

# Ohio

## Regulations for Oil and Gas Operations in H<sub>2</sub>S Areas

1. Are there any devices/alarms required of operators that have H<sub>2</sub>S on location, and if so, at what ppm H<sub>2</sub>S are they required to be set?

The ODNR Division of Oil and Gas Resources Management Attaches Hydrogen Sulfide Gas Permit conditions to permits in townships designated as H<sub>2</sub>S Townships. Prior to penetration of the “Big Lime”, the drilling rig shall be equipped with a gas detection device in the blow line and/or the rig cellar that is capable of monitoring, measuring, and documenting all gas shows.

2. Are there any postings required of operators that have H<sub>2</sub>S on location, and if so, under what circumstances?

None.

3. How are facilities at which H<sub>2</sub>S is present tracked?

The division tracks facilities by township. Any facility in a township designated as H<sub>2</sub>S is assumed to have H<sub>2</sub>S present.

4. What level or levels of H<sub>2</sub>S are considered actionable and under what circumstances?

During drilling, a sustained flow of hydrogen sulfide gas greater than 10 ppm is encountered in the “Big Lime” section and the well is being drilled on air.

A Hydrogen Sulfide release of 20 ppm for 10 minutes or more in working areas OR a release resulting in injury or death of a person.

Urbanized areas where there is a known occurrence of H<sub>2</sub>S, drilling on air is not permitted.

5. Are any additional standards for rules implemented for H<sub>2</sub>S other than the following?
  - a. ANSI- American Nation Standards Institute.
  - b. API – American Petroleum Institute.
  - c. EPA – Environmental Protection Agency.

No

6. Does your state have any specific H<sub>2</sub>S safety regulations? If so, please list them below.

1501:9-1-08(J) In urbanized areas where there is a known occurrence of shallow gas or H<sub>2</sub>S, drilling on air may not be permitted, fluid drilling shall be required. During drilling, the state inspector shall require converting to fluid drilling where there is an imminent threat to safety of the rig crew and/or the public.

7. What are the purposes of the H<sub>2</sub>S regulations?
- Public safety
  - Worker safety
  - Other: \_\_\_\_\_

A. Public Safety & B. Worker Safety

8. What type of training is required for Field Inspectors?

Internal training

9. Are certifications required for Field Inspectors?

No

10. Do you have an H<sub>2</sub>S safety specialist, and if so, what is the specialist's level of expertise?

Yes, staff Environmental Administrator HAZMAT Tech Confined Space  
Additionally, the division has an emergency response team trained to respond to all types of oil field emergencies.

11. Do state inspectors check H<sub>2</sub>S levels, or do they require operators to check?

Require operators to check

12. If state inspectors check H<sub>2</sub>S levels, what are the required procedures/protocols for checking to determine H<sub>2</sub>S levels?

N/A

13. How often are readings required to be made? By whom? How/who keeps up with those readings?

N/A

14. Where are Field Inspectors most likely to check for H<sub>2</sub>S?
- a. Top of stock tanks
  - b. Wellheads
  - c. Gas streams
  - d. Other: \_\_\_\_\_
  - e. Not applicable

Inspector's personal 4-gas detectors only check air in the breathing zone. The gas detectors worn during inspections will detect H<sub>2</sub>S on location if present. Emergency Response team members can be deployed to assist in checking for presence and level of H<sub>2</sub>S at Wellheads and well sites.

15. How do Field Inspectors respond to an H<sub>2</sub>S complaint? (Please include in the response information on any requirements about when the Field Inspector must be accompanied by another person.)

Inspectors are required to respond to complaints within 24 hours or immediately depending on the nature of the complaint. Inspectors are trained to respond to H<sub>2</sub>S complaints with either another inspector or a member of the emergency response team. Inspectors will identify the location of the well, tank battery, and other potential sources of H<sub>2</sub>S before arriving on location. The well owner or facility owner would be contacted to attend the inspection or informed of findings. Inspectors would arrive on location, parking at a safe distance, being aware of wind direction. They will be equipped with a Ventis Pro4 gas detector, and emergency escape pack. Emergency response team members may deploy a MultiRAE pro gas meter along with a FLIR Camera. No H<sub>2</sub>S found or levels are within working limits, the inspection will be completed. H<sub>2</sub>S alarm, inspectors will exit the area following DOGRM safety protocols. Local emergency response notified as necessary. Compliance actions taken if violations are identified and followed up on until resolved. Person who submitted complaint would be contacted and informed of inspection findings.

- a. Know the alarm system
- b. Gas detector calibrated
- c. Always have your gas detector turned on
- d. Know where the potential sources of H<sub>2</sub>S are located
- e. Always know the wind direction
- f. In the event of a hydrogen sulfide release, be prepared to exit by getting upwind by escaping cross wind and around the source to an area of higher elevation.
- g. Never go directly upwind (you may be running into the source)

16. Are inspectors required to wear H<sub>2</sub>S monitors? If so, what type of equipment?

Inspectors are required to wear H<sub>2</sub>S monitors, Ventis Pro4.

**\*Please note, the Division is updating its rules governing H<sub>2</sub>S.**