CHAPTER 5
STANDARDS FOR MANAGEMENT OF HAZARDOUS OIL AND GAS WASTE

INTRODUCTION

The management standards of Rule 98 parallel those in the federal regulations. Rule 98 adopts by reference these management standards from Titles 40 and 49 of the Code of Federal Regulations (CFR), 1994 edition as amended through November 7, 1995. Appendix G provides a listing of these federal regulations.

In general, the applicable requirements or standards become more extensive as a generator's classification increases from CESQG to SQG to LQG. Management standards that are applicable to SQGs and LQGs include:

- accumulation time and disposition;
- use of tank systems and containers;
- manifesting and transportation;
- packaging, labeling, marking and placarding shipments;
- preparedness and prevention, contingency plans and emergency procedures, and personnel training;
- response to discharges; and
- recordkeeping and reporting.

Appendix H provides a table which presents a general overview of the Rule 98 requirements applicable to CESQGs, SQGs, and LQGs.

The following sections of Chapter 5 provide guidance, beginning with the reduced standards applicable to CESQGs, and continuing with standards applicable to LQGs and SQGs. The standards applicable to transporters are presented in Chapter 8.

STANDARDS FOR MANAGEMENT OF HAZARDOUS OIL AND GAS WASTE BY CESQGS

CESQG standards are much less stringent than those for SQGs and LQGs. For example, requirements regarding manifesting and transportation, preparedness and prevention, and contingency plans and emergency procedures do not apply to CESQGs. Also, CESQGs are not required to notify the RRC and do not have a time limit on their hazardous waste accumulation. The reduced standards applicable to CESQGs are found in 40 CFR §261.5. The standards for management of hazardous oil and gas waste which apply to CESQGs are discussed in the following sections.

CESQG Fee Exemption

A generator who is classified as a CESQG during all months of the entire calendar year in which he generates hazardous oil and gas waste ***is not*** subject to the annual fee.

CESQG Management of Hazardous Oil and Gas Waste

Transport to Another Facility: With a few exceptions (including applicability of other state and federal requirements), a generator must send his waste to an authorized facility for treatment, storage, disposal, recycling, or reclamation. For LQGs and SQGs, this means the waste must be sent to a facility that has obtained a permit in accordance with federal hazardous waste regulations. However, a CESQG may send his waste to:

- a facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste (EPA requires nonhazardous waste landfills to be specifically permitted to accept CESQG waste); or

- a centralized waste collection facility (CWCF) that meets the requirements of subsection (m)(3) of Rule 98 (CWCFs are described below).

Also, CESQGs are not required to use the hazardous waste manifest described on page 5-31. However, in some instances a CESQG may find he needs to use a manifest. If that is the case, refer to Appendix I for instructions for use of the manifest and "generic numbers" for oil and gas operators' use.

Centralized Waste Collection Facilities: Rule 98, subsection (m)(3), provides an additional and beneficial option for CESQGs. An operator who has more than one CESQG site may accumulate the hazardous waste from those CESQG sites at a Centralized Waste Collection Facility (CWCF). Prior to receipt of CESQG hazardous oil and gas waste generated off-site, a person who operates a CWCF must register with the RRC by filing with the RRC a notice that includes the following information:

- a map showing the location of the CWCF and each individual hazardous oil and gas waste CESQG site that may contribute waste to the collection facility. In lieu of a map, the person who operates the CWCF may provide to the RRC the name and lease number, field name and number, or other identifying information acceptable to the RRC, of the CWCF and each generation site that may contribute waste to the collection facility;

- the person's P-5 operator number; and

- the EPA ID number (if one exists) for the CWCF host site.

All hazardous oil and gas waste received at the CWCF must be kept in closed containers that are marked with the words "Hazardous Waste."

A person operating a CWCF shall not maintain at the CWCF at any one time more than 5,000 kilograms (11,023 pounds) of hazardous oil and gas waste or more

than five kilograms (11 pounds, or about five quarts) of any acute hazardous oil and gas waste (those on the "P-list" in 40 CFR §261.33(e), provided in Appendix C).

CESQG On-Site Treatment, Storage, Disposal, Recycling, or Reclamation of Hazardous Oil and Gas Waste

CESQGs are subject to the general prohibition of treating, storing, disposing of, recycling, or reclaiming hazardous oil and gas waste on the generation site. However, Rule 98 provides certain exceptions to the general prohibition. The following exceptions apply to CESQGs.

CESQGs do not have to comply with the LQG/SQG container management standards. However, a CESQG is subject to certain requirements if he mixes certain wastes with hazardous oil and gas waste in his containers. Rule 98, subsection (k)(3), provides that CESQGs, and only CESQGs, may mix their hazardous oil and gas waste with nonhazardous waste in a container even though the resultant mixture exceeds the accumulation quantity limitations for CESQGs (see Chapter 3), ***unless*** the mixture exhibits any of the hazardous waste characteristics of the hazardous oil and gas waste in the mixture.

In addition, if a CESQG mixes his hazardous oil and gas waste with used oil, the mixture is subject to standards for the management of used oil found in 40 CFR Part 279 (Rule 98, subsection (k)(3)). (Note: See 40 CFR §§261.5(b) and 279.10(b)(3).) If the mixture is destined to be burned for energy recovery, it must also meet the specification requirements found in 40 CFR §279.11. Additionally, any material produced from such a mixture by processing, blending, or other treatment must also meet the specification requirements if it is destined to be burned for energy recovery.

CESQG On-Site Treatment of Hazardous Oil and Gas Waste: CESQGs ***are not*** required to comply with the standards for the use of containers or tank systems. However, a CESQG may treat CESQG hazardous oil and gas waste on-site in a container or tank. If a CESQG treats hazardous oil and gas waste in a container or tank, he must comply with the container requirements or the tank system requirements (see “Standards for Use of Containers” and “Standards for Use of Tank Systems” in this chapter).

LQG AND SQG MANAGEMENT STANDARDS: PREPAREDNESS AND PREVENTION

General Requirements

In addition to all other applicable requirements of Rule 98, all generators of hazardous oil and gas waste must employ reasonable and appropriate measures (considering the nature and location of the facility and the types and quantities of hazardous oil and gas waste maintained at the site) in the operation and maintenance of the generation site to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous oil and gas wastes or hazardous oil and gas waste constituents to air, soil, or surface water that could threaten human health or the environment.

LQG and SQG Preparedness and Prevention

LQGs and SQGs who accumulate hazardous oil and gas waste at the generation site must comply with 40 CFR Part 265, Subpart C, as required by Rule 98, subsection (h). These requirements are somewhat flexible, in that the measures taken need only address the level of hazard posed by the waste being managed. A description of each requirement is provided below:

Required Equipment: All facilities must be equipped with the following, ***unless*** none of the hazards posed by the waste handled at the facility could require a particular kind of equipment specified below:

- An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel.

- A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance (e.g., fire department or emergency response team).

- Portable fire extinguishers, appropriate fire control equipment, spill control equipment, and decontamination equipment.

- Water at adequate volume and pressure to supply hose streams or foam producing equipment, or automatic sprinklers, or water spray systems.

Testing and Maintenance of Equipment: All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

Access to Communications or Alarm System: ***Unless*** the equipment listed above is not required:

- all personnel involved in an operation must have immediate access to an internal alarm or emergency communication device whenever hazardous waste is being poured, mixed, spread, or otherwise handled, and

- if only one person is on an operating site, he or she must have immediate access to a communications device capable of summoning emergency assistance.

Required Aisle Space: LQGs and SQGs must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, ***unless*** aisle space is not needed for any of these purposes.

Arrangements With Local Authorities: LQGs and SQGs must attempt to make arrangements with the following organizations to familiarize them with the facility (e.g., site layout, road access, and types/hazards of the handled waste) and assign response responsibility (e.g., overlapping jurisdictions), ***as appropriate*** for the type of waste handled and the potential need for their particular services:

- police departments,
- fire departments,
- emergency response teams (contractors),
- equipment suppliers,
- state emergency response teams (e.g., RRC), and
- local hospitals.

Where state or local authorities decline to enter into such an arrangement, you must document the refusal in the facility's operating record.

LQG AND SQG MANAGEMENT STANDARDS: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

The Contingency Plan and Emergency Procedures requirements of Rule 98, subsection (i), differ for LQGs and SQGs. LQG requirements are more extensive than SQG requirements.

