ .

Date Authorized: _____ .

4. Dispersant Dispensing Equipment—Operational Status: _____ .

Type and year	Capacity	Storage location	Response time (minutes)

5. Sorbents—Operational Status: _____

Type and Year Purchased: _____

Amount: _____

Absorption Capacity (gal.): _____

Storage Location(s): _____

6. Hand Tools—Operational Status: _____

Type and year	Quantity	Storage location

Type and year	Quantity	Storage location

7. Communication Equipment (include operating frequency and channel and/or cellular phone numbers)—Operational Status: _____

Type and year	Quantity	Storage location/ number

8. Fire Fighting and Personnel Protective Equipment—Operational Status: _____

Type and year	Quantity	Storage location

9. Other (e.g., Heavy Equipment, Boats and Motors)—Operational Status: _____

Type and year	Quantity	Storage location

1.3.3 Response Equipment Testing/Deployment

Date of Last Update:_____

Response Equipment Testing and Deployment Drill Log

Last Inspection or Response Equipment Test Date: _____
Inspection Frequency: _____
Last Deployment Drill Date: _____
Deployment Frequency: _____
Oil Spill Removal Organization Certification (if applicable): _____

1.3.4 Personnel

Date of Last Update:_____

EMERGENCY RESPONSE PERSONNEL

Company Personnel

Name	Phone [1]	Response time	Responsibility during response action	Response training type/date
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

[1] Phone number to be used when person is not on-site.

EMERGENCY RESPONSE CONTRACTORS

Date of Last Update: _____

Contractor	Phone	Response time	Contract responsibility [1]
1.			

EMERGENCY RESPONSE CONTRACTORS—Continued

Date of Last Update: _____

Contractor	Phone	Response time	Contract responsibility [1]
2.			
3.			
4.			

[1] Include evidence of contracts/agreements with response contractors to ensure the availability of personnel and response equipment.

FACILITY RESPONSE TEAM

Date of Last Update:_____

Team member	Response time (minutes)	Phone or pager number (day/evening)
Qualified Individual:		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/
		/

NOTE: If the facility uses contracted help in an emergency response situation, the owner or operator must provide the contractors' names and review the contractors' capacities to provide adequate personnel and response equipment.

1.3.5 Evacuation Plans

1.3.5.1 Based on the analysis of the facility, as discussed elsewhere in the plan, a facility-wide evacuation plan shall be developed. In addition, plans to evacuate parts of the facility that are at a high risk of exposure in the event of a discharge or other release must be developed. Evacuation routes must be shown on a diagram of the facility (see section 1.9 of this appendix). When developing evacuation plans, consideration must be given to the following factors, as appropriate:

(1) Location of stored materials;
(2) Hazard imposed by discharged material;
(3) Discharge flow direction;
(4) Prevailing wind direction and speed;
(5) Water currents, tides, or wave conditions (if applicable);
(6) Arrival route of emergency response personnel and response equipment;
(7) Evacuation routes;
(8) Alternative routes of evacuation;
(9) Transportation of injured personnel to nearest emergency medical facility;
(10) Location of alarm/notification systems;
(11) The need for a centralized check-in area for evacuation validation (roll call);
(12) Selection of a mitigation command center; and
(13) Location of shelter at the facility as an alternative to evacuation.

1.3.5.2 One resource that may be helpful to owners or operators in preparing this section of the response plan is The *Handbook of Chemical Hazard Analysis Procedures* by the Federal Emergency Management Agency (FEMA), Department of Transportation (DOT), and EPA. *The Handbook of Chemical Hazard Analysis Procedures* is available from: FEMA , Publication Office, 500 C. Street, S.W., Washington, DC 20472, (202) 646–3484.

1.3.5.3 As specified in §112.20(h)(1)(vi), the facility owner or operator must reference existing community evacuation plans, as appropriate.

1.3.6 Qualified Individual's Duties

The duties of the designated qualified individual are specified in §112.20(h)(3)(ix). The qualified individual's duties must be described and be consistent with the minimum requirements in §112.20(h)(3)(ix). In addition, the qualified individual must be identified with the Facility Information in section 1.2 of the response plan.

1.4 Hazard Evaluation

This section requires the facility owner or operator to examine the facility's operations closely and to predict where discharges could occur. Hazard evaluation is a widely used industry practice that allows facility owners or operators to develop a complete understanding of potential hazards and the response actions necessary to address these hazards. *The Handbook of Chemical Hazard Analysis Procedures,* prepared by the EPA, DOT, and the FEMA and the *Hazardous Materials Emergency Planning Guide* (NRT–1), prepared by the National Response Team are good references for conducting a hazard analysis. Hazard identification and evaluation will assist facility owners or operators in planning for potential discharges, thereby reducing the severity of discharge impacts that may occur in the future. The evaluation also may help the operator identify and correct potential sources of discharges. In addition, special hazards to workers and emergency response personnel's health and safety shall be evaluated, as well as the facility's oil spill history.

1.4.1 Hazard Identification

The Tank and Surface Impoundment (SI) forms, or their equivalent, that are part of this section must be completed according to the directions below. (''Surface Impoundment'' means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well or a seepage facility.) Similar worksheets, or their equivalent, must be developed for any other type of storage containers.

(1) List each tank at the facility with a separate and distinct identifier. Begin aboveground tank identifiers with an ''A'' and belowground tank identifiers with a ''B'', or submit multiple sheets with the aboveground tanks and belowground tanks on separate sheets.

(2) Use gallons for the maximum capacity of a tank; and use square feet for the area.

(3) Using the appropriate identifiers and the following instructions, fill in the appropriate forms:

(a) Tank or SI number—Using the aforementioned identifiers (A or B) or multiple reporting sheets, identify each tank or SI at the facility that stores oil or hazardous materials.

(b) Substance Stored—For each tank or SI identified, record the material that is stored therein. If the tank or SI is used to store more than one material, list all of the stored materials.

(c) Quantity Stored—For each material stored in each tank or SI, report the average volume of material stored on any given day.

(d) Tank Type or Surface Area/Year—For each tank, report the type of tank (e.g., floating top), and the year the tank was originally installed. If the tank has been refabricated, the year that the latest refabrication was completed must be recorded in parentheses next to the year installed. For

each SI, record the surface area of the impoundment and the year it went into service.

(e) Maximum Capacity—Record the operational maximum capacity for each tank and SI. If the maximum capacity varies with the season, record the upper and lower limits.

(f) Failure/Cause—Record the cause and date of any tank or SI failure which has resulted in a loss of tank or SI contents.

(4) Using the numbers from the tank and SI forms, label a schematic drawing of the facility. This drawing shall be identical to any schematic drawings included in the SPCC Plan.

(5) Using knowledge of the facility and its operations, describe the following in writing:

(a) The loading and unloading of transportation vehicles that risk the discharge of oil or release of hazardous substances during transport processes. These operations may include loading and unloading of trucks, railroad cars, or vessels. Estimate the volume of material involved in transfer operations, if the exact volume cannot be determined.

(b) Day-to-day operations that may present a risk of discharging oil or releasing a hazardous substance. These activities include scheduled venting, piping repair or replacement, valve maintenance, transfer of tank contents from one tank to another, etc. (not including transportation-related activities). Estimate the volume of material involved in these operations, if the exact volume cannot be determined.

(c) The secondary containment volume associated with each tank and/or transfer point at the facility. The numbering scheme developed on the tables, or an equivalent system, must be used to identify each containment area. Capacities must be listed for each individual unit (tanks, slumps, drainage traps, and ponds), as well as the facility total.

