

**UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION**

NTL No. 2009-G35

Effective Date: December 1, 2009
Expiration Date: November 30, 2014

NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL, GAS, AND SULPHUR
LEASES, OUTER CONTINENTAL SHELF, GULF OF MEXICO OCS REGION

Sub-Seabed Disposal and Offshore Storage of Solid Wastes

This Notice to Lessees and Operators and (NTL) supersedes NTL No. 99-G22, effective September 24, 1999, on this subject. It updates regulatory citations, makes minor technical amendments, and includes a guidance document statement.

Background

This NTL provides standardized guidelines and instructions for the sub-seabed disposal and offshore storage of solid wastes generated from oil and gas development on the OCS in the Gulf of Mexico. This NTL applies only to such solid wastes that are classified as exempt exploration and production (E&P) wastes under the Resource Conservation and Recovery Act (RCRA) (see 40 CFR 261.4(b)(5)). These exempt E&P wastes include drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of oil, natural gas, or sulphur on the OCS.

Pursuant to 30 CFR 250.300(b)(2), you must obtain approval from the appropriate Minerals Management Service (MMS) Gulf of Mexico OCS Region (GOMR) District Manager of the methods you will use to dispose of drill cuttings, sand, and other well solids. Under this authority, the MMS GOMR requires that you obtain approval for the sub-seabed disposal of all E&P wastes, and for the offshore storage of E&P wastes that contain naturally occurring radioactive materials (NORM) above background levels. You must obtain these approvals before you may proceed with such disposal or storage operations.

This NTL provides guidance and instructions on the disposal of these E&P wastes, worker safety when handling these wastes, and the contents of applications to dispose of or store these wastes. The procedures regarding waste disposal outlined in this NTL do not supersede, but are supplemental to, those procedures for decommissioning wells as specified in Subpart Q of 30 CFR 250.

Guidelines

I. Types of Wastes

- A. All solid wastes (including slurries) covered by this NTL must:
 - 1. Be generated from OCS oil, natural gas, or sulphur development and production activities; and
 - 2. Be exempt E&P wastes under the RCRA.

- B. The solid wastes covered by this NTL include:
 - 1. Drilling fluids, produced waters, and other E&P wastes; and
 - 2. Any wastes containing NORM above background levels.

II. Disposal Criteria

- A. Encapsulation Criteria
 - 1. As a general rule, the MMS GOMR will not approve applications to use a well as a disposal location if:
 - a. The top of the waste would be less than 3,000 feet below the seafloor, and a fault intersects the wellbore within this zone;
 - b. A fault that extends to the seafloor intersects the wellbore; or
 - c. The well is in an area of sediment instability such as mudflows, slumps, and slides.
 - 2. Squeeze all perforations open to the producing formation(s) with cement.
 - 3. Pressure test all plugs.
 - 4. Ensure that the fluid in the casing is of sufficient density to exert a hydrostatic pressure that exceeds the greatest formation pressure in the intervals between the plugs.
 - 5. Place the top of the wastes at least 1,000 feet below the mudline.
 - 6. Isolate encapsulated wastes from any open annulus by placing a 200-foot-long cement plug between the waste and the open annulus.
 - 7. If the top of the waste is less than 3,000 feet below the mudline, fill the casing with cement at all depths above 3,000 feet.
 - 8. Place a cast-iron bridge plug and a 200-foot-long cement plug containing a permanent dye solution at the top of the wastes.

B. Injection Criteria

1. The disposal reservoir is depleted of commercial hydrocarbons.
2. The disposal reservoir/formation is isolated by shale barriers above and below does not contain any producing wells.
3. The disposal reservoir/formation is below the deepest underground source of drinking water.
4. The wellbore, tubular goods, and control devices demonstrate mechanical integrity (no tubing/casing communication).
5. Monitor surface tubing and the tubing/casing annulus pressure continuously with a two-pen chart recorder during injection.
6. Run a base-line radioactive tracer log prior to injection and a follow-up log after injection to verify proper placement of the slurry.
7. If the well is to be used for future injections
 - a. Set a retrievable plug;
 - b. Mark the well, clearly indicating it is being used for the injection of wastes and whether the wastes contain NORM; and
 - c. Monitor the tubing and casing pressures daily on manned structures and weekly on unmanned structures and check the mechanical integrity (pressure sealing properties) at least annually.

III. Worker Safety Guidelines

- A. Develop and follow procedures to protect workers involved in disposal operations.
- B. Ensure that any employer of persons engaged in activities involving wastes containing NORM above background levels (including transportation, storage, sampling, mixing, and disposal operations) complies with the provisions of 29 CFR 1910.96 (or its successor).
- C. Ensure that all onsite contractors directly involved with the handling or disposal of NORM wastes have been trained in the handling of NORM and are licensed under a State program.