LQG Contingency Plan and Emergency Procedures Requirements

A LQG who accumulates hazardous oil and gas waste at the generation site must comply with the contingency plan and emergency procedures provisions of 40 CFR Part 265, Subpart D. These provisions are described below.

Purpose and Implementation of the Contingency Plan: The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water. Whenever such an event occurs, the provisions of the plan must be immediately carried out.

Under some circumstances, a site may be required to prepare emergency response plans required by regulations other than Rule 98 and federal hazardous waste regulations. EPA, as the chair of the National Response Team, has provided an **"Integrated Contingency Plan Guidance"** intended to be used by facilities to prepare emergency response plans. The intent of the "Integrated Contingency Plan Guidance" is to provide a mechanism for consolidating multiple plans that facilities may have prepared to comply with various regulations into one functional emergency response plan. EPA's notice of this guidance is provided in 61 *Federal Register* 28642 (Wednesday, June 5, 1996). Also, a correction to the June 5, 1996, notice was published in 61 *Federal Register* 31103 (June 19, 1996). EPA clarifies that the policies set out in the notices are intended solely as guidance. Copies of the "Integrated Contingency Plan Guidance" can be obtained by calling EPA's EPCRA/RCRA/Superfund Hotline at (800) 424-9346.

Content of the Contingency Plan: Contingency plans must contain certain information. Plans required under other regulations, such as Spill Prevention Control and Countermeasures Plans (SPCC Plans required by 40 CFR Part 112), may be used as contingency plans if modified to include all information required by Rule 98, subsection (i). Rule 98 requires that the plan must:

- describe the actions facility or site personnel must take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents;

- describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services (see "Preparedness and Prevention");

- list the names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and designate the primary emergency coordinator and alternate emergency coordinators;

- list all emergency equipment at the facility or site (e.g., fire extinguishing systems), and decontamination equipment (where required), including the location, physical description, and capabilities (a brief outline) of the equipment; and

- include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary (the evacuation plan must describe signals to begin evacuation and primary and alternate evacuation routes).

Copies of the Contingency Plan: A copy of the contingency plan and all revisions must be maintained at the facility or site. Also, a copy of the contingency plan must be submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon.

Amendment of the Contingency Plan: The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

- applicable regulations are revised;

- the plan fails in an emergency;

- the facility or site changes (e.g., in its design, construction, operation, or maintenance) in such a way that materially increases the potential for an emergency event or the response necessary for an emergency event;

- the list of emergency coordinators changes; or

- the list of emergency equipment changes.

Emergency Coordinator: The emergency coordinator is responsible for coordinating all emergency response measures. At all times, at least one emergency

coordinator (either primary or alternate) must be either on-site or on call (i.e., able to reach the site within a short period of time).

The emergency coordinator must be thoroughly familiar with all aspects of the contingency plan and all operations and activities at the facility or site. In addition, the emergency coordinator must have the authority to commit the resources needed to carry out the contingency plan.

Emergency Procedures: Whenever there is an imminent or actual emergency situation, the emergency coordinator (or when on call, his designee) must immediately activate internal facility or site alarms or communications systems, where applicable, to notify all personnel. The emergency coordinator must also immediately notify the appropriate state or local agencies with designated response roles, if their help is needed.

Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and the areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary by chemical analysis. Concurrently, the emergency coordinator must assess possible hazards to human health and the environment, both direct and indirect, that may result from the emergency (e.g., toxic gases that are generated).

If the emergency coordinator determines that the emergency situation could affect areas outside the facility, he must make the following immediate notifications:

- the National Response Center (**24-hour toll free number: 800-424-8802**; also see "Discharges, Reporting Requirements" in Chapter 6); and

- the appropriate local authorities if the assessment indicates that evacuation may be necessary (also, must be available to help in making the decision to evacuate).

During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers. In the event processes or operations are stopped, the emergency coordinator must also monitor for leaks, pressure buildup, gas generation, or ruptures, wherever this is appropriate.

Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

The emergency coordinator must ensure that in the affected areas of the facility:

- no waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; (see Appendix J for examples of incompatible wastes); and

- all emergency equipment listed in the plan is cleaned and fit for its intended use before operations are resumed.

(Note: You must notify the Regional Administrator, the RRC, and appropriate state and local authorities that you have taken the above steps before resuming operations.)

You must record in the facility's operating record the time, date, and details of any incident that requires implementing the contingency plan. In addition, within 15 days, you must submit a written report to the Regional Administrator and the RRC. The report must include:

- name, address, and telephone number of the owner or operator;
- name, address, and telephone number of the facility;
- date, time, and type of incident;
- name and quantity of material(s) involved;
- the extent of injuries if any;
- an assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- estimated quantity and disposal of recovered material that resulted from the incident.

SQG Contingency Plan and Emergency Procedures Requirements

SQGs who accumulate hazardous oil and gas waste at the generation site must comply with the provisions of 40 CFR §262.34(d)(5) (relating to emergency response). These provisions require that:

- there must be at least one employee (the emergency coordinator) either on the premises or on call (i.e., able to respond in a short time) with the responsibility for coordinating emergency response measures specified below;
- the generator must post the following information next to the telephone: 1) the name and telephone number of the emergency coordinator, 2) location of fire extinguishers and spill control equipment, and if present, fire alarm, and 3) the telephone number of the fire department, unless the facility has a direct alarm; and
- the generator must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

The emergency coordinator or his designee must respond to any emergencies that arise. The appropriate responses are:

- in the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

- in the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil; and

- in the event of an emergency which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator must immediately notify the National Emergency Response Center (**NRC 24-hour toll free phone number: 800-424-8802**; also see "Discharges, Reporting Requirements" in Chapter 6).

The report to the NRC must include the following information:

- the name, address and U.S. EPA Identification Number of the generator;

- the date, time, and type of incident;

- the quantity and type of hazardous waste involved in the incident;

- the extent of injuries, if any; and

- the estimated quantity and disposition of recovered materials, if any.

Note, also, that the accumulation requirements (see Chapter 3) apply to any hazardous waste generated as a result of an emergency incident.

LQG AND SQG MANAGEMENT STANDARDS: PERSONNEL TRAINING

LQGs who accumulate hazardous oil and gas waste at the generation site must comply with the provisions of 40 CFR §265.16, which requires training of facility personnel. The personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with Rule 98. In particular, training should address the preparedness and prevention and contingency plan and emergency procedures requirements. Each person must receive training in hazardous waste management procedures relevant to the positions in which they are employed.

SQGs ***are not*** required to comply with these training requirements.

The training program must be directed by a person trained in hazardous waste management procedures.

Minimum Training Program Requirements

The training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

- procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- key parameters for automatic waste feed cut-off systems;
- communications or alarm systems;
- response to fires or explosions;
- response to ground water contamination incidents; and
- shutdown of operations.

Facility personnel must successfully complete the training program within 6 months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Employees must not work in unsupervised positions until they have completed the training requirements described above.

Also, each employee must take part in an annual review of the initial training described above.

Recordkeeping Requirements

The owner or operator of the facility must maintain the appropriate documents and records at the facility. For facilities ordinarily unmanned during business hours, the records must be maintained at the nearest office in the state having day-to-day operational control of the facility or site. The following documents and records are required:

- the job title for each position at the facility related to hazardous waste management, and the name of each employee filling each job;
- a written job description for each position at the facility related to hazardous waste management (Note: This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location, but must include the requisite skill, education, or other qualifications, and duties assigned.);
- a written description of the type and amount of both introductory and continuing training that will be given to each employee;
- records that document the required training or job experience has been given to facility personnel; and

- training records on current personnel until closure of the facility, and training records on former employees at least three years after the last day the employee worked at the facility. (Note: Training records may accompany personnel transferred within the same company.)

LQG AND SQG MANAGEMENT STANDARDS: STANDARDS FOR USE OF CONTAINERS

Standards for the use of containers for hazardous oil and gas waste vary, depending on the generator classification. In general, the requirements increase as the volume of generated waste increases.

LQGs and SQGs must clearly mark each container being used to accumulate hazardous oil and gas waste on-site with the words "Hazardous Waste" and with the date accumulation begins. The container and its marking must be in a manner and location visible for inspection.

