

OCD Comments to be submitted to the OCC concerning the Commissions latest Hydrogen Sulfide (H₂S) draft rule (8/30/02). Hearing to be held September 20, 2002. Case # 12897.

Subsection A. The chemical formula H₂S has been removed. *Recommend putting it back in, at least in this Subsection.* There are numerous signs, technical references and personnel that recognize and utilize the H₂S symbol.

Subsection B. This Subsection should clearly state that this rule applies to all facilities regulated by OCD that have hydrogen sulfide in concentrations of 100 ppm or greater, notwithstanding PHV areas that may have additional requirements. Both the BLM and other states (Texas) put this language up front.

The commission raised the issue of pipelines. OCD's intent was to cover any facility that is regulated by the OCD and if that facility has hydrogen sulfide in concentrations of 100 ppm or greater. This would be consistent with OCD responding to leaks and spills from both gathering, intermediate and main line pipelines. Most mainline pipelines have sweet gas and therefore would be exempt from the regulations. However, there are high volume and pressure sour gas pipelines that are prevalent in the oil field. These lines should be covered under this rule.

Subsection F. The latest commission draft changed Subsection F to include requirements that apply to all OCD regulated facilities with H₂S concentrations of 100 ppm or greater. Signs were included, but winds indicators and other operational equipment and requirements were not. The workgroup's final draft included both signs and wind indicators at these facilities. In addition as to drilling and completion operations, it was intended these operations should have a flare system to safely gather and burn hydrogen sulfide-bearing gas that exceeded 100 ppm even if there is not a PHV present, plus egress routes, safety, detection and monitoring equipment.

It was also intended that certain production facilities should have wind indicators and fencing when located within ¼ mile of a public area.

The latest commission draft of Subsection F included tanks with H₂S concentrations of 100 ppm to be required to have signs and fencing where required.

However, since Subsection H.2. (Minimum standards) only apply if there is a PHV present and since fencing is now under H.2.a there would be no fencing required anywhere since tanks normally do not have the ability to generate a PHV. *OCD recommends that the commission change this language to require fencing in public areas and recommends that the OCC consider including the items mentioned above under Subsection F or revert back to the latest draft.*

Subsection G. Protection from Hydrogen Sulfide During Drilling, Completion, Work over and Well Servicing Operations:

The commission's latest draft attempted to clarify the difference between general requirements for operations that contain 100 ppm of H₂S and requirements for PHV areas. Inserted was the stipulation that all of Paragraph 1 (API Standards) and 2 (Minimum Standards) be applicable only if a "PHV may reasonably be expected to be encountered." Other words, exempting these requirements if there was no PHV.

The workgroup's final draft intended for these Paragraphs to be applicable to all systems and operations containing 100 ppm or greater of H₂S, not just PHV areas. Admittedly, some of the requirements in the workgroup's draft were identified for certain type of PHV areas only.

The API documents are intended to be used in operations that contain both H₂S and PHV conditions. Some of the minimum standards were to be implemented for facilities with 100 ppm or greater of H₂S, and other minimum standards were identified for PHV areas only.

OCD urges the commission to re-evaluate this issue and consider these discrepancies. The commission's draft substantially changes the rule. In some instances it would be less stringent than the current rule 118 and less protective of public safety.

Paragraph G.2.c. and G.2.c.iv The commission deleted the word safety in G.c....and in G.2.c.iv the word safety and prescribed safety equipment.

OCD recommends that these words be re-inserted. The workgroup spent quite a bit of time on this issue. While they did not want to list all of the required equipment in the rule, they did agree that generic language should be incorporated as a requirement. There was quite a bit of discussion concerning that this issue was already required under OSHA and that industry is required to have safety equipment on-site. The workgroup agreed that by included this generic language in the rule it would give flexibility to both the OCD and Industry.

It should be pointed out that OSHA concerns are taken into consideration in many states' H₂S regulations. The following is a quote from the Texas Rule 36 Introduction:

“Rule 36 is designed for the protection of the General Public from the hazards of hydrogen sulfide gas in oil and gas operations and does not pertain to industrial safety as such. The Commission, however believes that education and safety training are the best defense against the hazards of hydrogen sulfide, and **that industry workers must be able to protect themselves if they are to help the general public.**”

Texas Rule 36 and BLM's On-Shore Order #6 has similar safety and equipment language. *OCD urges the OCC to re-consider this issue.*

Sub-Paragraph G.2.c.i The OCD workgroup had consensus concerning the activation level for when detection and monitoring systems would be activated. This value was 20 ppm. It should be pointed out that some operators choose to set more stringent standards to abide by their own in-house regulations and certain federal regulations. The wording of this sub-Paragraph should be changed to allow this flexibility. *OCD recommends that the commission consider accepting the following language.*

i. Each drilling and completion site shall have a hydrogen sulfide detection and monitoring system that automatically activates visible and audible alarms when the ambient air concentration of hydrogen sulfide reaches a predetermined value set by the operator, not to exceed a maximum of 20 ppm. There shall be a sensing point located at the shale shaker, rig floor and bell nipple for a drilling site and the cellar, rig floor and circulating tanks or shale shaker for a completion site.

Subsection H. Protection from Hydrogen Sulfide at Crude oil pump stations, producing wells, tank Batteries, and associated Production Facilities, Refineries, Gas Plants and Compressor Stations.

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Subsection L. Release: The latest draft removed the 50 ppm activation level. OCD recommends the re-insertion of the following language.

1. Activation of the Hydrogen Sulfide Contingency Plan. The hydrogen sulfide contingency plan shall be activated in the event of a release that may create a concentration of hydrogen sulfide of 100 ppm in any public area, 500 ppm at any public road or 100 ppm 3,000 feet from the site of release. In addition, any facility that is required to maintain a contingency plan for a public area shall activate the plan if there is a measured release of hydrogen sulfide gas on-site in a concentration of 50 ppm for a period of ten minutes, or if the on-site personnel are required to don personal protection equipment i.e. life-support systems in order to remain on site.

Rationale for Plan Activation at 50-ppm H₂S for 10 minutes. This is the level at which OSHA requires workers to wear respiratory protection equipment, if this level is present, since it has been scientifically determined that this level is harmful to human beings. Members of the public would be considered more vulnerable than workers at the site in question. On-site workers have medical surveillance to which the general public cannot avail themselves. Nor is the general public trained in H₂S awareness, protection and

escape procedures. The 50-ppm activation level will provide emergency response authorities additional time to respond and provide safety measures for the public before dangerous levels are encountered in public areas.

In addition, the H₂S workgroup had consensus on this entire issue. It was agreed that there must be some trigger level to perform activation in sensitive areas, otherwise personnel at the site may be unsure as to when activation is necessary. Procrastinations and confusion as to requirements in implementing emergency actions may prove to be disastrous. The American Petroleum Association, itself, recommends activation levels.

Industry concerns during the hearing of 7/19/02 were that activation of plans would be required, in remote areas, when there was no obvious threat to the public. OCD's intent is to require this predetermined activation level only in areas in proximity to public areas.

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