Adoption of Amendments to the Regulations

Accordingly, 26 CFR part 1 is amended as follows:

PART 1—INCOME TAXES

Paragraph 1. The authority citation for part 1 is amended by adding an entry in numerical order to read in part as follows:

Authority: 26 U.S.C. 7805 * * *

Section 1.42–16T also issued under 26 U.S.C. 42(n); * * *

Par. 2. Section 1.42–16T is added to read as follows:

§ 1.42–16T Eligible basis reduced by federal grants (temporary).

(a) *In general.* If, during any taxable year of the compliance period (described in section 42(i)(1)), a grant is made with respect to any building or the operation thereof and any portion of the grant is funded with federal funds (whether or not includible in gross income), the eligible basis of the building for the taxable year and all succeeding taxable years is reduced by the portion of the grant that is so funded.

(b) *Grants do not include certain rental assistance payments.* A federal rental assistance payment made to a building owner on behalf or in respect of a tenant is not a grant made with respect to a building or its operation if the payment is made pursuant to—

(1) Section 8 of the United States Housing Act of 1937;

(2) A qualifying program of rental assistance administered under section 9 of the United States Housing Act of 1937; or

(3) A program or method of rental assistance as the Secretary may designate through the Federal Register or in the Internal Revenue Bulletin (see § 601.601(d)(2) of this chapter).

(c) *Qualifying rental assistance program.* For purposes of paragraph (b)(2) of this section, payments are made pursuant to a qualifying rental assistance program administered under section 9 of the United State Housing Act of 1937 to the extent that the payments—

(1) Are made to a building owner pursuant to a contract with a public housing authority with respect to units the owner has agreed to maintain as public housing units (PH-units) in the building;

(2) Are made with respect to units occupied by public housing tenants, provided that, for this purpose, units may be considered occupied during periods of short duration not to exceed 60 days;

(3) Do not exceed the difference between the rents received from a building's PH-unit tenants and a pro rata portion of the building's actual operating costs that are reasonably allocable to the PH-units (based on square footage, number of bedrooms, or similar objective criteria), and provided that, for this purpose, operating costs do not include any development costs of a building (including developer's fees) or the principal or interest of any debt incurred with respect to any part of the building.

(d) *Effective date.* This section is effective January 27, 1997.

Margaret Milner Richardson,

Commissioner of Internal Revenue.

Approved: January 8, 1997.

Donald C. Lubick,

Acting Assistant Secretary of the Treasury.

[FR Doc. 97–1790 Filed 1–24–97; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Minerals Management Service

30 CFR Part 250

RIN 1010–AB50

Hydrogen Sulfide Requirements for Operations in the Outer Continental Shelf

AGENCY: Minerals Management Service (MMS), Interior.

ACTION: Final rule.

SUMMARY: This rule revises requirements for preventing hydrogen sulfide (H_2S) releases, detecting and monitoring H_2S and sulphur dioxide (SO_2), protecting personnel, providing visual and audible warnings, and training personnel. The rule also establishes requirements for H_2S flaring. The revisions are necessary to keep up with current practices and technologies, and to enhance personnel safety and environmental protection.

EFFECTIVE DATE: March 28, 1997.

FOR FURTHER INFORMATION CONTACT: E.P. Danenberger at (703) 787–1598 or John Mirabella at (703) 787–1600.

SUPPLEMENTARY INFORMATION: On May 11, 1995, we published in the Federal Register (60 FR 25178) a reproposed rule, which incorporated comments to a previous proposed rule which we published on August 15, 1990 (55 FR 33326). The reproposed rule incorporated the latest editions of two documents:

• American National Standard [illegible]

• The National Association of Corrosion Engineers' (NACE) Standard (MR–01–92), Recommended Practice (RP), Sulfide Stress Cracking Resistant Metallic Materials for Oil Field Equipment.

We received a total of three responses: one from the National Institute of Safety and Health (NIOSH) and two from industry. We have addressed their comments below and have rewritten the rule in a clearer and more user-oriented style. We have subdivided some sections. As a result, some sections have been renumbered.

Discussion of Comments

Comment: NIOSH referred to recommendations it had given to the Occupational Safety and Health Administration with respect to "bearded workers" and "wearing contact lenses," and recommended that the pressure-demand-type respirator required should be certified by NIOSH.

Response: We have incorporated by reference the ANSI Z88.2 standard that addresses the topics of "bearded workers" and "wearing of contact lenses." We believe our rule is consistent with regulations promulgated by other Federal agencies but do not agree that certification by other agencies is needed.

Comment: There is a critical need for a system that would continuously monitor and detect any emissions the instant they occur at wellheads and manifolds.

Response: We consider the sensors that detect the presence of H_2S [illegible] be part of a continuous monitoring system. Sensor locations take into consideration design factors such as type of decking, location of fire walls, ventilation, or area confinement. Alternative monitoring systems may be desirable for production systems that have components which are prone to erosion and leaks. MMS encourages lessees to use new or alternative monitoring systems that enhance leak detection capabilities.