LQGs and SQGs accumulating hazardous oil and gas waste in containers must also comply with the provisions of 40 CFR Part 265, Subpart I (relating to use and management of containers), except that SQGs do not have to comply with 40 CFR §265.176 (relating to distance from property lines and noted below). 40 CFR Part 265, Subpart I requires that:

- the container be in good condition and not leak, and if the container begins to leak, the hazardous waste must be transferred to a container in good condition (or managed in some other way that complies with 40 CFR Part 265, Subpart I);

- the container be compatible with the hazardous waste (i.e., the hazardous waste will not impair the ability of the container to contain the waste);

- the container must always be closed, except when necessary to add or remove waste, and must not be opened, handled, or stored in a manner which may cause a rupture or leak;

- the owner or operator must inspect, at least weekly, the container storage area for leaks and deterioration (caused by corrosion or other factors); and

- containers holding ignitable or reactive waste must be located at least 50 feet from the facility's property line (***this requirement does not apply to SQGs***).

40 CFR Part 265, Subpart I also requires special handling of incompatible wastes in containers (see Appendix J for examples of incompatible wastes). Subpart I requires that:

- incompatible wastes not be placed in the same container;

- hazardous waste must not be placed in an unwashed container that previously held an incompatible waste; and

- a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated by means such as a dike or wall.

Note: You may mix incompatible wastes in a container if you comply with 40 CFR §264.17(b) (also see "Elementary Neutralization Units");

Organic Air Emission Standards for Containers

40 CFR, Subpart I, requires that LQGs use containers in compliance with the organic air emission standards in 40 CFR Subparts AA, BB and CC. A discussion of these requirements is provided on page 5-17.

LQG AND SQG MANAGEMENT STANDARDS: STANDARDS FOR USE OF TANK SYSTEMS

Standards for the use of tank systems (Rule 98, subsection (l)), also vary, depending on the generator classification. The requirements are greater for LQGs than for SQGs. CESQGs ***are not*** required to comply with the standards for the use of tank systems.

LQGs and SQGs must clearly label or mark each tank being used to accumulate hazardous oil and gas waste on-site with the words "Hazardous Waste."

LQG Standards for Use of Tank Systems

LQGs accumulating hazardous oil and gas waste in tanks must comply with the provisions of 40 CFR Part 265, Subpart J, except §§265.197(c) and 265.200.

Tanks are exempted from these requirements under numerous conditions (see 40 CFR §265.1(c) for complete list). Exemptions that may be applicable to RRC-regulated operators include:

- elementary neutralization units or wastewater treatment units (defined in Appendix L), provided that the operator is diluting hazardous ignitable wastes or corrosive wastes and complying with 40 CFR §265.17(b) (see "Elementary Neutralization Units"), and

- ***in general***, tanks used in treatment or containment activities during immediate response to a discharge of a hazardous waste or an imminent and substantial threat of a discharge of hazardous waste.

In general, the provisions that apply to LQGs are as follows.

Assessment of Tank System Integrity: The integrity of the tank system must be assessed to determine that it is not leaking or unfit for use and that it is adequately designed and has sufficient structural strength and compatibility with the wastes to ensure it will not fail. An assessment must consider design standards, hazardous characteristics of the waste to be handled, existing corrosion protection methods,

documentation of the age of the tank (or estimate), and results of a leak test, internal inspection, or other tank integrity examination. A leak test is required for non-enterable, underground tanks and must be capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects (also required if used for other tanks). The assessment must be performed within 12 months after the date that the waste becomes a hazardous waste. Finally, the assessment must be reviewed and certified by an independent, qualified, registered professional engineer. The engineer's certification must state:

> *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Design and Installation of New Tank Systems or Components: A LQG must also ensure that new tank systems or components are adequately designed (e.g., foundation, structural support, seams, connections, and pressure controls) and that the system has adequate structural strength, waste compatibility, and corrosion protection so that it will not collapse, rupture, or fail. These requirements are fairly detailed and may be found in 40 CFR §265.192. In general, an assessment similar to the one described for existing tank integrity (including certification by an engineer) must be performed. In addition, the assessment must consider the potential for corrosion if the tank is or will be in contact with the soil or with water and a determination of the type and degree of external corrosion protection that are needed to ensure the integrity of the tank system or component.

Containment and Detection of Releases: Secondary containment must be (exceptions are discussed below) provided for all new and existing tank systems in order to prevent the release of hazardous waste or hazardous waste constituents to the environment. (Note: *New tank system* and *existing tank system* are defined in Appendix L). Secondary containment systems must be capable of preventing the migration of wastes or accumulated liquid out of the system and capable of detecting and collecting releases and accumulated liquids until the collected material is removed. Secondary containment must include one or more of the following devices: 1) a liner (external to the tank), 2) a vault, 3) a double-walled tank, or 4) an equivalent device as approved by the Regional Administrator and the RRC. The secondary containment requirements are fairly detailed and may be found in 40 CFR §265.193.

Secondary containment ***is not*** required under certain circumstances. Tank systems, including sumps (see definition), that serve as part of a secondary containment system are exempted from these requirements. If inspected for leaks on a daily basis, any ancillary equipment such as aboveground piping, welded flanges, welded joints and connections, sealless or magnetic coupling pumps, sealless valves, and pressurized aboveground piping systems with automatic shut-off devices are not

required to have secondary containment. Also, a LQG may obtain from the Regional Administrator and the RRC (see 40 CFR §265.193(h) for procedure) a variance from the secondary containment requirements if it is demonstrated that either: 1) alternative design and operating practices, together with location characteristics, will prevent the migration of hazardous waste or hazardous waste constituents into ground water or surface water as effectively as secondary containment; or 2) a release that does migrate to ground water or surface water poses no substantial present or potential hazard to human health or the environment. (Note that if such a release occurs, you must comply with certain release mitigation and cleanup requirements.) New underground tank systems are not eligible for this variance. Numerous factors (found in 40 CFR §265.193(g)(1) and (2)) are considered in evaluating a variance request.

Also, tank systems that are used to store or treat hazardous waste which contains no free liquids and that are situated inside a building with an impermeable floor are exempted from the containment and release detection requirements of 40 CFR §265.193.

General Operating Requirements: In general, you must operate a hazardous waste tank system such that a release of the waste to the environment does not occur. Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail. Also, you must use appropriate controls and practices (i.e., check valves, dry disconnect couplings, overfill prevention controls, maintenance of sufficient freeboard in uncovered tanks).

Inspections: LQGs are required to perform inspections of tank systems and remedy any deterioration or malfunction that is found. Also, the inspections must be documented in the operating record of the facility (i.e., site). LQGs must inspect daily:

- overfill/spill control equipment,
- aboveground portions of the tank system (for corrosion or leaks),
- data gathered from monitoring and leak detection equipment,
- the area and construction materials immediately surrounding the externally accessible portions of the tank system, and
- the integrity of the secondary containment system.

Cathodic protection systems (if present) must also be inspected, but at less frequent intervals. A cathodic protection system must be inspected for proper operation 6 months after installation and annually thereafter. Also, all sources of impressed current must be inspected and/or tested at least every other month. The following references may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems: 1) National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85) - Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and 2) American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems."

Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems: A LQG is required to follow certain procedures if a hazardous waste tank system leaks, suffers a spill, or becomes unfit for use. The LQG must immediately remove the system from service and the take the following steps:

- immediately stop the flow of hazardous waste into the tank system or secondary containment system and determine the cause of the release;

- remove the waste from the tank system or secondary containment system within 24 hours after detection or, if it can be demonstrated for a tank system that it is not possible, at the earliest practicable time remove as much of the waste as necessary to prevent further release and to allow inspection and repair (Note: All waste must be removed from a secondary containment system within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.); and

- prevent further migration of the waste to soils or surface water and remove and properly dispose of any visible contamination of the soil or surface water.

A release or spill of hazardous waste from a tank or secondary containment system is a discharge and must be reported as required by subsection (x) of Rule 98 (see Chapter 6). Notification and reporting is not required if the quantity of the spilled or leaked waste is less than or equal to one pound, and the released waste is immediately contained and cleaned up.

Closure and Post-Closure Care: The requirements for closure and post-closure care of tank systems and secondary containment systems (40 CFR §265.197) vary depending on the circumstances. These requirements are fairly extensive, and the applicable parts of the CFR (discussed below) should be studied. In general, a LQG is required to remove or decontaminate all waste residues, contaminated system equipment and components, contaminated soils, and structures. The closure plan, closure activities, and financial responsibility must meet the requirements of 40 CFR Part 265 Subparts G and H. If all contaminated soils cannot be practicably removed or decontaminated, then the tank system must be closed in accordance with the requirements of 40 CFR §265.310 (relating to requirements for landfill closure).

