

**The Office of Oil and Gas; Oil and Gas Wells  
West Virginia Department of Environmental Protection**



**SPILL PREVENTION  
REQUIREMENTS  
*and* REPORTING**

**West Virginia Code:**

**Chapter §22 Article 6 “Oil and Gas Wells; Administration; Enforcement”**

**Chapter §22 Article 6A “Horizontal Well Control Act”**

**May 15, 2014**

# SCOPE of PRESENTATION

## SPILL PREVENTION and REPORTING

- \* "WATERS of the STATE" - Definition
- \* REQUIREMENTS -
  - ✓ Office of Oil and Gas (OOG) Legislative Rules Authority:
    - §22 Article 6 Section 2 Power and Duties
    - §22 Article 6A Section 6(a)(4) Power and Duties
  - ✓ Clean Water Act (CWA).
- \* Purpose in SURFACE and GROUND Water Protection
- \* PREVENTION OF WASTE
  - Natural Gas and Oil Reservoirs (Formation Horizons and Surfaces)
- \* WELL PERMITS and PREVENTION RULES (OOG Authority)
- \* ASSOCIATED FACILITIES and GATHERING PIPELINES

# Acknowledgement

## §22-6-1 OIL AND GAS WELLS . . .

Section 1(y) "Waters of this state" shall have the same meaning as the term "waters" as provided in §22-11-3(23) Water Pollution Control Act.

## §22-11-3 WATER POLLUTION CONTROL ACT . . .

Section 3(23) "Water resources", "water" or "waters" means any and all water on or beneath the surface of the ground, whether percolating, standing, diffused or flowing, wholly or partially within this state, or bordering this state and within its jurisdiction, and includes, without limiting the generality of the foregoing, natural or artificial lakes, rivers, streams, creeks, branches, brooks, ponds (except farm ponds, industrial settling basins and ponds and water treatment facilities), impounding reservoirs, springs, wells, watercourses and wetlands.

## REPORTING: (Part 1)

- §35 Series 1 Miscellaneous Water Pollution Control Rules
- CWA Sec. 311 [33 U.S.C. 1321] Federal Water Pollution Control Act
- National Response Center (NRC)

## PREVENTION: (Part 2)

- §35 Series 1 Miscellaneous Water Pollution Control Rules
- §35 Series 4 Oil and Gas Wells and Other Wells
- §35 Series 8 Rules Governing Horizontal Well Development

## REPORTING: (Part 1)

### §35 Series 1 (Effective June 1<sup>st</sup>, 1991) Miscellaneous Water Pollution Control Rules

Sec 1.1 Scope

Sec 3.0 Discharge Notification and Response

## \* §35-1 Legislation Rules Title 35 . . .

### Miscellaneous Water Pollution Control Rules

#### ➤ 1.1 Scope . . .

- Establishes requirements relating to discharge notification and response, AND
- Waste load allocations,
- Small wastewater treatment plants,
- Permit application filing fee, and
- Outlet markers, and
- Provides prevention measures for facilities operated in connection with the exploration, development, production, storage and recovery of oil and gas, and related mineral resources in this state.

\* §35-1-3 Discharge notification and response.

➤ 3.1 . . .

Owner or operator or person in charge of a facility,

- ✓ Reportable discharge described in subsection 3.3,
- ✓ Notify the Office of Oil and Gas,
- ✓ Calling 1-800-642-3074 immediately; but in no case, later than twenty-four (24) hours after becoming aware of the discharge.

# Calling 1-800-642-3074

[ Statewide Emergency Contact - **24 Hour Contact** ]

## ➤ Homeland Security Emergency Management (WVDHSEM) . . . ←

- ✓ Homeland Security Emergency Response and WVDEP
- ✓ Department of Environmental Protection (WVDEP)
- ✓ Department of Human and Health Resources (DHHR)
- ✓ West Virginia State Police (WVSP)
- ✓ Division of Natural Resources (WVDNR)

National Response Center (NRC)

## \* §35-1-3 Discharge notification and response.

### ➤ 3.2 . . .

- Report the type of substance and the estimated quantity discharged, if known; provide:
  - ✓ *The location of the discharge;*
  - ✓ *Actions the person reporting the discharge proposed to take to contain;*
  - ✓ *Clean--up and remove the substance, if any;*
  - ✓ *And any other information concerning the discharge which the office may request at the time of notification.*
  - ✓ *A written verification of such notification shall be submitted upon request of the office.*

\* §35-1-3 Discharge notification and response.

➤ 3.3 The following discharges from a facility subject to these rules are "reportable discharges" within the meaning of this section:

- 3.3.a Discharge reportable pursuant to Section 311(b) of the Federal Water Pollution Control Act Amendment of 1972, as amended by the Clean Water Act of 1977, 33 U.S.C. 1321, and the regulations promulgated thereunder;
- 3.3.b Any upset or bypass causing effluent limitations established under the general permit to be exceeded; or;
- 3.3.c Any pit failure which results in a discharge to any surface water of the state.