Comment: Delete the requirements concerning SO_2-detection and monitoring equipment. The commenter stated that a properly designed flare system, coupled with general requirements allowing operators to establish personnel exposure limits, should be adequate for personnel protection on a facility.

Response: We agree that operators should be permitted to propose alternatives to the use of portable of fixed SO_2 monitors to monitor air quality while burning gas containing H_2S. We added a provision to allow the District Supervisor to [illegible] and

MMS needs the information to ascertain the condition of a drilling site and to determine if lessees are properly providing for the safety of operations and protection of human life or health and the environment. We use the information to avoid and eliminate hazards inherent in drilling operations.

The respondents are approximately 26 Federal oil and gas lessees. The frequency of response is "on occasion."

In § 250.67, we estimate an annual reporting burden of 849 hours and an annual recordkeeping burden of 16,189 hours. In § 250.175(f), we estimate an annual reporting burden of 432 hours. The burden estimates include the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden or any other aspect of the collections of information contained in § 250.67 and § 250.175(f), including suggestions for reducing the burdens, to the Office of Information and Regulatory Affairs, Office of Management and Budget, Attn: Desk Officer for the Department of the Interior, Room 10102, 725 17th Street, NW., Washington, DC 20503 (OMB control number 1010–0053 or 1010–0041). Send a copy of your comments to the Information Collection Clearance Officer, Minerals Management Service, Mail Stop 2053, 381 Elden Street, Herndon, Virginia 20170–4817.

Takings Implication Assessment

The DOI determined that this final rule does not represent a governmental action capable of interference with constitutionally protected rights. Thus, DOI does not need to prepare a Takings Implication Assessment pursuant to E.O. 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

E.O. 12988

The DOI certified to OMB that the rule meets the applicable reform standards provided in Sections 3(a) and 3(b)(2) of E.O. 12988.

Unfunded Mandates Reform Act of 1995

The DOI has determined and certifies according to the Unfunded Mandates Reform Act, 2 U.S.C. 1502 *et seq.*, that this rule will not impose a cost of $100 million or more in any given year on State, local, and tribal governments, or the private sector.

National Environmental Policy Act

The DOI determined that this action does not constitute a major Federal action significantly affecting the quality of the human environment; therefore, an Environmental Impact Statement is not required.

List of Subjects in 30 CFR Part 250

Continental shelf, Environmental impact statements, Environmental protection, Government contracts, Incorporation by reference, Investigations, Mineral royalties, Oil and gas development and production, Oil and gas exploration, Oil and gas reserves, Penalties, Pipelines, Public lands—minerals resources, Public lands—rights-of-way, Reporting and recordkeeping requirements, Sulphur development and production, Sulphur exploration, Surety bonds.

Dated: January 9, 1997.

Sylvia V. Baca,

Deputy Assistant Secretary, Land and Minerals Management.

For the reasons stated in the preamble, Minerals Management Service (MMS) amends 30 CFR part 250 as follows:

PART 250—OIL AND GAS AND SULPHUR OPERATIONS IN THE OUTER CONTINENTAL SHELF

1. The authority citation for part 250 continues to read as follows:

Authority: 43 U.S.C. 1334.

2. In § 250.1, paragraphs (c)(7) and (g)(1) are revised to read as follows:

§ 250.1 Documents incorporated by reference.

* * * * *

(c) * * *

(7) ANSI Z88.2–1992, American National Standard for Respiratory Protection, Incorporated by Reference at: §§ 250.67(g)(4)(iv) and (j)(13)(ii).

* * * * *

(g) * * *

(1) NACE Standard MR.01–75–96, Sulfide Stress Cracking Resistant Metallic Materials for Oil Field Equipment, January 1996, Incorporated by Reference at: § 250.67(p)(2).

* * * * *

3. In § 250.2, the definitions for *Zones known to contain H_2S*, *Zones where the absence of H_2S* has been confirmed, and *Zones where the presence of H_2S* is unknown are removed.

4. Section 250.67 is revised to read as follows:

§ 250.67 Hydrogen sulfide

(a) *What precautions must I take when operating in an H_2S area?* You must [illegible] and measures to protect [illegible] from the toxic effects of H_2S and to mitigate damage to property and the environment caused by H_2S. You must follow the requirements of this section when conducting drilling, well-completion/well-workover, and production operations in zones with H_2S present and when conducting operations in zones where the presence of H_2S is unknown. You do not need to follow these requirements when operating in zones where the absence of H_2S has been confirmed; and

(2) Follow your approved contingency plan.

(b) *Definitions.* Terms used in this section have the following meanings:

Facility means a vessel, a structure, or an artificial island used for drilling, well-completion, well-workover, and/or production operations.

H_2S absent means:

(1) Drilling, logging, coring, testing, or producing operations have confirmed the absence of H_2S in concentrations that could potentially result in atmospheric concentrations of 20 ppm or more of H_2S; or

(2) Drilling in the surrounding areas and correlation of geological and seismic data with equivalent stratigraphic units have confirmed an absence of H_2S throughout the area to be drilled.