Special Requirements for Incompatible Wastes: Incompatible wastes, or incompatible waste and materials, must not be placed in the same tank system. Also, hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material (Appendix J provides examples of incompatible wastes).

These requirements do not apply if 40 CFR §265.17(b) is complied with (also see "Elementary Neutralization Units").

Organic Air Emission Standards for Tank Systems: 40 CFR Part 265, Subpart J, requires that LQGs operate tank systems in compliance with the organic air emission standards in 40 CFR Subparts AA, BB and CC. A discussion of these requirements is provided on page 5-17.

SQG Standards for Use of Tank Systems

SQGs accumulating hazardous oil and gas waste in tanks must comply with the provisions of 40 CFR §265.201. These requirements are similar to some of the LQG requirements. General operating requirements are that:

- treatment or storage of hazardous waste in tanks must comply with 40 CFR §265.17(b) (see "Elementary Neutralization Units"),
- hazardous wastes or treatment reagents must not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail,
- uncovered tanks must be operated to maintain at least 2 feet of freeboard, unless the tank is equipped with a containment structure, a drainage control system, or a diversion structure with a capacity equal to the volume of the top 2 feet of the tank, and
- if waste is continuously fed into the tank, the tank must be equipped with a means to stop the waste inflow (e.g., a cut-off system or bypass).

SQGs must also inspect hazardous waste tank systems. Where present, SQGs must inspect:

- discharge control equipment (e.g., waste feed cut-off systems, by-pass systems, and drainage systems) at least once each operating day, to ensure that it is in good operating order,
- data gathered from monitoring equipment at least once each operating day to ensure that the tank is being operated according to its design,
- the level of the waste in the tank at least once each operating day to ensure 2 feet of freeboard is maintained (if required),
- the construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams, and
- the construction materials of, and the area immediately surrounding, discharge confinement structures at least weekly to detect erosion or obvious signs of leakage.

Upon closure of a facility (i.e., site), SQGs must remove all hazardous waste from tanks, discharge control equipment, and discharge confinement structures.

SQGs must also comply with special requirements for ignitable or reactive waste. These wastes must not be placed in a tank unless: 1) the waste is treated, rendered, or mixed before or immediately after placement in a tank so that the resulting waste, mixture, or dissolution of material is no longer ignitable or reactive and 40 CFR §265.17(b) is complied with; or 2) the waste is stored or treated in such a way

that it is protected from any material or conditions that may cause the waste to ignite or react; or 3) the tank is used solely for emergencies. Also, if a SQG treats or stores ignitable or reactive waste in a covered tank, he must comply with the buffer zone requirements found in Tables 2-1 through 2-6 of the National Fire Protection Association's (NFPA) "Flammable and Combustible Liquids Code," (1977 or 1981).

Finally, SQGs must comply with requirements for incompatible wastes unless 40 CFR §265.17(b) is complied with (see "Elementary Neutralization Units"). Otherwise the SQG: 1) must not place incompatible wastes, or incompatible wastes and materials, in the same tank, and 2) must not place hazardous waste in an unwashed tank which previously held an incompatible waste or material. Appendix J provides examples of incompatible wastes.

ORGANIC AIR EMISSION STANDARDS FOR TANKS AND CONTAINERS

LQGs must comply with the organic air emission standards for tanks and containers of Subparts AA, BB, and CC of 40 CFR Part 265. 40 CFR Part 265 Subparts AA, BB, and CC establish standards for the control of air emissions from process vents, equipment leaks, and tanks and containers used to store or treat hazardous waste. In particular, the standards target volatile organic compounds. SQGs and CESQGs are not subject to these organic air emission standards.

Subpart AA is covered by 40 CFR 265.1030-1035 and applies to air emission standards for process vents. Subpart BB is covered by 40 CFR 265.1050-1064 and applies to air emission standards for equipment leaks. Subpart CC is covered by 40 CFR 265.1080-1091 and applies to air emission standards for tanks, surface impoundments, and containers. The final rule for these standards was published in 61 *Federal Register* 59932 (November 25, 1996). This final rule should be referenced for substantive amendments to the regulations in 40 CFR (edition revised as of July 1, 1995).

This guidance is intended to provide general information regarding the applicability and basic standards required for the control of air emissions. Because many of the requirements under the standards are detailed and specific to the type of device used, the reader is referred to the CFR and the final rule in 61 *Federal Register* 59932 (November 25, 1996). (**Important note:** The final rule in 61 *Federal Register* makes significant revisions and amendments to Subparts AA, BB, and CC. Any reference to the federal regulations must include this *Federal Register* notice.)

General Applicability

In general, 90-day accumulation units operated by LQGs are subject to the requirements of 40 CFR Part 265 Subparts AA, BB, and CC. SQGs and CESQGs **are not** subject to these requirements.

Other exclusions include:

- elementary neutralization units;

- waste water treatment systems regulated under CWA;
- satellite accumulation units;
- units with CAA controls for air toxics or new source performance standards;
- units used on-site for federal or state cleanups;
- containers with a capacity less than 26.4 gallons (0.1 m3);
- units managing mixed radioactive and hazardous waste;
- tanks or containers managing wastes from organic peroxide manufacturing or laboratory operations (provided certain notification requirements are met);
- units used by LQGs to recycle hazardous waste or manage reclaimed oil; and
- transporters storing manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR §262.30 at a transfer facility for a period of ten days or less.

Subpart AA: Air Emission Standards for Process Vents (40 CFR §§265.1030-1035)

Applicability: Subpart AA standards apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw, if these operations are conducted in one of the following:

- A unit that is subject to the permitting requirements of part 270, or
- A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR §262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 40 CFR Part 270, or
- A unit that is exempt from permitting under the provisions of 40 CFR §262.34(a) (i.e., a 90-day tank or container).

For the purposes of Rule 98 applicability, this means LQGs are subject to these requirements. An example would be a process vent associated with an air stripping operation or carbon adsorption unit treating benzene-contaminated hydrotest water in a 90-day tank.

Standards for Process Vents: Total organic emissions from all affected process vents at the facility must be reduced below 1.4 kg/h (3 lb./h) and 2.8Mg/yr

(3.1 tons/yr.); or by the use of a control device, total organic emissions from all affected process vents at the facility must be reduced by 95 weight percent.

Standards for Closed Vent Systems and Control Devices: A control device involving vapor recovery (e.g., a condenser or carbon adsorber) must achieve the same reduction efficiency as for process vents.

Enclosed combustion devices (e.g., a vapor incinerator, boiler, or process heater) and flares will very rarely be used by operators regulated by Rule 98. In such an instances, the operator should refer to 40 CFR §265.1033(c)-(e). Standards for these devices are fairly extensive.

Also, control devices must be monitored and inspected to ensure proper operation and maintenance. 40 CFR §265.1033(f) establishes these requirements, which include flow and temperature monitoring for various control devices. 40 CFR §265.1034 establishes test methods and procedures (e.g., to test for compliance with no detectable emissions).

Recordkeeping Requirements: Recordkeeping requirements for process vents, closed vent systems and control devices are detailed. Essentially all information and data regarding the installation, description, locations, monitoring, and maintenance (including repairs) of these devices is required. 40 CFR §265.1035 provides the recordkeeping requirements.

Subpart BB: Air Emission Standards for Equipment Leaks (40 CFR §§265.1050-1064)

Applicability: 40 CFR Subpart BB standards apply to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in one of the following:

- A unit that is subject to the permitting requirements of part 270, or
- A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR §262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 40 CFR Part 270, or
- A unit that is exempt from permitting under the provisions of 40 CFR §262.34(a) (i.e., a 90-day tank or container).

For the purposes of Rule 98 applicability, this means LQGs are subject to these requirements. An example would be equipment associated with an air stripping operation treating benzene-contaminated hydrotest water in a 90-day tank.

40 CFR §265.1050(d) and (e) **exclude** from the Subpart BB requirements equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for a period of less than 300 hours per calendar year; and equipment that is in vacuum service. However, the exclusion applies only if

records are kept for such equipment. Please note that standards for test methods and procedures and recordkeeping do apply to these types of equipment.