(d) Normal daily throughput for the facility and any effect on potential discharge volumes that a negative or positive change in that throughput may cause.

HAZARD IDENTIFICATION TANKS [1]

Date of Last Update: _____

Tank No.	Substance Stored (Oil and Hazardous Substance)	Quantity Stored (gallons)	Tank Type/Year	Maximum Capacity (gallons)	Failure/Cause

[1] Tank = any container that stores oil.
Attach as many sheets as necessary.

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SIS)

Date of Last Update: _____

SI No.	Substance Stored	Quantity Stored (gallons)	Surface Area/Year	Maximum Capacity (gallons)	Failure/Cause

HAZARD IDENTIFICATION SURFACE IMPOUNDMENTS (SIS)—Continued

Date of Last Update: _____

SI No.	Substance Stored	Quantity Stored (gallons)	Surface Area/Year	Maximum Capacity (gallons)	Failure/Cause

Attach as many sheets as necessary.

1.4.2 Vulnerability Analysis

The vulnerability analysis shall address the potential effects (i.e., to human health, property, or the environment) of an oil discharge. Attachment C–III to Appendix C to this part provides a method that owners or operators shall use to determine appropriate distances from the facility to fish and wildlife and sensitive environments. Owners or operators can use a comparable formula that is considered acceptable by the RA. If a comparable formula is used, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet. This analysis must be prepared for each facility and, as appropriate, must discuss the vulnerability of:

(1) Water intakes (drinking, cooling, or other);
(2) Schools;
(3) Medical facilities;
(4) Residential areas;
(5) Businesses;
(6) Wetlands or other sensitive environments;[2]
(7) Fish and wildlife;
(8) Lakes and streams;
(9) Endangered flora and fauna;
(10) Recreational areas;
(11) Transportation routes (air, land, and water);
(12) Utilities; and
(13) Other areas of economic importance (e.g., beaches, marinas) including terrestrially sensitive environments, aquatic environments, and unique habitats.

1.4.3 Analysis of the Potential for an Oil Discharge

Each owner or operator shall analyze the probability of a discharge occurring at the facility. This analysis shall incorporate factors such as oil discharge history, horizontal range of a potential discharge, and vulnerability to natural disaster, and shall, as appropriate, incorporate other factors such as tank age. This analysis will provide information for developing discharge scenarios for a worst case discharge and small and medium discharges and aid in the development of techniques to reduce the size and frequency of discharges. The owner or operator may need to research the age of the tanks the oil discharge history at the facility.

1.4.4 Facility Reportable Oil Spill History

Briefly describe the facility's reportable oil spill[3] history for the entire life of the facility to the extent that such information is reasonably identifiable, including:

(1) Date of discharge(s);
(2) List of discharge causes;
(3) Material(s) discharged;
(4) Amount discharged in gallons;
(5) Amount of discharge that reached navigable waters, if applicable;
(6) Effectiveness and capacity of secondary containment;
(7) Clean-up actions taken;
(8) Steps taken to reduce possibility of recurrence;
(9) Total oil storage capacity of the tank(s) or impoundment(s) from which the material discharged;
(10) Enforcement actions;
(11) Effectiveness of monitoring equipment; and
(12) Description(s) of how each oil discharge was detected.

[2] Refer to the DOC/NOAA ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (See appendix E to this part, section 13, for availability).

[3] As described in 40 CFR part 110, reportable oil spills are those that: (a) violate applicable water quality standards, or (b) cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

The information solicited in this section may be similar to requirements in 40 CFR 112.4(a). Any duplicate information required by §112.4(a) may be photocopied and inserted.

1.5 Discharge Scenarios

In this section, the owner or operator is required to provide a description of the facility's worst case discharge, as well as a small and medium discharge, as appropriate. A multi-level planning approach has been chosen because the response actions to a discharge (*i.e.*, necessary response equipment, products, and personnel) are dependent on the magnitude of the discharge. Planning for lesser discharges is necessary because the nature of the response may be qualitatively different depending on the quantity of the discharge. The facility owner or operator shall discuss the potential direction of the discharge pathway.

1.5.1 Small and Medium Discharges

1.5.1.1 To address multi-level planning requirements, the owner or operator must consider types of facility-specific discharge scenarios that may contribute to a small or medium discharge. The scenarios shall account for all the operations that take place at the facility, including but not limited to:

(1) Loading and unloading of surface transportation;
(2) Facility maintenance;
(3) Facility piping;
(4) Pumping stations and sumps;
(5) Oil storage tanks;
(6) Vehicle refueling; and
(7) Age and condition of facility and components.

1.5.1.2 The scenarios shall also consider factors that affect the response efforts required by the facility. These include but are not limited to:

(1) Size of the discharge;
(2) Proximity to downgradient wells, waterways, and drinking water intakes;
(3) Proximity to fish and wildlife and sensitive environments;
(4) Likelihood that the discharge will travel offsite (*i.e.*, topography, drainage);
(5) Location of the material discharged (*i.e.*, on a concrete pad or directly on the soil);
(6) Material discharged;
(7) Weather or aquatic conditions (*i.e.*, river flow);
(8) Available remediation equipment;
(9) Probability of a chain reaction of failures; and
(10) Direction of discharge pathway.

1.5.2 Worst Case Discharge

1.5.2.1 In this section, the owner or operator must identify the worst case discharge volume at the facility. Worksheets for production and non-production facility owners or operators to use when calculating worst case discharge are presented in Appendix D to this part. When planning for the worst case discharge response, all of the aforementioned factors listed in the small and medium discharge section of the response plan shall be addressed.

1.5.2.2 For onshore storage facilities and production facilities, permanently manifolded oil storage tanks are defined as tanks that are designed, installed, and/or operated in such a manner that the multiple tanks function as one storage unit (i.e., multiple tank volumes are equalized). In this section of the response plan, owners or operators must provide evidence that oil storage tanks with common piping or piping systems are not operated as one unit. If such evidence is provided and is acceptable to the RA, the worst case discharge volume shall be based on the combined oil storage capacity of all manifold tanks or the oil storage capacity of the largest single oil storage tank within the secondary containment area, whichever is greater. For permanently manifolded oil storage tanks that function as one storage unit, the worst case discharge shall be based on the combined oil storage capacity of all manifolded tanks or the oil storage capacity of the largest single tank within a secondary containment area, whichever is greater. For purposes of the worst case discharge calculation, permanently manifolded oil storage tanks that are separated by internal divisions for each tank are considered to be single tanks and individual manifolded tank volumes are not combined.

1.6 Discharge Detection Systems

In this section, the facility owner or operator shall provide a detailed description of the procedures and equipment used to detect discharges. A section on discharge detection by personnel and a discussion of automated discharge detection, if applicable, shall be included for both regular operations and after hours operations. In addition, the facility owner or operator shall discuss how the reliability of any automated system will be checked and how frequently the system will be inspected.

1.6.1 Discharge Detection by Personnel

In this section, facility owners or operators shall describe the procedures and personnel that will detect any discharge of oil or release of a hazardous substance. A thorough discussion of facility inspections must be included. In addition, a description of initial response actions shall be addressed. This section shall reference section 1.3.1 of the response plan for emergency response information.

1.6.2 Automated Discharge Detection

In this section, facility owners or operators must describe any automated discharge detection equipment that the facility has in place. This section shall include a discussion of overfill alarms, secondary containment sensors, etc. A discussion of the plans to verify an automated alarm and the actions to be taken once verified must also be included.

