

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

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

NTL 97-09

Date: April 7, 1997

**HYDROGEN SULFIDE (H<sub>2</sub>S) REQUIREMENTS**

The purpose of this notice is to provide clarification, guidance and information regarding the interpretation of certain provisions contained within the revised Minerals Management Service (MMS) H<sub>2</sub>S Requirements for Operations on the OCS, Regulation 30 CFR 250.67. In addition, included in this notice are general conditions that are areas of concern involving the submittal of an H<sub>2</sub>S Contingency Plan and that must be satisfied to obtain District Supervisor approval.

**Implementation of the Regulation**

This regulation was published in the Federal Register, Volume 62, No. 17, Monday, January 27, 1997, with an effective date of March 28, 1997.

Because of safety implications, implementation should be timely. You need to communicate with the MMS District Supervisor in writing, within 30 days after the effective date of Notice to Lessees and Operators (NTL), on how you will be implementing this regulation. Presently, your letter may be considered an addendum to your current H<sub>2</sub>S Contingency Plan, but be advised, a new H<sub>2</sub>S Contingency Plan, directed specifically toward facilities processing any product containing a concentration of H<sub>2</sub>S that could result in an atmospheric concentration of 20 ppm release, will be required.

If you need more time to purchase, modify, or install equipment, you need to submit a request to extend the time for implementation of the proposed plan to the District Supervisor within 30 days after the effective date of this NTL, and provide documentation supporting your request for a time extension for compliance with this regulation.

The following guidance relating to the implementation of certain provisions of this regulation will apply in the Gulf of Mexico (GOM) OCS Region:

**Sensor location for Production Operations, 30 CFR 250.67(j)(5)**

The specifications in 250.67(j)(5)(i), (iii), and (iv) require one sensor per 400 square feet of deck area and a sensor within 10 feet of equipment where atmospheric concentrations of H<sub>2</sub>S could reach 20 ppm.

The operator may conduct a design analysis including dispersion modeling to determine a more effective or a more efficient placement of sensors. The MMS will accept alternate placement of sensors if the analysis shows that the alternate placement provides levels of safety equal or superior to placement based on the specific requirements in the regulation.

**Calibration of H<sub>2</sub>S Sensors, 30 CFR 250.67(j)(6)(ii)**

This section specifies that a sensor tolerance of 2 ppm or 10 percent during a functional test is acceptable.

Alternatively, you may use sensors with a higher test tolerance, provided you adjust the activation point so that the sensor alarm will activate at no higher than 22 ppm H<sub>2</sub>S atmospheric concentrations. For example, if the tolerance of the instrument is 25 percent (5 ppm for a reading of 20 ppm), then you may set the alarm to activate at 17 ppm. With the possible 5 ppm error, the alarm could activate between 12 and 22 ppm. The level of safety for the worst case of 22 ppm would then be the same as the level of safety specified in the rule.

**Respirator Breathing Time, 30 CFR 250.67(j)(13)**

This section requires that you provide all personnel, including contractors and visitors on the facility, with immediate access to self-contained pressure-demand-type respirators with hoseline capability and breathing time of at least 15 minutes.

Approval of any self-contained pressure-demand-type respirators with hoseline capability with breathing time less than 15 minutes will be limited to cases where you have shown that the overall protection will be equivalent to that provided by the requirements in this regulation. You must address the following in your request for approval:

1. The number of excess breathing devices that are on the platform (i.e., number of devices in excess of the number of personnel).
2. Quick access to stationary breathing supply.
3. Anticipated egress time for all personnel who might end up with less than a 15-minute supply.
4. Effective duration of respirator air supply in a panic situation.

**Approving of Alternative Measures for Protection Against Sulfur Dioxide(SO<sub>2</sub>), 30 CFR**

## **250.67(j)(12)**

Section 250.67(j)(11) lists actions that you must take to protect against SO<sub>2</sub> if you burn gas containing H<sub>2</sub>S.

Section 250.67(j)(12) allows you to follow alternative measures instead of those in paragraph (j)(11) of this section, if you propose and the District Supervisor (authority delegated from the Regional Supervisor level) approves the alternative measures.

Additionally, you must not use gas containing more than 50 ppm H<sub>2</sub>S for fuel gas without the prior approval of the District Supervisor.

### **Requirements for Classifying an Area for The Presence of H<sub>2</sub>S, 30 CFR 250.67(c)**

The GOM OCS Region will continue to require a request for the classification of an area for the presence of H<sub>2</sub>S to be submitted in the Plan of Exploration (POE) and Development Operations Coordination Document (DOCD), and not in the Application for Permit to Drill.

### **Requirements for Flaring and Venting of Gas Containing H<sub>2</sub>S**

The requirements for flaring, venting and reporting of flared gas containing H<sub>2</sub>S are now covered in 30 CFR 250.175(f).

In addition, District Supervisors may require:

#### 1. Well Tests, Extended Flaring, or Burning of Acid Gas

a. Dispersion models of the toxic effects on downwind constituents for all well tests whose product containing H<sub>2</sub>S concentrations exceeding 0.05 percent by volume (500ppm). These models are to include contours of H<sub>2</sub>S concentrations and SO<sub>2</sub> concentrations as determined by the District Supervisor. In addition, these models should depict the relationship of these concentrations to known structures, shipping lanes, and proximity to shore.

b. The estimated burner efficiency ratings for the flare system. Estimated maximum flow rate. H<sub>2</sub>S concentration at the maximum rate of the well stream, H<sub>2</sub>S concentration after burn, and SO<sub>2</sub> concentration after burn.

#### 2. Nearby Manned Facilities

As part of the emitting facility's H<sub>2</sub>S Plan, the operator must address all manned facilities that may be affected by a major release of product containing H<sub>2</sub>S or SO<sub>2</sub>, and provide for the same measure of personal protection as the emitting facility for the appropriate concentrations. This includes H<sub>2</sub>S and SO<sub>2</sub> detectors connected to audible and visual alarms, breathing equipment,

training and evacuation plan. A dispersion model depicting the worst case release shall validate whether a manned facility will be affected.

## **REQUIREMENTS FOR APPROVAL OF AN H<sub>2</sub>S CONTINGENCY PLAN**

An H<sub>2</sub>S Contingency Plan must contain the information required by 30 CFR 250.67(f).

District Supervisors in the GOM OCS Region prefer that:

1. The plan is segmented as follows:
  - a. General information relative and common to all types of operations.
  - b. Drilling Operations
  - c. Workover Operations
  - d. Production Operations
  - e. Pipelines
  - f. Simultaneous Operations
2. Changes to a plan be reported to the appropriate district office immediately.
3. Any detection of H<sub>2</sub>S gas at concentrations of 20 ppm or greater or SO<sub>2</sub> gas at concentrations at 5 ppm or greater on manned or unmanned platforms necessitates that all known H<sub>2</sub>S sources (wells) at the facility be shut in. District Supervisor approval is required to resume operations.

### **SIGNS, VISUAL ALERT DEVICES, AND AUDIBLE WARNING DEVICES, 30 CFR 250.67(i)**

A visual device must be visible from the helideck and all boat landings. The audible warning alert must be recognizable at all boat landings and the helideck.

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