Standards: Subpart BB establishes standards for the monitoring, inspection, and operation of:

- pumps in light liquid service;
- compressors;
- pressure relief devices in gas/vapor service;
- sampling connecting systems;
- open-ended valves or lines;
- valves in gas/vapor service or in light liquid service;
- pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors; and
- closed-vent systems and control devices.

Subpart BB establishes standards that address necessary delay of repairs. Also, alternative standards are provided for valves in gas/vapor service or in light liquid service. The alternative standards are based on less than 2% leakage and/or alternative work practices for leak detection and repair.

Subpart BB also establishes requirements regarding test methods and recordkeeping.

The standards cited above are specific to each type of equipment. Please refer to Subpart BB for detailed guidance.

Subpart CC: Air Emission Standards for Tanks, Surface Impoundments, and Containers (40 CFR §§265.1080-1091)

Applicability: Subpart CC requirements apply to all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to either subparts I (relating to use and management of containers), J (relating to tank systems), or K (relating to surface impoundments) of Part 40 CFR Part 265. Large quantity generators that accumulate hazardous oil and gas waste in tank systems and/or containers are subject to the requirements of Subpart CC. Please note that Rule 98, subsection (m)(1), prohibits the storage of hazardous oil and gas waste in surface impoundments at generation sites.

For the purposes of Rule 98, Subpart CC **excludes** from air emission standards for tanks and containers:

- a container that has a design capacity less than or equal to 0.1 m^3 (26.4 gallons);

- a tank in which an owner or operator has stopped adding hazardous waste and has begun implementing or completed closure pursuant to an approved closure plan;

- a waste management unit that is used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required under a federal or state corrective action authority;

- a waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act;

- *in general*, a hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation; and

- a tank that has a process vent. *Process vent* means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, or air or steam stripping operations.

In addition, Subpart CC excludes a tank or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste generation of less than 500 parts per million by weight (ppmw). The average VO concentration is determined using the waste determination procedures specified in 40 CFR §265.1084(a).* The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

* Note: The waste determination procedures in 40 CFR §265.1084(a) specify that organic compounds in the waste with Henry's law constant values of less than 0.1 mole-fraction-in-the-gas-phase/ mole-fraction-in-the-liquid-phase (which can also be expressed as 1.8x10-6 atmospheres/gram-mole/m3) at 25^{O} Celsius are not required to be included in the calculation of the average VO concentration. Appendix VI to 40 CFR Part 265 provides a list of organic compounds that meet this criteria.

Another exclusion from Part CC requirements is provided for a tank or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process. To fall under this exclusion, Subpart CC requires that one of several conditions be achieved. In particular, the conditions relate to specific processes that remove or destroy the organics contained in the hazardous waste, and the rates and efficiency of which are defined by procedures specified in 40 CFR §265.1084(a) and (b) (i.e., waste determination procedures). Please refer to 40 CFR §265.1083(c)(2) for these detailed requirements.

Also excluded by 40 CFR §265.1083(c)(4) is a tank or container for which all hazardous waste in the unit either meets the numerical concentration limits for organic hazardous constituents specified in the Land Disposal Restrictions (40 CFR §268.40) or has been treated by the treatment technology established by EPA or an equivalent method for the waste in 40 CFR §268.42(a) and (b), respectively

Standards for Tanks: Tanks that are not excluded from Subpart CC, as described above, must meet the control standards of 40 CFR §265.1085. The controls require that the organic vapors be contained within an enclosed unit, such as a closed-top tank. In some cases, the vapors must also be vented to a control device that destroys or removes at least 95% of the organics.

Tanks may be subject to either "Level 1" controls or "Level 2" controls, depending on the vapor pressure of the waste in the tank and the capacity of the tank. Level 1 controls apply to the following: tanks ≥40,000 gallons with vapor pressure <0.75 psi; tanks ≥20,000 but <40,000 gallons with vapor pressure <4.0 psi; and tanks <20,000 gallons with vapor pressure <11.1 psi. Level 1 controls simply require that tanks be equipped with a closed-top cover, such as a fixed roof. However, if the criteria (tank capacity versus vapor pressure) for Level 1 controls is exceeded, Level 2 controls must be implemented.

Level 2 control requirements are stricter. Level 2 tanks designs include: a tank with a fixed roof where the vapors are vented through a closed vent system to a control device that destroys or removes 95% of the organics; a fixed roof tank equipped with an internal floating roof; a tank equipped within an external floating roof; a pressure tank; or a tank located inside an enclosure that is vented through a closed vent system to an enclosed combustion control device.

40 CFR §265.1085 should be referenced for detailed requirements for the control of air emissions from tanks and the associated monitoring and recordkeeping requirements. Also, please refer to the appropriate sections of Subpart AA for specific guidance regarding closed vent systems and control devices.

Standards for Containers: Containers subject to Subpart CC requirements include 55-gallon drums, bags, totes, roll-offs, railcars, tank trucks, and any other portable unit in which hazardous waste is stored, treated, or otherwise handled.

As noted above, containers with a capacity less than 26.4 gallons (0.1 m^3) are excluded from the Subpart CC requirements. Containers with capacities greater than 26.4 gallons are subject to the Subpart CC requirements. However, Subpart CC

requirements reference, to some extent, the U.S. Department of Transportation (DOT) standards. The DOT standard containers are commonly used; therefore, most operators should already be complying with much of the Subpart CC requirements for containers.

Container standards are established for three levels. Level 1 containers are between 26.4 and 122 gallons; Level 2 containers are larger than 122 gallons and are not in light material service; and Level 3 containers are larger than 24.6 gallons and used to treat a hazardous waste by a stabilization process. Light material service means 20% or more of the organic material in the container has a vapor pressure greater than 0.3 kilopascals at 20°C.

Level 1 options for compliance include:

- meet DOT standards of 49 CFR Parts 107, 172, 173, 178, 179, and 180;
- cover the containers and ensure that there are no visible gaps; or
- use a vapor suppressing barrier on or above the container.

Level 2 options for compliance include:

- meet DOT standards of 49 CFR Parts 107, 172, 173, 178, 179, and 180;
- ensure no detectable emissions from the container under Method 21 of 40 CFR 60, Appendix A; or
- ensure the container is vapor tight under Method 27 of 40 CFR 60, Appendix A.

Level 3 options for compliance include:

- vent vapors from the container and destroy them in a control device; or
- put the container in a "Procedure T" 40 CFR 52.741 enclosure, vent vapors, and destroy them in a control device.

The container standards also include operation, design, inspection, repair, recordkeeping, and waste transfer requirements. 40 CFR §265.1087 should be referenced for detailed requirements.

LQG AND SQG MANAGEMENT STANDARDS: DISPOSITION OF HAZARDOUS OIL AND GAS WASTE

Rule 98, subsection (m), requires, with a few exceptions, that hazardous oil and gas waste be treated, stored, disposed of, recycled, or reclaimed at an off-site location as described below. In other words, Rule 98 generally prohibits such activities on the generation site. The exceptions to this general prohibition are also described below.

Transport to Another Facility

With a few exceptions (including applicability of other state and federal requirements), a generator must send his waste to one of the following categories of facilities for treatment, storage, disposal, recycling, or reclamation:

- an authorized recycling or reclamation facility;
- an authorized treatment, storage, or disposal facility;
- a facility located outside the United States, provided that the additional requirements applicable to international shipments (subsection (v)(1) of Rule 98) are met;
- a transfer facility, provided that the waste is packaged in containers as required by Rule 98, subsection (p), and the waste is stored at the transfer facility no longer than 10 days.

A Note on Transport of Hazardous Oil and Gas Waste Off-Site

Rule 8 (Water Protection) contains a provision that authorizes permitted oil and gas waste haulers, under certain conditions, to use RRC-permitted disposal facilities, disposal systems authorized under authority of a minor permit, and disposal facilities permitted by another agency or state. Rule 98, subsection (m)(2)(D), and Rule 8, subsection (f)(1(C)(vi), provide that the use of an EPA-registered hazardous waste transporter, when required by Rule 98, satisfies the permitted waste hauler requirements of Rule 8.

Also, Rule 8, subsection (d)(1), provides that disposition of hazardous oil and gas waste as required by Rule 98 is authorized under Rule 8. In other words, shipments of hazardous oil and gas waste in compliance with Rule 98 requirements (e.g., use of a manifest and EPA-registered hazardous waste transporter) is authorized under Rule 8 and a minor permit under Rule 8 is not required. The manifest will be accepted as RRC authorization for disposal at a facility permitted by another agency (e.g., TCEQ) or another state facility. Refer to "Manifests" in this chapter and "Hazardous Oil and Gas Waste Transporter Standards" in Chapter 8.