1.7 Plan Implementation

In this section, facility owners or operators must explain in detail how to implement the facility's emergency response plan by describing response actions to be carried out under the plan to ensure the safety of the facility and to mitigate or prevent discharges described in section 1.5 of the response plan. This section shall include the identification of response resources for small, medium, and worst case discharges; disposal plans; and containment and drainage planning. A list of those personnel who would be involved in the cleanup shall be identified. Procedures that the facility will use, where appropriate or necessary, to update their plan after an oil discharge event and the time frame to update the plan must be described.

1.7.1 Response Resources for Small, Medium, and Worst Case Discharges

1.7.1.1 Once the discharge scenarios have been identified in section 1.5 of the response plan, the facility owner or operator shall identify and describe implementation of the response actions. The facility owner or operator shall demonstrate accessibility to the proper response personnel and equipment to effectively respond to all of the identified discharge scenarios. The determination and demonstration of adequate response capability are presented in Appendix E to this part. In addition, steps to expedite the cleanup of oil discharges must be discussed. At a minimum, the following items must be addressed:

(1) Emergency plans for spill response;

(2) Additional response training;

(3) Additional contracted help;

(4) Access to additional response equipment/experts; and

(5) Ability to implement the plan including response training and practice drills.

1.7.1.2A recommended form detailing immediate actions follows.

OIL SPILL RESPONSE—IMMEDIATE ACTIONS

1. Stop the product flow	Act quickly to secure pumps, close valves, etc.
2. Warn personnel	Enforce safety and security measures.
3. Shut off ignition sources.	Motors, electrical circuits, open flames, etc.
4. Initiate containment	Around the tank and/or in the water with oil boom.
5. Notify NRC	1–800–424–8802
6. Notify OSC	
7. Notify, as appropriate	

Source: FOSS, Oil Spill Response—Emergency Procedures, Revised December 3, 1992.

1.7.2 Disposal Plans

1.7.2.1 Facility owners or operators must describe how and where the facility intends to recover, reuse, decontaminate, or dispose of materials after a discharge has taken place. The appropriate permits required to transport or dispose of recovered materials according to local, State, and Federal requirements must be addressed. Materials that must be accounted for in the disposal plan, as appropriate, include:

(1) Recovered product;

(2) Contaminated soil;

(3) Contaminated equipment and materials, including drums, tank parts, valves, and shovels;

(4) Personnel protective equipment;

(5) Decontamination solutions;

(6) Adsorbents; and

(7) Spent chemicals.

1.7.2.2 These plans must be prepared in accordance with Federal (e.g., the Resource Conservation and Recovery Act [RCRA]), State, and local regulations, where applicable. A copy of the disposal plans from the facility's SPCC Plan may be inserted with this section, including any diagrams in those plans.

Material	Disposal facility	Location	RCRA permit/manifest
1.			
2.			
3.			
4.			

1.7.3 Containment and Drainage Planning

A proper plan to contain and control a discharge through drainage may limit the threat of harm to human health and the environment. This section shall describe how to contain and control a discharge through drainage, including:

(1) The available volume of containment (use the information presented in section 1.4.1 of the response plan);
(2) The route of drainage from oil storage and transfer areas;
(3) The construction materials used in drainage troughs;
(4) The type and number of valves and separators used in the drainage system;
(5) Sump pump capacities;
(6) The containment capacity of weirs and booms that might be used and their location (see section 1.3.2 of this appendix); and
(7) Other cleanup materials.

In addition, a facility owner or operator must meet the inspection and monitoring requirements for drainage contained in 40 CFR part 112, subparts A through C. A copy of the containment and drainage plans that are required in 40 CFR part 112, subparts A through C may be inserted in this section, including any diagrams in those plans.

NOTE: The general permit for stormwater drainage may contain additional requirements.

1.8 Self-Inspection, Drills/Exercises, and Response Training

The owner or operator must develop programs for facility response training and for drills/exercises according to the requirements of 40 CFR 112.21. Logs must be kept for facility drills/exercises, personnel response training, and spill prevention meetings. Much of the recordkeeping information required by this section is also contained in the SPCC Plan required by 40 CFR 112.3. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.1 Facility Self-Inspection

Under 40 CFR 112.7(e), you must include the written procedures and records of inspections for each facility in the SPCC Plan. You must include the inspection records for each container, secondary containment, and item of response equipment at the facility. You must cross-reference the records of inspections of each container and secondary containment required by 40 CFR 112.7(e) in the facility response plan. The inspection record of response equipment is a new requirement in this plan. Facility self-inspection requires two-steps: (1) a checklist of things to inspect; and (2) a method of recording the actual inspection and its findings. You must note the date of each inspection. You must keep facility response plan records for five years. You must keep SPCC records for three years.

1.8.1.1. Tank Inspection

The tank inspection checklist presented below has been included as guidance during inspections and monitoring. Similar requirements exist in 40 CFR part 112, subparts A through C. Duplicate information from the SPCC Plan may be photocopied and inserted in this section. The inspection checklist consists of the following items:

TANK INSPECTION CHECKLIST

1. Check tanks for leaks, specifically looking for:
   A. drip marks;
   B. discoloration of tanks;
   C. puddles containing spilled or leaked material;
   D. corrosion;
   E. cracks; and
   F. localized dead vegetation.
2. Check foundation for:
   A. cracks;
   B. discoloration;
   C. puddles containing spilled or leaked material;
   D. settling;
   E. gaps between tank and foundation; and
   F. damage caused by vegetation roots.
3. Check piping for:
   A. droplets of stored material;
   B. discoloration;
   C. corrosion;
   D. bowing of pipe between supports;
   E. evidence of stored material seepage from valves or seals; and
   F. localized dead vegetation.

TANK/SURFACE IMPOUNDMENT INSPECTION LOG

Inspector	Tank or SI#	Date	Comments

TANK/SURFACE IMPOUNDMENT INSPECTION LOG—Continued

Inspector	Tank or SI#	Date	Comments

1.8.1.2 Response Equipment Inspection

Using the Emergency Response Equipment List provided in section 1.3.2 of the response plan, describe each type of response equipment, checking for the following:

Response Equipment Checklist

1. Inventory (item and quantity);
2. Storage location;
3. Accessibility (time to access and respond);
4. Operational status/condition;
5. Actual use/testing (last test date and frequency of testing); and
6. Shelf life (present age, expected replacement date).

Please note any discrepancies between this list and the available response equipment.

RESPONSE EQUIPMENT INSPECTION LOG

[Use section 1.3.2 of the response plan as a checklist]

Inspector	Date	Comments

RESPONSE EQUIPMENT INSPECTION LOG—Continued

[Use section 1.3.2 of the response plan as a checklist]

Inspector	Date	Comments

1.8.1.3 Secondary Containment Inspection

Inspect the secondary containment (as described in sections 1.4.1 and 1.7.2 of the response plan), checking the following:

Secondary Containment Checklist

1. Dike or berm system.
   A. Level of precipitation in dike/available capacity;
   B. Operational status of drainage valves;
   C. Dike or berm permeability;
   D. Debris;
   E. Erosion;
   F. Permeability of the earthen floor of diked area; and
   G. Location/status of pipes, inlets, drainage beneath tanks, etc.
2. Secondary containment
   A. Cracks;
   B. Discoloration;
   C. Presence of spilled or leaked material (standing liquid);
   D. Corrosion; and
   E. Valve conditions.
3. Retention and drainage ponds
   A. Erosion;
   B. Available capacity;
   C. Presence of spilled or leaked material;
   D. Debris; and
   E. Stressed vegetation.