H_2S present means that drilling, logging, coring, testing, or producing operations have confirmed the presence of H_2S in concentrations and volumes that could potentially result in atmospheric concentrations of 20 ppm or more of H_2S.

H_2S unknown means the designation of a zone or geologic formation where neither the presence nor absence of H_2S has been confirmed.

Well-control fluid means drilling mud and completion or workover fluid as appropriate to the particular operation being conducted.

(c) *Classifying an area for the presence of H_2S.* You must:

(1) Request and obtain an approved classification for the area from the Regional Supervisor before you begin operations. Classifications are "H_2S absent," H_2S present," or "H_2S unknown";

(2) Submit your request with your application for permit to drill;

(3) Support your request with available information such as geologic and geophysical data and correlations, well logs, formation tests, cores and analysis of formation fluids; and

(4) Submit a request for reclassification of a zone when additional data indicate a different classification is needed.

(d) *What do I do if conditions change?* If you encounter H_2S that could

potentially result in atmospheric concentrations of 20 ppm or more in areas not previously classified as having H_2S present, you must immediately notify MMS and begin to follow requirements for areas with H_2S present.

(e) *What are the requirements for conducting simultaneous operations?* When conducting any combination of drilling, well-completion, well-workover, and production operations simultaneously, you must follow the requirements in the section applicable to each individual operation.

(f) *Requirements for submitting an H_2S Contingency Plan.* Before you begin operations, you must submit an H_2S Contingency Plan to the District Supervisor for approval. Do not begin operations before the District Supervisor approves your plan. You must keep a copy of the approved plan in the field, and you must follow the plan at all times. Your plan must include:

(1) Safety procedures and rules that you will follow concerning equipment, drills, and smoking;

(2) Training you provide for employees, contractors, and visitors;

(3) Job position and title of the person responsible for the overall safety of personnel;

(4) Other key positions, how these positions fit into your organization, and what the functions, duties, and responsibilities of those job positions are;

(5) Actions that you will take when the concentration of H_2S in the atmosphere reaches 20 ppm, who will be responsible for those actions, and a description of the audible and visual alarms to be activated;

(6) Briefing areas where personnel will assemble during an H_2S alert. You must have at least two briefing areas on each facility and use the briefing area that is upwind of the H_2S source at any given time;

(7) Criteria you will use to decide when to evacuate the facility and procedures you will use to safely evacuate all personnel from the facility by vessel, capsule, or lifeboat. If you use helicopters during H_2S alerts, describe the types of H_2S emergencies during which you consider the risk of helicopter activity to be acceptable and the precautions you will take during the flights;

(8) Procedures you will use to safely position all vessels attendant to the facility. Indicate where you will locate the vessels with respect to wind direction. Include the distance from the facility and what procedures you will [illegible]

(9) How you will provide protective-breathing equipment for all personnel, including contractors and visitors;

(10) The agencies and facilities you will notify in case of a release of H_2S (that constitutes an emergency), how you will notify them, and their telephone numbers. Include all facilities that might be exposed to atmospheric concentrations of 20 ppm or more of H_2S;

(11) The medical personnel and facilities you will use if needed, their addresses, and telephone numbers;

(12) H_2S detector locations in production facilities producing gas containing 20 ppm or more of H_2S. Include an "H_2S Detector Location Drawing" showing:

(i) All vessels, flare outlets, wellheads, and other equipment handling production containing H_2S;

(ii) Approximate maximum concentration of H_2S in the gas stream; and

(iii) Location of all H_2S sensors included in your contingency plan;

(13) Operational conditions when you expect to flare gas containing H_2S including the estimated maximum gas flow rate, H_2S concentration, and duration of flaring;

(14) Your assessment of the risks to personnel during flaring and what precautionary measures you will take;

(15) Primary and alternate methods to ignite the flare and procedures for sustaining ignition and monitoring the status of the flare (i.e., ignited or extinguished);

(16) Procedures to shut off the gas to the flare in the event the flare is extinguished;

(17) Portable or fixed sulphur dioxide (SO_2)-detection system(s) you will use to determine SO_2 concentration and exposure hazard when H_2S is burned;

(18) Increased monitoring and warning procedures you will take when the SO_2 concentration in the atmosphere reaches 2 ppm;

(19) Personnel protection measures or [illegible] when the SO_2 concentration in the atmosphere reaches 5 ppm;

(20) Engineering controls to protect personnel from SO_2; and

(21) Any special equipment, procedures, or precautions you will use if you conduct any combination of drilling, well-completion, well-workover, and production operations simultaneously.

(g) *Training program.*

(1) *When and how often do employees need to be trained?* All operators and contract personnel must complete an H_2S [illegible] the requirements of this section:

(i) Before beginning work at the facility; and

(ii) Each year, within 1 year after completion of the previous class.

(2) *What training documentation do I need?* For each individual working on the platform, either:

(i) You must have documentation of this training at the facility where the individual is employed; or

(ii) The employee must carry a training completion card.