IV. Application Information Guidelines

- A. Disposal Application Information. When you propose to dispose of wastes, include the following information in your application:
 1. A description of the material to be disposed of including:
 - a. Whether the waste is to be formed into a slurry and a description of the medium to be used to form the slurry (e.g., barite/bentonite, saltwater with HEC viscosifier, cement).

- b. The number of containers to be disposed of, a description of the contents of each container (e.g., a half-filled container of oily produced sand), and a description of the container itself (e.g., a 55-gallon drum, a barrel, PVC pipe).
- c. A description of any miscellaneous RCRA-exempt material that you intend to dispose of.
- d. The OCS area(s) and block number(s) where the material originated.
- e. If the waste contains NORM above background levels
 - i. The location(s), if any, where the material had been stored; and
 - ii. The radiation exposure rate for each container and for background conditions in microrems/hour.
- f. A description or listing of any unusual contaminants, or of any contaminants that are present in unusually high levels in the wastes to be disposed of.
- g. Any documentation submitted to a State agency prior to the disposal event.
2. The OCS lease number, area, block, and well number of the disposal well.
3. The distance in feet from the two nearest lease lines, and the latitude and longitude of the disposal well.
4. The disposal technique (i.e., encapsulation, injection) you will use.
5. A description of the procedures for encapsulation or injection (fracture procedure, plugs to be set, etc.).
6. Schematic drawings showing the wellbore prior to and after encapsulation or injection.
7. An assurance that you will adhere to the worker safety guidelines outlined in Section III of this NTL.
8. If any or all of the waste is to be *encased* in tubulars/casing
 - a. The size, grade, and weight per foot of the tubulars/casing.
 - b. The sub-surface depth of both the top and bottom of the tubulars/casing.
 - c. Whether the tubulars/casing will be free in the hole or will be secured by cement, a bridge plug, or a cement retainer.
9. If any or all of the waste is to be *injected*
 - a. A description of any dilution procedures you will use prior to injection.
 - b. A structure map of the formation that is to receive the injected slurry.
 - c. A 5-inch open-hole log showing the injection zone and the shale above and below this zone. The log should contain spontaneous potential or gamma ray and resistivity curves.
 - d. The maximum anticipated surface and reservoir injection pressures.
 - e. A model simulation of the fracture that will be produced during the injection procedure (i.e., length, height, and width of fracture).
 - f. The predicted maximum distance from the wellbore to where the injected slurry will be placed.
 - g. The distance from the nearest fault to the injection zone.

B. NORM Storage Application Information. When you propose to temporarily store wastes containing NORM above background levels at an offshore location, include the following information in your application:

1. The lease number, area, block, and platform where storage is requested.
2. Whether the platform proposed for storage is a manned or an unmanned platform.
3. The number of containers, a description of the wastes within the containers, and a description of the containers.
4. The radiation exposure rate (microrems/hr) for each container and for background conditions.
5. The length of time you request for storage (not to exceed one year).
6. Your plans for securing the containers to the platform to avoid loss during severe storms or hurricanes.
7. The height above sea level of the deck(s) on which the storage is to take place.
8. The lease number(s), area(s), and block(s) of where the wastes originated.

Note: Prior to placement, provide similar information if you propose to store additional containers at an approved location.

V. Number of Copies and Submission Address

Submit three (3) copies of your application to dispose of wastes or your application to temporarily store NORM wastes at an offshore location to:

Minerals Management Service, GOMR
Regional Supervisor, Field Operations
Plans Section (MS 5220)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123

Guidance Document Statement

The MMS issues NTL's as guidance documents in accordance with 30 CFR 250.103 to clarify, supplement, and provide more detail about certain MMS regulatory requirements and to outline the information you provide in your various submittals. Under that authority, this NTL sets forth a policy on and an interpretation of a regulatory requirement that provides a clear and consistent approach to complying with that requirement. However, if you wish to use an alternate approach for compliance, you may do so, after you receive approval from the appropriate MMS office under 30 CFR 250.141.

Paperwork Reduction Act of 1995 Statement

The information collection referred to in this NTL is intended to provide description, clarification, guidance, and interpretation of the requirements under 30 CFR 250, Subparts C, D, and Q. The Office of Management and Budget (OMB) has approved the information collection

requirements for these regulations and assigned OMB Control Nos. 1010-0057, 1010-1041, and 1010-0142, respectively. This NTL does not impose any additional information collection requirements subject to the Paperwork Reduction Act of 1995.

Contact

If you have any questions regarding this NTL, please contact the MMS GOMR Plans Section by telephone at (504) 736-2581 or by e-mail at elizabeth.peuler@mms.gov.

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Regional Director