The tank inspection checklist presented below has been included as guidance during inspections and monitoring. Similar requirements exist in 40 CFR part 112, subparts A through C. Similar requirements exist in 40 CFR 112.7(e). Duplicate information from the SPCC Plan may be photocopied and inserted in this section.

1.8.2 Facility Drills/Exercises

(A) CWA section 311(j)(5), as amended by OPA, requires the response plan to contain a description of facility drills/exercises. According to 40 CFR 112.21(c), the facility owner or operator shall develop a program of facility response drills/exercises, including evaluation procedures. Following the PREP guidelines (see Appendix E to this part, section 13, for availability) would satisfy a facility's requirements for drills/exercises under this part. Alternately, under §112.21(c), a facility owner or operator may develop a program that is not based on the PREP guidelines. Such a program is subject to approval by the Regional Administrator based on the description of the program provided in the response plan.

(B) The PREP Guidelines specify that the facility conduct internal and external drills/exercises. The internal exercises include: qualified individual notification drills, spill management team tabletop exercises, equipment deployment exercises, and unannounced exercises. External exercises include Area Exercises. Credit for an Area or Facility-specific Exercise will be given to the facility for an actual response to a discharge in the area if the plan was utilized for response to the discharge and the objectives of the Exercise were met and were properly evaluated, documented, and self-certified.

(C) Section 112.20(h)(8)(ii) requires the facility owner or operator to provide a description of the drill/exercise program to be carried out under the response plan. Qualified Individual Notification Drill and Spill Management Team Tabletop Drill logs shall be provided in sections 1.8.2.1 and 1.8.2.2, respectively. These logs may be included in the facility response plan or kept as an annex to the facility response plan. See section 1.3.3 of this appendix for Equipment Deployment Drill Logs.

1.8.2.1 Qualified Individual Notification Drill Logs

Qualified Individual Notification Drill Log

Date: _____
Company: _____
Qualified Individual(s): _____
Emergency Scenario: _____
_____
_____
Evaluation: _____
_____
_____
_____
Changes to be Implemented: _____
_____
_____
Time Table for Implementation: _____
_____

1.8.2.2 Spill Management Team Tabletop Exercise Logs

Spill Management Team Tabletop Exercise Log

Date: _____
Company: _____
Qualified Individual(s): _____
Emergency Scenario: _____
_____
_____
Evaluation: _____
_____
_____
_____
Changes to be Implemented: _____
_____
_____
Time Table for Implementation: _____

1.8.3 Response Training

Section 112.21(a) requires facility owners or operators to develop programs for facility response training. Facility owners or operators are required by §112.20(h)(8)(iii) to provide a description of the response training program to be carried out under the response plan. A facility's training program can be based on the USCG's Training Elements for Oil Spill Response, to the extent applicable to facility operations, or another response training program acceptable to the RA. The training elements are available from the USCG Office of Response (G-MOR) at (202) 267–0518 or fax (202) 267–4085. Personnel response training logs and discharge prevention meeting logs shall be included in sections 1.8.3.1 and 1.8.3.2 of the response plan respectively. These logs may be included in the facility response plan or kept as an annex to the facility response plan.

1.8.3.1 Personnel Response Training Logs

PERSONNEL RESPONSE TRAINING LOG

Name	Response training/date and number of hours	Prevention training/date and number of hours

1.8.3.2 Discharge Prevention Meetings Logs

DISCHARGE PREVENTION MEETING LOG

Date: _____
Attendees: _____
_____
_____
_____
_____
_____
_____
_____
_____

Subject/issue identified	Required action	Implementation date

1.9 Diagrams

The facility-specific response plan shall include the following diagrams. Additional diagrams that would aid in the development of response plan sections may also be included.

(1) The Site Plan Diagram shall, as appropriate, include and identify:
(A) the entire facility to scale;
(B) above and below ground bulk oil storage tanks;
(C) the contents and capacities of bulk oil storage tanks;
(D) the contents and capacity of drum oil storage areas;
(E) the contents and capacities of surface impoundments;
(F) process buildings;
(G) transfer areas;
(H) secondary containment systems (location and capacity);
(I) structures where hazardous materials are stored or handled, including materials stored and capacity of storage;
(J) location of communication and emergency response equipment;
(K) location of electrical equipment which contains oil; and
(L) for complexes only, the interface(s) (i.e., valve or component) between the portion of the facility regulated by EPA and the portion(s) regulated by other Agencies. In most cases, this interface is defined as the last valve inside secondary containment before piping leaves the secondary containment area to connect to the transportation-related portion of the facility (i.e., the structure used or intended to be used to transfer oil to or from a vessel or pipeline). In the absence of secondary containment, this interface is the valve manifold adjacent to the tank nearest the transfer structure as described above. The interface may be defined differently at a specific facility if agreed to by the RA and the appropriate Federal official.

(2) The Site Drainage Plan Diagram shall, as appropriate, include:
(A) major sanitary and storm sewers, manholes, and drains;
(B) weirs and shut-off valves;
(C) surface water receiving streams;
(D) fire fighting water sources;
(E) other utilities;
(F) response personnel ingress and egress;
(G) response equipment transportation routes; and
(H) direction of discharge flow from discharge points.

(3) The Site Evacuation Plan Diagram shall, as appropriate, include:
(A) site plan diagram with evacuation route(s); and
(B) location of evacuation regrouping areas.

1.10 Security

According to 40 CFR 112.7(g) facilities are required to maintain a certain level of security, as appropriate. In this section, a description of the facility security shall be provided and include, as appropriate:

(1) emergency cut-off locations (automatic or manual valves);
(2) enclosures (e.g., fencing, etc.);
(3) guards and their duties, day and night;
(4) lighting;
(5) valve and pump locks; and
(6) pipeline connection caps.

The SPCC Plan contains similar information. Duplicate information may be photocopied and inserted in this section.

2.0 Response Plan Cover Sheet

A three-page form has been developed to be completed and submitted to the RA by owners or operators who are required to prepare and submit a facility-specific response plan. The cover sheet (Attachment F–1) must accompany the response plan to provide the Agency with basic information concerning the facility. This section will describe the Response Plan Cover Sheet and provide instructions for its completion.

2.1 General Information

Owner/Operator of Facility: Enter the name of the owner of the facility (if the owner is the operator). Enter the operator of the facility if otherwise. If the owner/operator of

the facility is a corporation, enter the name of the facility's principal corporate executive. Enter as much of the name as will fit in each section.

(1) *Facility Name:* Enter the proper name of the facility.

(2) *Facility Address:* Enter the street address, city, State, and zip code.

(3) *Facility Phone Number:* Enter the phone number of the facility.

(4) *Latitude and Longitude:* Enter the facility latitude and longitude in degrees, minutes, and seconds.

(5) *Dun and Bradstreet Number:* Enter the facility's Dun and Bradstreet number if available (this information may be obtained from public library resources).

(6) North American Industrial Classification System (NAICS) Code: Enter the facility's NAICS code as determined by the Office of Management and Budget (this information may be obtained from public library resources.)

(7) *Largest Oil Storage Tank Capacity:* Enter the capacity in GALLONS of the largest aboveground oil storage tank at the facility.

(8) *Maximum Oil Storage Capacity:* Enter the total maximum capacity in GALLONS of all aboveground oil storage tanks at the facility.

(9) *Number of Oil Storage Tanks:* Enter the number of all aboveground oil storage tanks at the facility.

(10) *Worst Case Discharge Amount:* Using information from the worksheets in Appendix D, enter the amount of the worst case discharge in GALLONS.