(3) *What training do I need to give to visitors and employees previously trained on another facility?*

(i) Trained employees or contractors transferred from another facility must attend a supplemental briefing on your H_2S equipment and procedures before beginning duty at your facility;

(ii) Visitors who will remain on your facility more than 24 hours must receive the training required for employees by paragraph (g)(4) of this section; and

(iii) Visitors who will depart before spending 24 hours on the facility are exempt from the training required for employees, but they must, upon arrival, complete a briefing that includes:

(A) Information on the location and use of an assigned respirator; practice in donning and adjusting the assigned respirator; information on the safe briefing areas, alarm system, and hazards of H_2S and SO_2; and

(B) Instructions on their responsibilities in the event of an H_2S release.

(4) *What training must I provide to all other employees?* You must train all individuals on your facility on the:

(i) Hazards of H_2S and of SO_2 and the provisions for personnel safety contained in the H_2S Contingency Plan;

(ii) Proper use of safety equipment which the employee may be required to use;

(iii) Location of protective breathing equipment, H_2S detectors and alarms, ventilation equipment, briefing areas, warning systems, evacuation procedures, and the direction of prevailing winds;

(iv) Restrictions and corrective measures concerning beards, spectacles, and contact lenses in conformance with ANSI Z88.2;

(v) Basic first-aid procedures applicable to victims of H_2S exposure. During all drills and training sessions, you must address procedures for rescue and first aid for H_2S victims;

(vi) Location of:

(A) The first-aid kit on the facility;

(B) Resuscitators; and

(C) Litter or other device on the facility.

(vii) Meaning of all warning signals.

[illegible] *Do I need to* [illegible] *information?* You must [illegible]

post safety information on the facility and on vessels serving the facility (i.e., basic first-aid, escape routes, instructions for use of life boats, etc.).

(h) *Drills.* (1) *When and how often do I need to conduct drills on H_2S safety* discussions on the facility? You must:

(i) Conduct a drill for each person at the facility during normal duty hours at least once every 7-day period. The drills must consist of a dry-run performance of personnel activities related to assigned jobs.

(ii) At a safety meeting or other meetings of all personnel, discuss drill performance, new H_2S considerations at the facility, and other updated H_2S information at least monthly.

(2) *What documentation do I need?* You must keep records of attendance for:

(i) Drilling, well-completion, and well-workover operations at the facility until operations are completed; and

(ii) Production operations at the facility or at the nearest field office for 1 year.

(i) *Visual and audible warning systems*—(1) *How must I install wind direction equipment?* You must install wind-direction equipment in a location visible at all times to individuals on or in the immediate vicinity of the facility.

(2) *When do I need to display operational danger signs, display flags, or activate visual or audible alarms?*

(i) You must display warning signs at all times on facilities with wells capable of producing H_2S and on facilities that process gas containing H_2S in concentrations of 20 ppm or more.

(ii) In addition to the signs, you must activate audible alarms and display flags or activate flashing red lights when atmospheric concentration of H_2S reaches 20 ppm.

(3) *What are the requirements for signs?* Each sign must be a high-visibility yellow color with black lettering as follows:

[illegible]

12 inches	Danger. Poisonous Gas. Hydrogen Sulfide.
7 inches	Do not approach if red flag is flying.
(Use appropriate wording at right).	Do not approach if red lights are flashing.

(4) *May I use existing signs?* You may use existing signs containing the words "Danger-Hydrogen Sulfide-H_2S," provided the words "Poisonous Gas. Do Not Approach if Red Flag is Flying" or "Red Lights are Flashing" in lettering of a minimum of 7 inches in height are displayed on a sign immediately adjacent to the existing sign.

(5) *What are the requirements for flashing lights or flags?* You must activate a sufficient number of lights or hoist a sufficient number of flags to be visible to vessels and aircraft. Each light must be of sufficient intensity to be seen by approaching vessels or aircraft any time it is activated (day or night). Each flag must be red, rectangular, a minimum width of 3 feet, and a minimum height of 2 feet.

(6) *What is an audible warning system?* An audible warning system is a public address system or siren, horn, or other similar warning device with a unique sound used only for H_2S.

(7) *Are there any other requirements for visual or audible warning devices?* Yes, you must:

(i) Illuminate all signs and flags at night and under conditions of poor visibility; and

(ii) Use warning devices that are suitable for the electrical classification of the area.

(8) *What actions must I take when the alarms are activated?* When the warning devices are activated, the designated responsible persons must inform personnel of the level of danger and issue instructions on the initiation of appropriate protective measures.

(j) *H_2S-detection and H_2S monitoring equipment.*—(1) *What are the requirements for an H_2S detection system?* An H_2S detection system must:

(i) Be capable of sensing a minimum of 10 ppm of H_2S in the atmosphere; and

(ii) Activate audible and visual alarms when the concentration of H_2S in the atmosphere reaches 20 ppm.

(2) *Where must I have sensors for drilling, well-completion, and well-workover operations?* You must locate sensors at the:

(i) Bell nipple;

(ii) [illegible] receiver tank (possum belly);

[illegible]

(v) Well-control fluid pit area;

(vi) Driller's station;

(vii) Living quarters; and

(viii) All other areas where H_2S may accumulate.