On-Site Treatment Permitted by Rule 98

Rule 98, subsection (m), provides options for on-site treatment of certain hazardous oil and gas waste. RCRA permits are not required for these treatment options, although a wastewater treatment unit will need a permit under the Clean Water Act. As well, the following treatment units are excluded from the requirements of 40 CFR Part 265 (see 40 CFR §§265.1(c)(9) and (10)).

Please note that on-site treatment will require you to meet the land disposal restriction requirements (LDR) of 40 CFR Part 268. Be sure to read the next section on LDR requirements.

On-site treatment includes the following options.

An **Elementary Neutralization Unit** is a device which:

- is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in 40 CFR §261.22, or they are listed in 40 CFR Part 261, subpart D, only for this reason; and

- meets the definition of tank, tank system, container, transport vehicle, or vessel in 40 CFR §260.10 (also see the definitions in Appendix L).

A **Totally Enclosed Treatment Facility** may be used for on-site treatment of corrosive, ignitable, and reactive hazardous oil and gas waste. A totally enclosed treatment unit is a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment (e.g., a pipe in which waste acid is neutralized). EPA interpretation of "production process" excludes transportation operations, such as truck, rail, or pipeline. Therefore, totally enclosed treatment units may be appropriate only at E&P sites such as natural gas processing plants.

A **Wastewater Treatment Unit** is a device which:

- is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and

- receives and treats or stores an influent wastewater that is a hazardous waste as defined in 40 CFR §261.3, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in 40 CFR §261.3, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in 40 CFR §261.; and

- meets the definition of tank or tank system in 40 CFR §260.10 (also see the definition in Appendix L).

Typically, a wastewater treatment used in E&P operations has a NPDES (National Pollutant Discharge Elimination System) permit under section 402 of the Clean Water Act.

Note that an operator of a wastewater treatment unit must comply with 40 CFR §265.17(b) if he is diluting ignitable hazardous oil and gas waste (other than those with high total organic content (TOC > 10%) as defined in 40 CFR §268.42, Table 2), or reactive waste to remove the characteristic before land disposal. 40 CFR §265.17(b) requires that the operator must take precautions to prevent reactions which:

- generate extreme heat or pressure, fire or explosions, or violent reactions;

- produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

- produce uncontrollable flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- damage the structural integrity of the device or facility; or
- through other like means threaten human health or the environment.

You must document compliance with the requirements listed above. This documentation may be based on references to published scientific or engineering literature, data from trial tests, waste analyses, or the results of treatment of similar wastes by similar processes and under similar operating conditions.

Special Note Regarding Treatment in an Elementary Neutralization Unit, Totally Enclosed Treatment Unit, or Wastewater Treatment Unit: Waste that is managed *immediately upon generation* in the appropriate unit listed above is not included in the volume calculation for the purpose of determining the generation site classification (see Rule 98, (z)(B)(2), and 40 CFR 261.5(c)(2)). However, it is important to note that the land disposal restrictions of 40 CFR Part 268 do apply to these treated wastes when they are removed from the unit (see Land Disposal Restrictions below).

On-Site Treatment in Tanks and Containers: While waste is being accumulated on-site in accordance with the requirements applicable to your generator classification (see subsection (f) of Rule 98), you may treat hazardous oil and gas waste on-site in tanks or containers that comply with the applicable provisions of subsections (k) and (l) of Rule 98 (standards for use of containers and tank systems, respectively).

LAND DISPOSAL RESTRICTIONS (40 CFR PART 268)

Rule 98, subsection (e)(2), requires that Large Quantity Generators (LQGs) and Small Quantity Generators (SQGs) identify those hazardous oil and gas wastes that are prohibited from land disposal under the provisions of 40 CFR Part 268. With respect to disposal of those prohibited wastes, the generator must first comply with the Land Disposal Restrictions (LDR) of 40 CFR Part 268. CESQGs ***are not*** subject to the LDR. The LDR were established by the Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act (HSWA) enacted on November 8, 1984). The LDR, under HSWA, largely prohibit the land disposal (defined below) of untreated hazardous wastes.

Important note: This section provides *general* guidance for complying with Rule 98 requirements regarding the LDR of 40 CFR Part 268. Oil and gas operators should refer to 40 CFR Part 268 for specific requirements to ensure they are in full compliance.

The LDR found in 40 CFR Part 268 are intended to protect human health and the environment by establishing specific treatment standards for hazardous waste, or meet specified levels for hazardous constituents, prior to land disposal. "Land disposal" means placement in or on the land, except in a corrective action management unit, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation,

salt bed formation, underground mine or cave, or placement in a concrete vault or bunker intended for disposal purposes. The LDR accomplishes its objective by establishing treatment standards for each hazardous waste code (e.g., D018 indicating benzene toxicity characteristic) and standards for managing hazardous wastes under the LDR (e.g., notifications, waste analysis plans, and recordkeeping). Once a hazardous waste is prohibited from land disposal, HSWA provides only two options: meet the treatment standards prior to land disposal; or dispose of the waste in a land disposal unit that has been found to satisfy the statutory no migration test.

Specifically, subsection (e)(2) of Rule 98 (relating to hazardous waste determination and land ban) requires that each LQG and SQG determine whether the hazardous oil and gas waste it generates is prohibited from land disposal under the provisions of 40 CFR Part 268. If the waste is prohibited from land disposal, the LQG or SQG must comply with all applicable provisions of 40 CFR Part 268 (relating to management of land ban wastes) prior to disposing of such waste.

Exclusions From Regulation Under LDR

As noted above, CESQGs are excluded from regulation under Part 268. Also excluded from regulation under Part 268 are low volume releases such as de minimis losses and laboratory chemicals that are mixed with a facility's wastewater and are discharged under the regulation of the Clean Water Act (CWA). Finally, Part 268 excludes newly identified or listed hazardous wastes for which EPA has yet to promulgate land disposal prohibitions or treatment standards.

Hazardous oil and gas wastes are also excluded from the LDR if they are disposed of in facilities that have met the "no migration test." No migration means that the disposal facility has demonstrated that there will be no migration of hazardous constituents from the unit far as long as the waste remains hazardous. Typically, "no migration" facilities have been Class I hazardous waste injection wells.

Subsection (e)(3)(B)(v) of Rule 98 exempts from Rule 98 regulation debris, as that term is defined in 40 CFR §268.2, that is an oil and gas waste and: 1) that contains or contained a hazardous oil and gas waste listed in 40 CFR, Part 261, Subpart D or that exhibits or exhibited a hazardous waste characteristic identified in 40 CFR Part 261, Subpart C; and 2) that has been treated using one of the required destruction technologies specified in Table 1 of 40 CFR §268.45 or that is determined by the administrator and RRC to be no longer contaminated with hazardous oil and gas waste.

LDR Requirements of Hazardous Oil and Gas Waste Generators

LQGs and SQGs must determine if their hazardous oil and gas waste is subject to LDR at the point of generation. Just as in making a hazardous waste determination, the generator may make this determination by testing or by applying knowledge. If a hazardous oil and gas waste is subject to LDR and does not meet the applicable treatment standards (see "Treatment Standards"), the generator must notify the receiving TSDF in writing (40 CFR §268.7(a)(1)). The written notice accompanies the hazardous waste manifest and includes the following information:

- EPA hazardous waste code(s);
- Identification of the waste as a wastewater or nonwastewater;
- Manifest number associated with the waste shipment;
- Waste analysis data (if available);
- For certain wastes, any additional hazardous constituents present; and
- 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.

If a generator's hazardous oil and gas waste already meets applicable treatment standards, the generator, in accordance with 40 CFR §268.7(a)(2), must submit the following signed certification, which accompanies the notification statement described above.

> I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d). I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

Generators may treat hazardous oil and gas waste in accumulation containers or tanks provided that the operator complies with the container and tank standards of 40 CFR Part 265, Subparts I and J, respectively. A generator who treats hazardous oil and gas waste to meet the LDR treatment standards must comply with the requirements of 40 CFR 268.7(a)(4), which require the preparation of a waste analysis plan (WAP). The WAP must justify the frequency of testing based on a detailed analysis of a representative sample of the waste. The WAP must contain all information necessary for proper treatment of the waste in accordance with Part 268, and must be retained in the facility's records. Generators who are conducting partial treatment, but not treating to meet treatment standards, or that are treating wastes in units not subject to 40 CFR 262.34 (relating to accumulation time), are not required to have a WAP.