(11) *Facility Distance to Navigable Waters:* Mark the appropriate line for the nearest distance between an opportunity for discharge (i.e., oil storage tank, piping, or flowline) and a navigable water.

2.2 Applicability of Substantial Harm Criteria

Using the flowchart provided in Attachment C–I to Appendix C to this part, mark the appropriate answer to each question. Explanations of referenced terms can be found in Appendix C to this part. If a comparable formula to the ones described in Attachment C–III to Appendix C to this part is used to calculate the planning distance, documentation of the reliability and analytical soundness of the formula must be attached to the response plan cover sheet.

2.3 Certification

Complete this block after all other questions have been answered.

3.0 Acronyms

ACP: Area Contingency Plan
ASTM: American Society of Testing Materials
bbls: Barrels
bpd: Barrels per Day
bph: Barrels per Hour
CHRIS: Chemical Hazards Response Information System
CWA: Clean Water Act
DOI: Department of Interior
DOC: Department of Commerce
DOT: Department of Transportation
EPA: Environmental Protection Agency
FEMA: Federal Emergency Management Agency
FR: Federal Register
gal: Gallons
gpm: Gallons per Minute
HAZMAT: Hazardous Materials
LEPC: Local Emergency Planning Committee
MMS: Minerals Management Service (part of DOI)
NAICS: North American Industrial Classification System
NCP: National Oil and Hazardous Substances Pollution Contingency Plan
NOAA: National Oceanic and Atmospheric Administration (part of DOC)
NRC: National Response Center
NRT: National Response Team
OPA: Oil Pollution Act of 1990
OSC: On-Scene Coordinator
PREP: National Preparedness for Response Exercise Program
RA: Regional Administrator
RCRA: Resource Conservation and Recovery Act
RRC: Regional Response Centers
RRT: Regional Response Team
RSPA: Research and Special Programs Administration
SARA: Superfund Amendments and Reauthorization Act
SERC: State Emergency Response Commission
SDWA: Safe Drinking Water Act of 1986
SI: Surface Impoundment
SPCC: Spill Prevention, Control, and Countermeasures
USCG: United States Coast Guard

4.0 References

CONCAWE. 1982. Methodologies for Hazard Analysis and Risk Assessment in the Petroleum Refining and Storage Industry. Prepared by CONCAWE's Risk Assessment Ad-hoc Group.

U.S. Department of Housing and Urban Development. 1987. Siting of HUD-Assisted Projects Near Hazardous Facilities: Acceptable Separation Distances from Explosive and Flammable Hazards. Prepared by the Office of Environment and Energy, Environmental Planning Division, Department of Housing and Urban Development. Washington, DC.

U.S. DOT, FEMA and U.S. EPA. Handbook of Chemical Hazard Analysis Procedures.

U.S. DOT, FEMA and U.S. EPA. Technical Guidance for Hazards Analysis: Emergency

Planning for Extremely Hazardous Substances.

The National Response Team. 1987. Hazardous Materials Emergency Planning Guide. Washington, DC.

The National Response Team. 1990. Oil Spill Contingency Planning, National Status: A Report to the President. Washington, DC. U.S. Government Printing Office.

Offshore Inspection and Enforcement Division. 1988. Minerals Management Service, Offshore Inspection Program: National Potential Incident of Noncompliance (PINC) List. Reston, VA.

ATTACHMENTS TO APPENDIX F

Attachment F–1—Response Plan Cover Sheet

This cover sheet will provide EPA with basic information concerning the facility. It must accompany a submitted facility response plan. Explanations and detailed instructions can be found in Appendix F. Please type or write legibly in blue or black ink. Public reporting burden for the collection of this information is estimated to vary from 1 hour to 270 hours per response in the first year, with an average of 5 hours per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate of this information, including suggestions for reducing this burden to: Chief, Information Policy Branch, Mail Code: PM–2822, U.S. Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington D.C. 20503.

GENERAL INFORMATION

Owner/Operator of Facility: _____

_____

Facility Name: _____

Facility Address (street address or route):

_____

City, State, and U.S. Zip Code: _____

Facility Phone No.: _____

Latitude (Degrees: North):

_____

degrees, minutes, seconds

Dun & Bradstreet Number:[1] _____

Largest Aboveground Oil Storage Tank Capacity (Gallons): _____

Number of Aboveground Oil Storage Tanks:

Longitude (Degrees: West):

_____

degrees, minutes, seconds _____

North American Industrial Classification System (NAICS) Code:[1] _____

Maximum Oil Storage Capacity (Gallons): __

Worst Case Oil Discharge Amount (Gallons):

_____

Facility Distance to Navigable Water. Mark the appropriate line. _____

0–¼ mile ____ ¼–½ mile ____ ½–1 mile ____ >1 mile ____

APPLICABILITY OF SUBSTANTIAL HARM CRITERIA

Does the facility transfer oil over-water[2] to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility lack secondary containment[2] that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance[2] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?[3]

Yes _____

No _____

[1] These numbers may be obtained from public library resources.

[2] Explanations of the above-referenced terms can be found in Appendix C to this part. If a comparable formula to the ones contained in Attachment C–III is used to establish the appropriate distance to fish and wildlife and sensitive environments or public drinking water intakes, documentation of the reliability and analytical soundness of the formula must be attached to this form.

[3] For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's ''Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments'' (see Appendix E to this part, section 13, for availability) and the applicable ACP.

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance[2] (as calculated using the appropriate formula in Appendix C or a comparable formula) such that a discharge from the facility would shut down a public drinking water intake?[2]

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill[2] in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____

No _____

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Signature: _____

Name (Please type or print): _____

Title: _____

Date: _____

[59 FR 34122, July 1, 1994; 59 FR 49006, Sept. 26, 1994, as amended at 65 FR 40816, June 30, 2000; 65 FR 43840, July 14, 2000; 66 FR 34561, June 29, 2001; 67 FR 47152, July 17, 2002]

APPENDIX G TO PART 112—TIER I QUALIFIED FACILITY SPCC PLAN

APPENDIX B

SPCC RULE CROSS-REFERENCE
(Incorporating 12/5/08 and 11/13/09 Revisions)