(3) *Do I need mud sensors?* The District Supervisor may require mud sensors in the possum belly in cases where the ambient air sensors in the mud-return system do not consistently detect the presence of H_2S.

(4) *How often must I observe the sensors?* During drilling, well-completion and well-workover operations, you must continuously observe the H_2S levels indicated by the monitors in the work areas during the following operations:

(i) When you pull a wet string of drill pipe or workover string;

(ii) When circulating bottoms-up after a drilling break;

(iii) During cementing operations;

(iv) During logging operations; and

(v) When circulating to condition mud or other well-control fluid.

(5) *Where must I have sensors for production operations?* On a platform where gas containing H_2S of 20 ppm or greater is produced, processed, or otherwise handled:

(i) You must have a sensor in rooms, buildings, deck areas, or low-laying deck areas not otherwise covered by paragraph (j)(2) of this section, where atmospheric concentrations of H_2S could reach 20 ppm or more. You must have at least one sensor per 400 square feet of deck area or fractional part of 400 square feet;

(ii) You must have a sensor in buildings where personnel have their living quarters;

(iii) You must have a sensor within 10 feet of each vessel, compressor, wellhead, manifold, or pump, which could release enough H_2S to result in atmospheric concentrations of 20 ppm at a distance of 10 feet from the component;

(iv) You may use one sensor to detect H_2S around multiple pieces of equipment, provided the sensor is located no more than 10 feet from each piece, except that you need to use at least two sensors to monitor compressors exceeding 50 horsepower;

(v) You do not need to have sensors near wells that are shut in at the master valve and sealed closed;

(vi) When you determine where to place sensors, you must consider:

(A) The location of system fittings, flanges, valves, and other devices subject to leaks to the atmosphere; and

(B) Design factors, such as the type of decking and the location of fire walls; and

[illegible] require additional sensors or other monitoring capabilities, if warranted by site specific conditions.

(6) *How must I functionally test the H_2S Detectors?*

(i) Personnel trained to calibrate the particular H_2S detector equipment being used must test detectors by exposing them to a known concentration in the range of 10 to 30 ppm of H_2S.

(ii) If the results of any functional test are not within 2 ppm or 10 percent, whichever is greater, of the applied concentration, recalibrate the instrument.

(7) *How often must I test my detectors?*

(i) When conducting drilling, drill stem testing, well-completion, or well-workover operations in areas classified as H_2S present or H_2S unknown, test all detectors at least once every 24 hours. When drilling, begin functional testing before the bit is 1,500 feet (vertically) above the potential H_2S zone.

(ii) When conducting production operations, test all detectors at least every 14 days between tests.

(iii) If equipment requires calibration as a result of two consecutive functional tests, the District Supervisor may require that H_2S-detection and H_2S-monitoring equipment be functionally tested and calibrated more frequently.

(8) *What documentation must I keep?*

(i) You must maintain records of testing and calibrations (in the drilling or production operations report, as applicable) at the facility to show the present status and history of each device, including dates and details concerning:

(A) Installation;
(B) Removal;
(C) Inspection;
(D) Repairs;
(E) Adjustments; and
(F) Reinstallation.

(ii) Records must be available for inspection by MMS personnel.

(9) *What are the requirements for nearby vessels?* If vessels are stationed overnight alongside facilities in areas of H_2S present or H_2S unknown, you must equip vessels with an H_2S-detection system that activates audible and visual alarms when the concentration of H_2S in the atmosphere reaches 20 ppm. This requirement does not apply to vessels positioned upwind and at a safe distance from the facility in accordance with the positioning procedure described in the approved H_2S Contingency Plan.

(10) *What are the requirements for nearby facilities?* The District Supervisor may require you to equip nearby facilities with portable or fixed H_2S detector(s) and to test and calibrate those detectors. To invoke this requirement, the District Supervisor will consider dispersion modeling results from a possible release to determine if 20 ppm H_2S concentration levels could be exceeded at nearby facilities.

(11) *What must I do to protect against SO_2 if I burn gas containing H_2S?* You must:

(i) Monitor the SO_2 concentration in the air with portable or strategically placed fixed devices capable of detecting a minimum of 2 ppm of SO_2;

(ii) Take readings at least hourly and at any time personnel detect SO_2 odor or nasal irritation;

(iii) Instruct the personnel [illegible] as specified in the H_2S Contingency Plan if the SO_2 concentration in the work area reaches 2 ppm; and

(iv) Calibrate devices every 3 months if you use fixed or portable electronic sensing devices to detect SO_2.

(12) *May I use alternative measures?* You may follow alternative measures instead of those in paragraph (j)(11) of this section if you propose and the Regional Supervisor approves the alternative measures.

(13) *What are the requirements for protective-breathing equipment?* In an area classified as H_2S present or H_2S unknown, you must:

(i) Provide all personnel, including contractors and visitors on a facility, with immediate access to self-contained pressure-demand-type respirators with hoseline capability and breathing time of at least 15 minutes.

(ii) Design, select, use, and maintain respirators to conform to ANSI Z88.2, American National Standard for Respiratory Protection.