LDR Requirements for Characteristically Hazardous Oil and Gas Waste

Just like listed hazardous wastes, restricted characteristically hazardous wastes must also meet treatment standards before they are eligible for land disposal. Since the LDR attach to the waste at the point of generation, treatment standards applicable to characteristic hazardous wastes cannot be circumvented by simply removing the characteristic. Once a waste has been decharacterized and treated to

meet standards that applied at the point of generation, however, the waste may be land disposed in a RCRA Subtitle D facility (e.g., an industrial waste landfill).

Special requirements have been established regarding wastes that exhibit a characteristic (40 CFR §268.9). As a general principle, a hazardous waste must meet all applicable treatment standards to be eligible for land disposal. For purposes of LDR, a generator with a listed hazardous waste must determine if the waste also exhibits any hazardous waste characteristics. If the listed waste exhibits a characteristic of hazardous waste, the treatment standard for both waste codes must be met. An exception occurs, however, when the treatment standard for the listed waste specifically includes a standard for the constituent that causes the waste to exhibit the characteristic. In that case, compliance with the treatment standard for the listed waste will satisfy both requirements, as the standard for the listed waste will operate in lieu of the treatment standard for the characteristic waste code.

While characteristic wastes are subject to the standard notification requirements of 40 CFR §268.7, there are special provisions for wastes from which the characteristic has been removed. When these wastes meet treatment standards and no longer exhibit any characteristic, LDR notification and certification paperwork need not accompany the shipment to a Subtitle D facility. Instead, 40 CFR 268.9(d) requires that a one-time notice and certification be filed with the implementing agency and maintained on site. Subsequent shipments of similar waste would not require additional notice except on an annual basis if the process or recipient facility changed. The one-time notice must include the following information:

- Name and address of the RCRA Subtitle D facility receiving the waste shipment;

- A description of the waste as initially generated, including the applicable EPA Hazardous Waste Number(s), treatability group(s), and underlying hazardous constituents (as defined in 40 CFR 268.2(i) in D001 and D002 wastes prohibited under 40 CFR §268.37, or D012-D043 wastes under 40 CFR §268.38); and

- One of the following certifications (40 CFR 268.7(b)(5)) signed by an authorized representative:

  - For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (40 CFR §268.41 or §268.43), or for wastes prohibited under 40 CFR §268.32 or RCRA section 3004(d) which are not subject to any treatment standards under 40 CFR Subpart D:

    > I certify under penalty of law that I personally have examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR part 268, subpart D, and all applicable prohibitions set

forth in 40 CFR 268.32 or RCRA section 3004(d) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- For waste with treatment standards expressed as technologies (40 CFR §268.42):

  I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.42. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- For wastes with treatment standards expressed as concentrations in the waste pursuant to 40 CFR §268.43, if in compliance with the treatment standards in 40 CFR Part 268 Subpart D is based in part or in whole on the analytical detection limit alternative specified in 40 CFR §268.43(c):

  I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 40 CFR part 264, subpart O or 40 CFR part 265, subpart O, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- For characteristic wastes D001, D002, and D012-D043 that are: subject to the treatment standards in 40 CFR §268.40 (other than those expressed as a required method of treatment); that are reasonably expected to contain underlying hazardous constituents as defined in 40 CFR §268.2(i); are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying constituents:

  I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false

certification, including the possibility of a fine and imprisonment.

Important Note: EPA has yet to provide regulatory guidance to clarify that hazardous waste which has been decharacterized and treated to LDR standards may be disposed of in Class II oil and gas waste disposal wells. Until that time, such treated hazardous oil and gas waste must be managed as described above or disposed of in a Class I disposal well.

SQG Manifest Exclusion and the LDR

Subsection (o)(1)(E) of Rule 98 provides that a SQG can establish a "hazardous waste reclamation agreement" (or "tolling agreement") and not be required to comply with the manifest provisions of Rule 98. One of the criteria for use of the hazardous waste reclamation agreement (Rule 98, (o)(1)(E)(iii)) is that the SQG comply with the provisions of 40 CFR §268.7(a)(10) (relating to land disposal restricted wastes subject to tolling agreements) if the waste is determined to be prohibited from land disposal under subsection (e)(2) of this section (relating to land disposal restricted wastes).

In general, 40 CFR §268.7(a)(10) requires that the SQG comply with the applicable notification and certification requirements for the initial shipment of the waste subject to the agreement. Also, a copy of the notification, certification, and tolling agreement must be kept on-site for at least three years after termination or expiration of the agreement.

Treatment Standards

40 CFR Part 268 establishes treatment standards for listed hazardous waste and characteristically hazardous waste. A hazardous waste may be land disposed only after being treated to meet the standards. The treatment standards are provided in two tables.

The "Consolidated Table of Treatment Standards" provided in 40 CFR §268.40 sets standards for specific wastewaters and non-wastewaters. The standards may be constituent concentrations of the waste or the waste extract, or the standards may be specified technologies.

The "Universal Treatment Standards (UTS)," provided in 40 CFR §268.48, set standards for hazardous constituents. The purpose of the UTS is to provide a consistent standard for hazardous constituents that may be present in several specific wastes listed in the Consolidated Table of Treatment Standards.

Hazardous oil and gas waste generators who wish to treat their waste on-site should refer to 40 CFR §§268.40 and 268.48 for guidance in meeting treatment standards.

LQG AND SQG MANAGEMENT STANDARDS: USE OF MANIFESTS

General Requirements

A LQG or SQG must prepare a manifest form each time he transports, or offers for transport, hazardous oil and gas waste to an authorized facility (for authorized facilities, see "Disposition"). The use of a manifest form ***is not required*** under certain conditions (see "When is a Manifest Form Not Required?").

The LQG or SQG must specify on the manifest one authorized facility to handle the hazardous oil and gas waste described on the manifest (the "primary designated facility").

The LQG or SQG may also specify on the manifest one alternate authorized facility to handle the hazardous oil and gas waste (the "alternate designated facility") in the event an emergency prevents delivery of the hazardous oil and gas waste to the primary designated facility.

A situation may occur where the transporter is unable to deliver the hazardous oil and gas waste to the primary designated facility or the alternate designated facility. Chapter 8 discusses the transporter requirements of Rule 98 and the role the generator must take in ensuring proper transportation of his hazardous waste.

What Manifest Form Must You Use?

If the waste was generated in Texas and is being transferred to an authorized facility located within Texas, the generator must use the TCEQ Uniform Hazardous Waste Manifest ("TCEQ manifest"). An example of the TCEQ manifest is provided in Appendix I.

If the authorized facility is located outside Texas, but within the U.S. (in a "consignment state"), the generator must use the manifest specified by the consignment state. If the consignment state does not specify a particular manifest form for use, then the generator must use the TCEQ manifest.

In certain instances, you may generate a hazardous oil and gas waste in a state of the U.S. other than Texas. In those instances, the generator must use the TCEQ manifest if transporting the waste to an authorized facility located within Texas.

When is a Manifest Form Not Required?

CESQGs are not required to use the manifest.

An SQG is not required to prepare a manifest form if his hazardous oil and gas waste is reclaimed under a contractual agreement, or "hazardous waste reclamation agreement" (also see “SQG Exception from Manifest Requirements” in Chapter 8). The hazardous waste reclamation agreement must provide that:

- the type of hazardous oil and gas waste and frequency of shipments are specified; and

- the vehicle used to transport the hazardous oil and gas waste to the hazardous waste reclamation facility and to deliver regenerated material back to the generator is owned and operated by the hazardous waste reclamation facility.

Also, the SQG must maintain a copy of the hazardous waste reclamation agreement in his files for a period of at least three years after termination or expiration of the reclamation agreement.

Finally, the SQG must comply with the provisions of 40 CFR §268.7(a)(10) (relating to land ban wastes subject to tolling agreements) if the waste is determined to be prohibited from land disposal under subsection (e)(2) of Rule 98 (relating to land ban wastes). See "SQG Manifest Exclusion and the LDR for more information.

Use of the Manifest

Instructions for completing the TCEQ hazardous waste manifest are provided in Appendix I.