South Plains College SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	**Description**	**Facility SPCC Plan**	**Visually Confirmed in Field**
112.3(d)	Except as provided in § 112.6, a licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of this part.	i	NA
112.3(d)(1)	By means of this certification the Professional Engineer attests:	i	NA
112.3(d)(1)(i)	That he is familiar with the requirements of this part:	i	NA
112.3(d)(1)(ii)	That he or his agent has visited and examined the facility:	i	NA
112.3(d)(1)(iii)	That the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;	i	NA
112.3(d)(1)(iv)	That procedures for required inspections and testing have been established; and	i	NA
112.3(d)(1)(v)	That the Plan is adequate for the facility.	i	NA
112.3(d)(1)(vi)	That, if applicable, for a produced water container subject to § 112.9(c)(6), any procedure to minimize the amount of free-phase oil is designed to reduce the accumulation of free-phase oil and the procedures and frequency for required inspections, maintenance and testing have been established and are described in the Plan.	NA	NA
112.4(a)	Notwithstanding compliance with § 112.3, whenever your facility has discharged more than 1,000 U.S. gallons of oil in a single discharge as described in § 112.1(b), or discharged more than 42 U.S. gallons of oil in each of two discharges as described in § 112.1(b), occurring within any twelve month period, submit the following information to the Regional Administrator within 60 days from the time the facility becomes subject of this section:	3.4	NA
112.4(a)(1)	Name of the facility;	3.4	NA
112.4(a)(2)	Your name;	3.4	NA
112.4(a)(3)	Location of the facility;	3.4	NA
112.4(a)(4)	Maximum storage or handling capacity of the facility and normal daily throughput;	3.4	NA
112.4(a)(5)	Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;	3.4	NA
112.4(a)(6)	An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;	3.4	NA
112.4(a)(7)	The cause of such discharge as described in § 112.1(b), including a failure analysis of the system or subsystem in which the failure occurred;	3.4	NA
112.4(a)(8)	An additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and	3.4	NA
112.4(a)(9)	Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.	3.4	NA
112.4(d)	Amendment of Spill Prevention Control and Countermeasure Plan (SPCC) by Regional Administrator.	--	--
112.5(a)	SPCC amendments due to changes in facility design.	iii	NA
112.5(b)	Perform a review and evaluation of SPCC Plan at least once every five years. The owner/operator must document completion of the review and evaluation, and must sign a statement as to whether he will amend the SPCC Plan. The following will suffice: "I have completed review and evaluation of the SPCC Plan for (name of facility) on (date), and will (will not) amend the Plan as a result.	iii	NA
112.5(c)	Obtain Professional Engineers certification for any technical amendments in accordance with 11-2.3(d).	iii	NA
112.7(a)(1)	Include a discussion of your facility's conformance with the requirements listed in 40 CFR 112.7.	--	--
112.7(a)(2)	Comply with all applicable requirements listed in this part. Except as provided in § 112.6, your Plan may deviate from the requirements in paragraphs (g), (h)(2) and (3), and (i) of this section and the requirements in subparts B and C of this part, except the secondary containment requirements in paragraphs (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.9(d)(3), 112.10(c), 112.12(c)(2), and 112.12(c)(11), where applicable to a specific facility, if you provide equivalent environmental protection by some other means of spill prevention, control, or countermeasure. Where your Plan does not conform to the applicable requirements in paragraphs (g), (h)(2) and (3), and (i) of this section, or the requirements of subparts B and C of this part, except the secondary containment requirements in paragraph (c) and (h)(1) of this section, and §§ 112.8(c)(2), 112.8(c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), and 112.12(c)(11), you must state the reasons for nonconformance in your Plan and describe in detail alternate methods and how you will achieve equivalent environmental protection. If the Regional Administrator determines that the measures described in your Plan do not provide equivalent environmental protection, he may require that you amend your Plan, following the procedures in § 112.4(d) and (e).	6.2	✓

South Plains College SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	**Description**	**Facility SPCC Plan**	**Visually Confirmed in Field**
112.7(a)(3)	Describe in your Plan the physical layout of the facility and include a facility diagram, which must mark the location and contents of each fixed oil storage container and the storage area where mobile or portable containers are located. The facility diagram must identify the location of and mark as "exempt" underground tanks that are otherwise exempted from the requirements of this part under § 112.1(d)(4). The facility diagram must also include all transfer stations and connecting pipes, including intra-facility gathering lines that are otherwise exempted from the requirements of this part under § 112.1(d)(11). You must also address in your Plan:	Figures 1 and 2, Table 1	✓
112.7(a)(3)(i)	The type of oil in each fixed container and its storage capacity. For mobile or portable containers, either provide the type of oil and storage capacity for each container or provide an estimate of the potential number of mobile or portable containers, the types of oil, and anticipated storage capacities	Table 1	✓
112.7(a)(3)(ii)	(ii) Discharge prevention measures including procedures for routine handling of products (loading, unloading, and facility transfers, etc.);	§6	✓
112.7(a)(3)(iii)	(iii) Discharge or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of a discharge.	§6	✓
112.7(a)(3)(iv)	(iv) Countermeasures for discharge discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor);	§3	✓
112.7(a)(3)(v)	(v) Methods of disposal of recovered materials in accordance with applicable legal requirements; and	§6.3.3	✓
112.7(a)(3)(vi)	(vi) Contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors with whom you have an agreement for response, and all appropriate Federal, State, and local agencies who must be contacted in case of discharge as described in § 112.1(b).	§3 & 4	✓
112.7(a)(4)	Unless you have submitted a response plan under 40 CFR 112.20, provide information and procedures in your SPCC Plan to enable a person reporting a discharge to relate information on the exact address or location and phone number of the facility…	§3 & 4	✓
112.7(a)(5)	Unless you have submitted a response plan under 40 CFR 112.20, organize portions of the SPCC Plan describing procedures you will use when a discharge occurs in a way that will make them readily usable in an emergency and include appropriate supporting materials as appendices.	§3 & 4	✓
112.7(b)	Where experience indicates a reasonable potential for equipment failure (such as loading or unloading equipment, tank overflow, rupture, or leakage, or any other equipment known to be a source of a discharge), include in your Plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each type of major equipment failure.	Table 1	✓
112.7(c)	Provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b), except as provided in paragraph (k) of this section for qualified oil-filled operational equipment, and except as provided in § 112.9(d)(3) for flowlines and intra-facility gathering lines at an oil production facility. The entire containment system, including walls and floor, must be capable of containing oil and must be constructed so that any discharge from a primary containment system, such as a tank, will not escape the containment system before cleanup occurs. In determining the method, design, and capacity for secondary containment, you need only to address the typical failure mode, and the most likely quantity of oil that would be discharged. Secondary containment may be either active or passive in design. At a minimum, you must use one of the following prevention systems or its equivalent:	§6	✓
112.7(c)(1)	For onshore facilities: (i) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (ii) Curbing or drip pans; (iii) Sumps and collection systems; (iv) Culverting, gutters, or other drainage systems; (v) Weirs, booms, or other barriers; (vi) Spill diversion ponds; (vii) Retention ponds; or (viii) Sorbent materials.	§6	✓
112.7(c)(2)	For offshore facilities: (i) Curbing or drip pans; or (ii) Sumps and collection systems.	NA	NA
112.7(d)	When installation of structures or equipment, as outlined in 112.7(c) and (h)(1) and 40 CFR 112.8(c)(2), (c)(11), 112.9(c)(2), 112.10(c), 112.12(c)(2), 112.12(c)(11), 112.13(c)(2) and 112.14(c) is not practicable, clearly explain why such measures are not practicable; for bulk storage containers, conduct periodic integrity testing of the containers and periodic integrity and leak testing of the valves and piping, unless you have submitted a response plan under 40 CFR 112.20 provide the following in your SPCC Plan: 1. Provide an oil spill contingency plan described in 40 CFR 109; and	NA	✓