(iii) Make available at least two voice-transmission devices, which can be used while wearing a respirator, for use by designated personnel.

(iv) Make spectacle kits available as needed.

(v) Store protective-breathing equipment in a location that is quickly and easily accessible to all personnel.

(vi) Label all breathing-air bottles as containing breathing-quality air for human use.

(vii) Ensure that vessels attendant to facilities carry appropriate protective-breathing equipment for each crew member. The District Supervisor may require additional protective-breathing equipment on certain vessels attendant to the facility.

(viii) During H_2S alerts, limit helicopter flights to and from facilities to the conditions specified in the H_2S Contingency Plan. During authorized flights, the flight crew and passengers must use pressure-demand-type respirators. You must train all members of [illegible] particular type(s) of respirator equipment made available.

(ix) As appropriate to the particular operation(s), (production, drilling, well-completion or well-workover operations, or any combination of them), provide a system of breathing-air manifolds, hoses, and masks at the facility and the briefing areas. You must provide a cascade air-bottle system for the breathing-air manifolds to refill individual protective-breathing apparatus bottles. The cascade air-bottle system may be recharged by a high-pressure compressor suitable for providing breathing-quality air, provided the compressor suction is located in an uncontaminated atmosphere.

(k) *Personnel safety equipment.*—(1) *What additional personnel-safety equipment do I need?* You must ensure that your facility has:

(i) Portable H_2S detectors capable of detecting a 10 ppm concentration of H_2S in the air available for use by all personnel;

(ii) Retrieval ropes with safety harnesses to retrieve incapacitated personnel from contaminated areas;

(iii) Chalkboards and/or note pads for communication purposes located on the rig floor, shale-shaker area, the cement-pump rooms, well-bay areas, production processing equipment area, gas compressor area, and pipeline-pump area;

(iv) Bull horns and flashing lights; and

(v) At least three resuscitators on manned facilities, and a number equal to the personnel on board, not to exceed three, on normally unmanned facilities, complete with face masks, oxygen bottles, and spare oxygen bottles.

(2) *What are the requirements for ventilation equipment?* You must:

(i) Use only explosion-proof ventilation devices;

(ii) Install ventilation devices in areas where H_2S or SO_2 may accumulate; and

(iii) Provide movable ventilation devices in work areas. The movable ventilation devices must be multidirectional and capable of dispersing H_2S or SO_2 vapors away from working personnel.

(3) *What other personnel safety equipment do I need?* You must have the following equipment readily available on each facility:

(i) A first-aid kit of appropriate size and content for the number of personnel on the facility; and

(ii) At least one litter or an equivalent device.

(l) *Do I need to notify MMS in the event of an H_2S release?* You must [illegible] of a gas release which results in a 15-minute time weighted average atmospheric concentration of H_2S of 20 ppm or more anywhere on the facility.

(m) *Do I need to use special drilling, completion and workover fluids or procedures?* When working in an area classified as H_2S present or H_2S unknown:

(1) You may use either water- or oil-base muds in accordance with § 250.40(b)(1).

(2) If you use water-base well-control fluids, and if ambient air sensors detect H_2S, you must immediately conduct either the Garrett-Gas-Train test or a

comparable test for soluble sulfides to confirm the presence of H_2S.

(3) If the concentration detected by air sensors in over 20 ppm, personnel conducting the tests must don protective-breathing equipment conforming to paragraph (j)(13) of this section.

(4) You must maintain on the facility sufficient quantities of additives for the control of H_2S, well-control fluid pH, and corrosion equipment.

(i) *Scavengers.* You must have scavengers for control of H_2S available on the facility. When H_2S is detected, you must add scavengers as needed. You must suspend drilling until the scavenger is circulated throughout the system.

(ii) *Control pH.* You must add additives for the control of pH to water-base well-control fluids in sufficient quantities to maintain pH of at least 10.0.

(iii) *Corrosion inhibitors.* You must add additives to the well-control fluid system as needed for the control of corrosion.

(5) You must degas well-control fluids containing H_2S at the optimum location for the particular facility. You must collect the gases removed and burn them in a closed flare system conforming to paragraph (q)(6) of this section.

(n) *What must I do in the event of a kick?* In the event of a kick, you must use one of the following alternatives to dispose of the well-influx fluids giving consideration to personnel safety, possible environmental damage, and possible facility well-equipment damage:

(1) Contain the well-fluid influx by shutting in the well and pumping the fluids back into the formation.

(2) Control the kick by using appropriate well-control techniques to prevent formation fracturing in an open hole within the pressure limits of the well equipment (drill pipe, work string, casing, wellhead, BOP system, and related equipment). The disposal of H_2S and other gases must be through pressurized or atmospheric mud-separator equipment depending on volume, pressure and concentration of H_2S. The equipment must be designed to recover well-control fluids and burn the gases separated from the well-control fluid. The well-control fluid must be treated to neutralize H_2S and restore and maintain the proper quality.