Shipments Within Texas

The generator must ensure that the manifest consists of at least the number of copies that will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and one additional copy to be returned to the generator by the owner or operator of the designated facility to which the waste was delivered. For example, if the generator is sending waste to a facility and one transporter makes a direct delivery, four copies would be required.

This provision and the following required procedure ensure that the generator documents the proper delivery of his hazardous oil and gas waste to the authorized facility.

The generator must:

- sign the manifest certification by hand;
- obtain the handwritten signature of the initial transporter and date of acceptance of the shipment by the initial transporter on the manifest;
- retain one copy of the manifest signed by the initial transporter until the copy signed by the operator of the designated facility is received;
- give the transporter the remaining copies of the manifest; and
- obtain one copy of the manifest, signed by the owner or operator of the designated facility that received the hazardous oil and gas waste, and retain that copy for three years from the date the hazardous oil and gas waste was accepted for shipment by the initial transporter.

Shipments Within the United States Solely by Water (Bulk Shipments Only)

The generator must send three copies of the manifest, dated and signed in accordance with the provisions applicable to shipments within Texas (see above) to either:

- the owner or operator of the designated facility; or
- if exported by water, the last water transporter expected to handle the hazardous oil and gas waste in the United States. Copies of the manifest are not required for each transporter.

Rail Shipments Within the United States

For rail shipments that originate at the generation site, the generator must send at least three copies of the manifest, dated and signed in accordance with the provisions applicable to shipments within Texas, to:

- the next non-rail transporter, if any;
- the designated facility, if transported solely by rail; or
- if exported by rail, the last rail transporter expected to handle the hazardous oil and gas waste in the United States.

Shipments to a Designated Facility Located Outside Texas

If a shipment is made to a designated facility in an authorized state that has not yet obtained authorization from the EPA to regulate that particular waste as hazardous, the generator must determine that the owner or operator of the designated facility agrees to sign and return the manifest to the generator and that any out-of-state transporter agrees to comply with Rule 98 requirements applicable to transporters).

LQG AND SQG MANAGEMENT STANDARDS: PRE-TRANSPORTATION REQUIREMENTS; PACKAGING, LABELING, MARKING AND PLACARDING

Packaging

Before transporting hazardous oil and gas waste or offering hazardous oil and gas waste for transportation off-site, an LQG or SQG must package the hazardous oil and gas waste in accordance with the applicable DOT packaging regulations set out in 49 CFR Parts 173, 178, and 179.

Labeling

Before transporting hazardous oil and gas waste or offering hazardous oil and gas waste for transportation off-site, LQGs and SQGs must label each package that

contains hazardous oil and gas waste in accordance with the applicable DOT regulations set out in 49 CFR Part 172.

Marking

Before transporting hazardous oil and gas waste or offering hazardous oil and gas waste for transportation off-site, LQGs and SQGs must mark each package that contains hazardous oil and gas waste in accordance with the applicable DOT regulations set out in 49 CFR Part 172.

Non-bulk (110 gallons or less as specified in 40 CFR §262.32(b)), must be marked with the following words and information. Such words and information must be displayed in accordance with the applicable requirements of 49 CFR §172.304. The generator must include his name and address and the manifest document number in the appropriate space:

> **HAZARDOUS WASTE-Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.**
>
> **Generator's Name and Address:**_____
> **Manifest Document Number:**_____

Placarding

Before transporting hazardous oil and gas waste or offering hazardous oil and gas waste for transportation off-site, LQGs and SQGs must placard the vehicle or vehicles used to transport such hazardous oil and gas waste, or offer to the initial transporter the appropriate placards. Appropriate placards shall be determined according to DOT regulations set out in 49 CFR Part 172, Subpart F.

LQG AND SQG MANAGEMENT STANDARDS: RECORDKEEPING AND REPORTING

Recordkeeping

Rule 98, subsection(u), establishes specific recordkeeping requirements. The following paragraphs provide an overview of these recordkeeping requirements.

Waste Determination: Each LQG and SQG must keep records of any and all test results, waste analyses, or other determinations made in accordance with the hazardous waste determination requirements of Rule 98, subsection(e), for at least three years from the date that the waste was last sent to an authorized facility (also see "Hazardous Waste Determination" in Chapter 2).

Reports: LQGs and SQGs must maintain for at least three years records of annual reports, exception reports, and inspection reports.

Additional Recordkeeping for LQGs and SQGs: LQGs and SQGs must also maintain for at least three years records of compliance with applicable Rule 98 requirements, such as Preparedness and Prevention Plans, Contingency Plans and Emergency Procedures, Personnel Training, Container and Tank Inspections, and Manifests (including land disposal notification and certification).

Extension of Recordkeeping Period: The three-year period for recordkeeping is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or upon request of the RRC.

Reporting

Annual Reports: Any generator who is classified as an LQG or SQG during any calendar month of a calendar year must prepare and submit a single copy of an annual report to the RRC on Railroad Commission Form H-21. The required H-21 form with instructions will be mailed to each registered site contact person. Otherwise, the form and instructions will be available at RRC district offices and at RRC headquarters in Austin. *Do not send biennial reports to the U.S. EPA.*

Remember, CESQGs are not required to submit an annual report. Therefore, a generator who has been classified and reported as a LQG or SQG in previous years is not required to submit a report for a subsequent year in which the site remained CESQG for all months of the year.

The annual report must be filed on or before the first day of March of the following calendar year and must be accompanied by the fee assessed under the provisions of Rule 98, subsection (z), (discussed under "Fees" in Chapter7).

The annual report must contain a certification signed by the generator. The annual report must cover activities occurring at the generation site during the month(s) of the reporting year that the site was classified as a LQG or SQG and will include the following information as required on the annual report form:

- the name of the generator followed by the generator's P-5 operator number in parentheses, the EPA ID number for the generation site, and the address of the generation site or other site-identifying information (such as the lease number, unit number, or T-4 number (in the case of pipelines);

- the calendar year covered by the report;

- the name, EPA ID number, if any, and address for each authorized facility within the United States to which hazardous oil and gas waste was shipped during the year;

- the name and EPA ID number of each transporter used during the year for shipments to an authorized facility within the United States;

- a description, EPA hazardous waste number (from 40 CFR Part 261, Subpart C or D), United States DOT hazard class, and quantity of each hazardous oil and gas waste shipped to an authorized facility within the

United States. This information must be listed by the EPA ID number of each facility to which hazardous oil and gas waste was shipped. If the waste was shipped to an authorized facility that does not have an EPA ID number, the type of facility (reclamation or recycling) must be designated on the report;

Inspection Reports: A copy of each inspection report (also see "Standards for Use of Tank Systems, Inspections") required by Rule 98, subsection (t)(4), must be retained by the generator for a period of at least three years from the due date of the report.

Extension: The periods of record retention specified above are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or upon request by the RRC.

Exception Reports

LQGs: An LQG who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days from the date the hazardous oil and gas waste was accepted by the initial transporter for shipment must contact the transporter and, if necessary, the owner or operator of the designated facility to determine the status of the hazardous oil and gas waste shipment.

An LQG must submit an exception report to the RRC if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days from the date the hazardous oil and gas waste was accepted by the initial transporter for shipment. The exception report must include:

- a legible copy of the manifest for that shipment of hazardous oil and gas waste for which the generator does not have confirmation of delivery; and

- a letter signed by the generator explaining the efforts taken to locate the hazardous oil and gas waste and the results of those efforts.

SQGs: A SQG who does not receive confirmation of delivery of hazardous oil and gas waste by receipt of a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days from the date the hazardous oil and gas waste was accepted by the initial transporter for shipment, must submit to the RRC an exception report. The exception report must include:

- a legible copy of the manifest for which the generator does not have confirmation of delivery; and

- a notation, either typed or handwritten, indicating that the generator has not received confirmation of delivery of the shipment to the designated facility.

Exception Reports for Interstate Shipments: In the case of interstate shipments of hazardous oil and gas waste for which a manifest has not been returned within 45 days of acceptance of the hazardous oil and gas waste for shipment by the initial transporter, an LQG or SQG shall notify the appropriate regulatory agency of the state in which the designated facility is located, and the appropriate regulatory agency

of each state in which the shipment may have been delivered, that the manifest has not been received. If a state required to be notified has not received interim or final authorization pursuant to RCRA, the LQG or SQG shall notify the administrator that the manifest has not been returned.

Additional Reporting

The RRC may require any generator of hazardous oil and gas waste to furnish additional reports concerning the quantities and disposition of hazardous oil and gas waste generated.