South Plains College SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	**Description**	**Facility SPCC Plan**	**Visually Confirmed in Field**
	2. Provide a written commitment of manpower, equipment, and materials to control and remove harmful quantity of oil discharged.		
112.7(e)	Conduct inspections and tests required by this part in accordance with written procedures that you or the certifying engineer developed for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.	§7	✓
112.7(f)	Personnel, training, and discharge prevention procedures	--	--
112.7(f)(1)	At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rule, and regulations; general facility operations; and, the contents of the facility SPCC Plan.	§10	✓
112.7(f)(2)	Designate a person at each applicable facility who is accountable for discharge prevention and who reports to facility management.	§10	✓
112.7(f)(3)	Schedule and conduct discharge prevention briefings for your oil handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility. Such briefings must highlight and describe known discharges as described in § 112.1(b) or failures, malfunctioning components, and any recently developed precautionary measures.	§10	✓
112.7(g)	Security (excluding oil production facilities). Describe in your Plan how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; and address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges.	§9	✓
112.7(h)	Facility tank car and tank truck loading/unloading rack (excluding offshore facilities).	--	--
112.7(h)(1)	Where loading/unloading rack drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system for tank car or tank truck loading/unloading racks. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility.	NA	✓
112.7(h)(2)	Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks, or vehicle break interlock system in loading/unloading areas to prevent vehicles from departing before complete disconnection of flexible or fixed oil transfer lines.	NA	✓
112.7(h)(3)	Prior to filling and department of any tank car or tank truck, closely inspect for discharges the lowermost drain and all outlets of such vehicles, and if necessary, ensure that they are tightened, adjusted, or replaced to prevent liquid discharge while in transit.	NA	✓
112.7(i)	If a field-constructed aboveground container undergoes a repair, alteration, reconstruction or a change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or has discharged oil or failed due to brittle fracture failure or other catastrophe, evaluate the container of risk of discharge or failure due to brittle fracture or other catastrophe, and as necessary, take appropriate action.	NA	✓
112.7(j)	In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.	NA	✓
112.8(b), 112.12(b)	Facility Drainage (for onshore facilities, except oil production)	--	--
112.8 (b)(1), 112.12 (b)(1)	Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting, to ensure no oil will be discharged.	6.3.2	✓
112.8 (b)(2), 112.12 (b)(2)	Use valves of manual, open-and-closed design, for the drainage of diked areas. You may not use flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained storm water, as provided in paragraphs (c)(3)(ii), (iii), and (iv) of this section.	6.3.2	✓
112.8 (b)(3), 112.12 (b)(3)	Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.	6.3	✓
112.8 (b)(4), 112.12 (b)(4)	If facility drainage is not engineered as in paragraph (b)(3) of this section, equip the final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge retain oil in the facility.	6.3	✓

South Plains College SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	**Description**	**Facility SPCC Plan**	**Visually Confirmed in Field**
112.8 (b)(5), 112.12 (b)(5)	Where drainage waters are treated in more than one treatment unit and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge as described in § 112.1(b) in case there is an equipment failure or human error at the facility.	NA	✓
112.8 (c), 112.12 (c)	Bulk Storage Containers (for onshore facilities, except oil production)	--	--
112.8 (c)(1), 112.12 (c)(1)	Bulk storage containers. (1) Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature.	6.1	✓
112.8 (c)(2), 112.12 (c)(2)	Construct all bulk storage tank installations (except mobile refuelers and other non-transportation-related tank trucks) so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond.	§6	✓
112.8 (c)(3), 112.12 (c)(3)	Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, or pond, bypassing the facility treatment system unless you: (i) Normally keep the bypass valve sealed closed. (ii) Inspect the retained rainwater to ensure that its presence will not cause a discharge as described in § 112.1(b). (iii) Open the bypass valve and reseal it following drainage under responsible supervision; and (iv) Keep adequate records of such events, for example, any records required under permits issued in accordance with §§ 122.41 (j)(2) and 122.41 (m)(3).	6.3.2	✓
112.8 (c)(4)	Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.	NA	✓
112.8(c)(5)	Do not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.	NA	✓
112.8(c)(6)	Test or inspect each aboveground container for integrity on a regular schedule and whenever you make material repairs. You must determine, in accordance with industry standards, the appropriate qualifications for personnel performing tests and inspections, the frequency and type of testing and inspections, which take into account container size, configuration, and design (such as containers that are: shop-built, field-erected, skid-mounted, elevated, equipped with a liner, double-walled, or partially buried). Examples of these integrity tests include, but are not limited to: visual inspection, hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or other systems of non-destructive testing. You must keep comparison records and you must also inspect the container's supports and foundations. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices satisfy the recordkeeping requirements of this paragraph.	7.3	✓
112.8(c)(7)	Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.	NA	✓

South Plains College SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	**Description**	**Facility SPCC Plan**	**Visually Confirmed in Field**
112.8(c)(8)	Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices: (i) High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities, an audible air vent may suffice. (ii) High liquid level pump cutoff devices set to stop flow at a predetermined container content level. (iii) Direct communication between tank gauger and pumping station. (iv) Fast response system for determining liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers. (v) You must regularly test liquid level sensing devices to ensure proper operation.	Table 1 and §6	✓
112.8(c)(9)	Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in § 112.1(b).	NA	✓
112.8(c)(10)	Promptly correct visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts. You must promptly remove any accumulations of oil in diked areas.	§4 §6	✓
112.8(c)(11)	Position or locate mobile or portable oil storage containers to prevent a discharge as described in § 112.1(b). Except for mobile refuelers and other non-transportation-related tank trucks, you must furnish a secondary means of containment, such as a dike or catchment basin, sufficient to contain the capacity of the largest single compartment or container with sufficient freeboard to contain precipitation.	NA	✓
112.8(d)(1)	Facility Transfer Operations, Pumping, and Facility Process (onshore facilities, except oil production)	--	--
112.8(d)(1)	Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating. You must also cathodically protect such buried piping installations or otherwise satisfy the corrosion protection standards for piping in part 280 of this chapter or a State program approved under part 281 of this chapter. If a section of buried line is exposed for any reason, you must carefully inspect if for deterioration. If you find corrosion damage, you must undertake additional examination and corrective action as indicated by the magnitude of the damage.	NA	✓
112.8(d)(2)	Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.	NA	✓
112.8(d)(3)	Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.	NA	✓
112.8(d)(4)	Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.	§7	✓
112.8(d)(5)	Warn all vehicles entering the facility to be sure that no vehicle will endanger aboveground piping or other oil transfer operations.	§6.3.4	✓

South Plains College SPCC Plan Regulatory Cross Reference			
SPCC Rule Section	**Description**	**Facility SPCC Plan**	**Visually Confirmed in Field**
Appendix C to Part 112	Appendix C to Part 112 – Substantial Harm Criteria Section 2.1 A non-transportation-related facility with a total oil storage capacity greater than or equal to 42,000 gallons that transfers oil over water to or from vessels must submit a response plan to EPA. Section 2.2 Any facility with a total oil storage capacity greater than or equal to 1 million gallons without secondary containment sufficiently large to contain the capacity of the largest aboveground oil storage tank within each area plus sufficient freeboard to allow for precipitation must submit a response plan to the EPA. Secondary containment structures that meet the standard of good engineering practice for the purposes of this part include berms, dikes, retaining walls, curbing, culverts, gutters, or other drainage systems. Section 2.3 A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility could cause injury (as defined by 40 CFR 112.2) to fish and wildlife sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan. Facility owners or operators must determine the distance at which an oil spill could cause the appropriate formula presented in Attachment C-III to this appendix or a comparable formula. Section 2.4 A facility with a total oil storage capacity greater than or equal to 1 million gallons must submit its response plan if it is located at a distance such that a discharge from the facility would shut down a public drinking water intake, which is analogous to a public water system as described at 40 CFR 143.2(c).	Appendix E	✓

APPENDIX C

SPILL REPORTING FORM (EXAMPLE)

REPORT OF PETROLEUM
DISCHARGE, SPILLAGE, OR RELEASE

When did the incident occur? Date_____ Time_____

Where did the incident occur?_____

_____

_____

How did the incident occur?_____

_____

_____

Under whose control was the petroleum product at the time of the incident? Please give their name, mailing address and telephone number.

_____

_____

Who is the owner of the property onto which the spill occurred? If this is corporate property or property owned jointly, who represents the owners? Please give their name, mailing address and telephone number.

_____

_____

When was the incident verbally reported to the TCEQ -- Date_____ Time_____
Who reported the incident and whom were they representing? Please give their name, title, mailing address and telephone number.