(o) *Well testing in a zone known to contain H_2S.* When testing a well in a zone with H_2S present, you must do all of the following:

(1) Before starting a well test, conduct safety meetings for all personnel who will be on the facility during the test. At the meetings, emphasize the use of protective-breathing equipment, first-aid procedures, and the Contingency Plan. Only competent personnel who are trained and are knowledgeable of the hazardous effects of H_2S must be engaged in these tests.

(2) Perform well testing with the minimum number of personnel in the immediate vicinity of the rig floor and with the appropriate test equipment to safely and adequately perform the test. During the test, you must continuously monitor H_2S levels.

(3) Not burn produced gases except through a flare which meets the requirements of paragraph (q)(6) of this section. Before flaring gas containing H_2S, you must activate SO_2 monitoring equipment in accordance with paragraph (j)(11) of this section. If you detect SO_2 in excess of 2 ppm, you must implement the personnel protective measures in your H_2S Contingency Plan, required by paragraph (f)(13)(iv) of this section. You must also follow the requirements of § 250.175. You must pipe gases from stored test fluids into the flare outlet and burn them.

(4) Use downhole test tools and wellhead equipment suitable for H_2S service.

(5) Use tubulars suitable for H_2S service. You must not use drill pipe for well testing without the prior approval of the District Supervisor. Water cushions must be thoroughly inhibited in order to prevent H_2S attack on metals. You must flush the test string fluid treated for this purpose after completion of the test.

(6) Use surface test units and related equipment that is designed for H_2S service.

(p) *Metallurgical properties of equipment.* When operating in a zone with H_2S present, you must use equipment that is constructed of materials with metallurgical properties that resist or prevent sulfide stress cracking (also known as hydrogen embrittlement, stress corrosion cracking, or H_2S embrittlement), chloride-stress cracking, hydrogen-induced cracking, and other failure modes. You must do all of the following:

(1) Use tubulars and other equipment, casing, tubing, drill pipe, couplings, flanges, and related equipment that is designed for H_2S service.

(2) Use BOP system components, wellhead, pressure-control equipment, and related equipment exposed to H_2S-bearing fluids that conform to NACE Standard MR-01-75-[illegible].

(3) Use temporary downhole well-security devices such as retrievable packers and bridge plugs that are designed for H_2S service.

(4) When producing in zones bearing H_2S, use equipment constructed of materials capable of resisting or preventing sulfide stress cracking.

(5) Keep the use of welding to a minimum during the installation or modification of a production facility. Welding must be done in a manner that ensures resistance to sulfide stress cracking.

(q) *General requirements when operating in an H_2S zone*—(1) *Coring operations.* When you conduct coring operations in H_2S-bearing zones, all personnel in the working area must wear protective-breathing equipment at least 10 stands in advance of retrieving the core barrel. Cores to be transported must be sealed and marked for the presence of H_2S.

(2) *Logging operations.* You must treat and condition well-control fluid in use for logging operations to minimize the effects of H_2S on the logging equipment.

(3) *Stripping operations.* Personnel must monitor displaced well-control fluid returns and wear protective-breathing equipment in the working area when the atmospheric concentration of H_2S reaches 20 ppm or if the well is under pressure.

(4) *Gas-cut well-control fluid or well kick from H_2S-bearing zone.* If you decide to circulate out a kick, personnel in the working area during bottoms-up and extended-kill operations must wear protective-breathing equipment.

(5) *Drill- and workover-string design and precautions.* Drill- and workover-strings must be designed consistent with the anticipated depth, conditions of the hole, and reservoir environment to be encountered. You must minimize exposure of the drill- or workover-string to high stresses as much as practical and consistent with well conditions. Proper handling techniques mut be taken to minimize notching and stress concentrations. Precautions must be taken to minimize stresses caused by doglegs, improper stiffness ratios, improper torque, whip, abrasive wear on tool joints, and joint imbalance.

(6) *Flare system.* The flare outlet must be of a diameter that allows easy nonrestricted flow of gas. You must locate flare line outlets on the downside of the facility and as far from the facility as is feasible, taking into account the prevailing wind directions, the wake effects caused by the facility and adjacent structure(s), and the height of all such facilities and structures. You must equip the flare outlet with an automatic ignition system including a pilot-light gas source or an equivalent system. You must have alternate

method for igniting the flare. You must pipe to the flare system used for H_2S all vents from production process equipment, tanks, relief valves, burst plates, and similar devices.

(7) *Corrosion mitigation.* You must use effective means of monitoring and controlling corrosion caused by acid gases (H_2S and CO_2) in both the downhole and surface portions of a production system. You must take specific corrosion monitoring and mitigation measures in areas of unusually severe corrosion where accumulation of water and/or higher concentration of H_2S exists.

(8) *Wireline lubricators.* Lubricators which may be exposed to fluids containing H_2S must be of H_2S-resistant materials.

(9) *Fuel and/or instrument gas.* You must not use gas containing H_2S for instrument gas. You must not use gas containing H_2S for fuel gas without the prior approval of the District Supervisor.

(10) *Sensing lines and devices.* Metals used for sensing line and safety-control devices which are necessarily exposed to H_2S-bearing fluids must be constructed of H_2S-corrosion resistant materials or coated so as to resist H_2S corrosion.

(11) *Elastomer seals.* You must use H_2S-resistant materials for all seals which may be exposed to fluids containing H_2S.

(12) *Water disposal.* If you dispose of produced water by means other than subsurface injection, you must submit to the District Supervisor an analysis of the anticipated H_2S content of the water at the final treatment vessel and at the discharge point. The District Supervisor may require that the water be treated for removal of H_2S. The District Supervisor may require the submittal of an updated analysis if the water disposal rate or the potential H_2S content increases.

(13) *Deck drains.* You must equip open deck drains with traps or similar devices to prevent the escape of H_2S gas into the atmosphere.

(14) *Sealed voids.* You must take precautions to eliminate sealed spaces in piping designs (e.g., slip-on flanges, reinforcing pads) which can be invaded by atomic hydrogen when H_2S is present.

5. In § 250.175, the section heading is revised and paragraph (f) is added to read as follows:

§ 250.175 Flaring or venting gas and burning liquid hydrocarbons.

* * * * *

(f) *Requirements for flaring and venting of gas containing H_2S*—(1) *Flaring of gas containing H_2S.* (i) The Regional Supervisor may, for safety or air pollution prevention purposes, further restrict the flaring of gas containing H_2S. The Regional Supervisor will use information provided in the lessee's H_2S Contingency Plan (§ 250.67(f)), Exploration Plan or Development and Production Plan, and associated documents in determining the need for such restrictions.

(ii) If the Regional Supervisor determines that flaring at a facility or group of facilities may significantly affect the air quality of an onshore area, the Regional Supervisor may require the operator(s) to conduct an air quality modeling analysis to determine the potential effect of facility emissions on onshore ambient concentrations of SO_2. The Regional Supervisor may require monitoring and reporting or may restrict or prohibit flaring pursuant to §§ 250.45 and 250.46.

(2) *Venting of gas containing H_2S.* You must not vent gas containing H_2S except for minor releases during maintenance and repair activities that do not result in a 15-minute time weighted average atmospheric concentration of H_2S of 20 ppm or higher anywhere on the platform.

(3) *Reporting flared gas containing H_2S.* In addition to the recordkeeping requirements of paragraphs (d) and (e) of this section, when required by the Regional Supervisor, the operator must submit to the Regional Supervisor a monthly report of flared and vented gas containing H_2S. The report must contain the following information:

(i) On a daily basis, the volume and duration of each flaring episode;

(ii) H_2S concentration in the flared gas; and

(iii) Calculated amount of SO_2 emitted.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[WA7-1-5542; WA38-1-6974; FRL-5675-7]

Approval and Promulgation of State Implementation Plans; Washington

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving portions of Washington State Implementation Plan revisions submittals for particulate matter for the Spokane and Wallula, Washington, particulate matter nonattainment areas. EPA is also granting temporary waivers of the attainment date for both areas. This action extends the attainment date for particulate matter air pollution from December 31, 1994, to December 31, 1997, in both nonattainment areas. The granting of the temporary waivers will provide the Washington Department of Ecology (Ecology) time to complete technical evaluations of the anthropogenic and nonanthropogenic sources of windblown dust in the area. The purpose of the submitted revisions is to bring about the attainment of the national ambient air quality standards (NAAQS) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM_{10}). The implementation plans were submitted by Ecology to satisfy certain federal Clean Air Act requirements for an approvable moderate PM_{10} nonattainment area SIPs for Spokane and Wallula, Washington.

EFFECTIVE DATE: March 28, 1997.

ADDRESSES: Written comments should be addressed to: Montel Livingston, SIP Manager, EPA, Office of Air Quality (OAQ 107), 1200 Sixth Avenue, Seattle, Washington 98101.

Copies of the State's request and other information supporting this proposed action are available for inspection during normal business hours at the following locations: EPA, Office of Air Quality, 1200 Sixth Avenue (AT-082), Seattle, Washington 98101, and State of Washington Department of Ecology, 300 Desmond Drive, Lacey, Washington 98503.

FOR FURTHER INFORMATION CONTACT: George Lauderdale, Office of Air Quality (AT-082), EPA, Region 10, Seattle, Washington 98101, (206) 553-6511.

SUPPLEMENTARY INFORMATION:

I. Background

The Spokane and Wallula, Washington areas were designated nonattainment for PM_{-10} and classified as moderate under sections 107(d)(4)(B) and 188(a) of the Clean Air Act, upon enactment of the Clean Air Act Amendments of 1990.[1] See 56 FR 56694 (November 6, 1991). The air quality planning requirements for moderate PM_{10} nonattainment areas are set out in subparts 1 and 4 of Part D, Title I of the

[1] The 1990 Amendments to the Clean Air Act made significant changes to the Act. See Pub. L. No. 101-549, 104 Stat. 2399. References herein are to the Clean Air Act, as amended ("the Act"). The Clean Air Act is codified, as amended, in the U.S. Code at 42 U.S.C. sections 7401, *et seq.*