_____

_____

What were the petroleum products released, spilled, or discharged? Give an exact description of each of the materials involved in the incident, including chemical names, percent concentrations, trade names, etc. Please attach a Material Safety Data sheet (MSDS) for each product involved. What were the quantities released, spilled, or discharged to each environmental medium (air, surface water, soil, groundwater)?

_____

_____

_____

Did any of the petroleum products travel beyond the property line? (NOTE: materials that enter the ground water are considered to have gone beyond the property line).

_____

_____

What actions are being taken to prevent reoccurrence of an incident of this type?

_____

_____

Were there any injuries as a result of this incident? If so, list the names of exposed individuals, their addresses, phone numbers, and describe their injuries.

_____

_____

What is the appropriate advice regarding medical attention necessary for exposed individuals?

Are there any known or anticipated health risks, acute or chronic, associated with the release of this chemical or medical advice that should be communicated?

Was the incident completely cleaned up by the time this report was submitted? If not, what are the anticipated remedial actions and their duration?

I hereby affirm that the foregoing statement is true to the best of my knowledge.

Signature	Title	Date

Print Name	Telephone Number

Street Address/P.O.Box	City/Town	State	Zip

This form may be reproduced or computerized as long as it contains all of the information requested and is on an 8-1/2" x 11" white paper, black type format. For serious incidents the questions may be answered in a narrative format which must include the preparer's affidavit.

APPENDIX D

MONTHLY INSPECTION LOGS

DIKE DRAINING LOG

MONTHLY SPCC PLAN INSPECTION LOG
South Plains College,
Levelland TX

Inspection Date: _____ Inspector Name/Title: _____

Inspection Time: _____ Weather Condition: _____

OIL-FILLED OPERATIONAL EQUIPMENT

Tank Location / Description	Free of Leaks or Spills		Units maintained in Good Condition (no corrosion, sturdy supports and foundations)		Problems Identified	Corrective Actions Taken & Date
	Accept	Unaccept	Accept	Unaccept		
ELEVATORS						
Library West						
Library East						
Student Center						
Tech Arts						
Texan Dome						
SPILL KITS FULLY STOCKED AND ACCESSIBLE?						
Library West						
YES	NO	YES	NO	YES	NO	

MONTHLY SPCC PLAN INSPECTION LOG
South Plains College,
Levelland TX

Inspection Date: _____ Inspector Name/Title: _____

Inspection Time: _____ Weather Condition: _____

BULK STORAGE CONTAINERS

Tank Location / Description	Secondary Containment Maintained (complete dike draining log as necessary)		Fill and Drain Valves Securely Locked		Free of Leaks or Spills		Containers and piping in Good Condition (no corrosion, sturdy supports and foundations)		Level Indicator Functional		Problems Identified (enter work order as necessary)	Corrective Actions Taken & Date
	Accept	Unaccept	Accept	Unaccept	Accept	Unaccept	Accept	Unaccept	Accept	Unaccept		
Gasoline AST (T1)												
Diesel AST (T2)												
Used Oil AST (T3)												
Belly Tanks (EG)												
Used Oil Drums – Ground and Maintenance (D1)												
Used Oil Drums – Auto/Diesel Building (D2)												

SPILL KITS FULLY STOCKED AND ACCESSIBLE?

Warehouse (T1)		Rodeo (T2)		Maintenance (D1)		Fine Arts (EG)					
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO

MONTHLY SPCC PLAN INSPECTION LOG
South Plains College,
Levelland TX

Inspection Date: _____ Inspector Name/Title: _____

Inspection Time: _____ Weather Condition: _____

BULK STORAGE CONTAINERS

Tank Location / Description	Secondary Containment Maintained (complete dike draining log as necessary)		Fill and Drain Valves Securely Locked		Free of Leaks or Spills		Containers and piping in Good Condition (no corrosion, sturdy supports and foundations)		Level Indicator Functional		Problems Identified (enter work order as necessary)	Corrective Actions Taken & Date
	Accept	Unaccept	Accept	Unaccept	Accept	Unaccept	Accept	Unaccept	Accept	Unaccept		
WASTE KITCHEN GREASE CONTAINERS												
Kitchen Grease (KG)												
SPILL KITS FULLY STOCKED AND ACCESSIBLE?												
YES NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	NO	

DIKE DRAINING LOG
South Plains College
Levelland, TX

Date	Dike or Secondary Containment Location	Name of SPC Personnel making Assessment	Visual Indication of oily sheen or film? (yes/no)*	Visual indication of discoloration (yes/no)*	Visual indication of oily sludge or discharge (yes/no)*	Dike drained to ground or pump and hauled by contractor?	If drained to ground**		If pumped and hauled, indicate name of contractor used
							Start and End time	Return drain valve to closed and locked position	

* If answer "yes" to any of the questions, the contents of the dike of secondary containment area must be pumped and hauled offsite

** If contents are drained to the ground, SPC personnel must be present during the entire draining activity, ensuring all drain valves are appropriately closed and locked after the draining event.

APPENDIX E

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA CHECKLIST

CERTIFICATION FOR FACILITIES THAT DO NOT POSE SUBSTANTIAL HARM

Facility Name: South Plains College

Facility Address: 1401 S College Ave, Levelland TX 79336

1. Does the facility have a maximum storage capacity greater than or equal to 42,000 gallons and do the operations include over water transfers of oil to or from vessels?

   Yes_____ No X

2. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility without secondary containment for each above ground storage area sufficiently large to contain the capacity of the largest above ground storage tank within the storage area?

   Yes_____ No X

3. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula[1] considered acceptable by the RA) such that a discharge from the facility could cause injury to an environmentally sensitive area as defined in Appendix D?

   Yes_____ No X

4. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III or an alternative formula[1] considered acceptable by the RA) such that a discharge from the facility would shut down a public drinking water intake?

   Yes_____ No X

5. Does the facility have a maximum storage capacity greater than or equal to one million (1,000,000) gallons and within the past 5 years, has the facility experienced a reportable spill in any amount greater than or equal to 10,000 gallons?

   Yes_____ No X

[1] If an alternative formula is used, documentation of the reliability and analytical soundness of the alternative formula must be attached to this form.

CERTIFICATION FOR FACILITIES THAT DO NOT POSE SUBSTANTIAL HARM

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Cary Marrow
Signature

Cary Marrow
Name (Please type or print)

Director Physical Plant
Title

11/7/11
Date

APPENDIX F

TRAINING ROSTER

South Plains College, **1401 S College Ave,** **Levelland TX 79336**		SPCC Plan Training Roster
Date:	Training Conducted By:	
Employee Name	Type of Training (Circle One)	Employee Signature
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
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	Initial / Refresher	
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	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	
	Initial / Refresher	

By signing this form, each employee acknowledges that he/she has received SPCC Plan training and has an understanding of all material presented, including his/her responsibilities with regard to spill prevention and response at South Plains College. Completed Training Rosters may be maintained in Appendix F of the SPCC Plan.

APPENDIX G

PHOTO LOG OF OIL STORAGE LOCATIONS

1,020-Gallon Warehouse Gasoline Tank (T1)

500-Gallon Rodeo Diesel Tank (T2)

500-Gallon Auto/Diesel Used Oil Tank (T3)

200-Gallon Fine Arts Emergency Generator Belly Tank (EG)

275-gallon Kitchen Grease AST (KG)

55-gallon Used Oil Drums at Auto/Diesel (D2)

APPENDIX H

SPCC PLAN RECORDS