# \* CWA Sec. 311 [33 U.S.C. 1321]

## FEDERAL WATER POLLUTION CONTROL ACT

Sec 311 (a)(1) Oil Definition

Sec 311 (a)(2) Discharge Definition

Sec 311 (b)(1) Declaration of Policy of No Discharges

Sec 311 (b)(2) Hazardous Substance Definition

§47CSR10 National Pollution Discharge Elimination System (NPDES) . . .

-2.21 "Hazardous Substance" means any substance designated under 40CFR116 pursuant to Section 311 of CWA.

40CFR116 Designation of Hazardous Substances

➤ Sec 311 (b)(5) Reporting of "any" discharge of oil or a hazardous substance

## NATIONAL RESPONSE CENTER (NRC) REPORTING

1-800-424-8802

### Oil Discharge Reporting Requirements



#### Reporting Oil Discharges to the National Response Center and EPA

If a facility or vessel discharges oil to navigable waters or adjoining shorelines, waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or Deepwater Port Act of 1974, or which may affect natural resources under exclusive U.S. authority, the owner/operator is required to follow certain federal reporting requirements. These requirements are found in two EPA regulations – 40 CFR part 110, Discharge of Oil regulation, and 40 CFR part 112, Oil Pollution Prevention regulation. The Discharge of Oil regulation provides the framework for determining whether an oil discharge to inland and coastal waters or adjoining shorelines should be reported to the National Response Center. The Oil Pollution Prevention regulation, part of which is commonly referred to as the “SPCC rule,” identifies certain types of discharges from regulated facilities that also need to be reported to EPA. Although these reporting requirements were not changed by EPA’s recent modifications of the Spill Prevention, Control, and Countermeasure (SPCC) rule, this Fact Sheet will help facilities with the Reportable Discharge History criterion associated with the qualified facility option and the oil-filled operational equipment option offered in the recent SPCC modifications.

#### What is a “harmful quantity” of discharged oil?

A harmful quantity is any quantity of discharged oil that violates state water quality standards, causes a film or sheen on the water’s surface, or leaves sludge or emulsion beneath the surface. For this reason, the Discharge of Oil regulation is commonly known as the “sheen” rule. Note that a floating sheen alone is not the only quantity that triggers the reporting requirements (e.g., sludge or emulsion deposited below the surface of the water may also be reportable).

Under this regulation, reporting oil discharges does not depend on the specific amount of oil discharged, but instead can be triggered by the presence of a visible sheen created by the discharged oil or the other criteria described above.

#### To whom do I report an oil discharge?

A facility should report discharges to the National Response Center (NRC) at 1-800-424-8802 or 1-202-426-2675. The NRC is the federal government’s centralized reporting center, which is staffed 24 hours per day by U.S. Coast Guard personnel.

If reporting directly to NRC is not practicable, reports also can be made to the EPA regional office or the U.S. Coast Guard Marine Safety Office (MSO) in the area where the incident occurred.

# National Response Center (NRC)

- **40CFR110**  
**DISCHARGE OF OIL**

- **40CFR112**  
**SPILL PREVENTION (SPCC) Plans**

## **“SHEEN” Rule**

\* §35-1-3 Discharge notification and response.

➤ 3.4 . . .

- Owner or operator of a facility from which a reportable discharge has occurred,
- Or any person responsible for causing such discharge,
- Shall attempt to stop the discharge and shall take reasonable measures to contain, clean-up and remove the discharge, to the extent he is capable of doing so.

## PREVENTION: (Part 2)

### §35 Series 1 (Effective June 1<sup>st</sup>, 1991) Miscellaneous Water Pollution Control Rules

Sec 7.0 Spill Prevention - Production Facilities

Sec 8.0 Spill Prevention - Drilling / Work-over  
Well Operations

Sec 9.0 Submittal of Spill Prevention Plans (SPCC)

## \* §35-1-7 Spill Prevention - Production Facilities.

### ➤ 7.1 Production Facility

- Wells, Flow lines, Separation equipment, Storage facilities, Injection facilities, and auxiliary non-transportation-related equipment and facilities . . .
- All operators shall have appropriate containment and/or diversionary structures or equipment to prevent discharged oil or other pollutants from reaching the waters of the state.

## \* §35-1-7 Spill Prevention - Production Facilities.

### ➤ 7.1 Following preventative systems or its equivalent as a minimum:

- 7.1.a. Dikes, berms, or retaining wall sufficiently impervious to contain spilled oil or other pollutants;
- 7.1.b. Curbing;
- 7.1.c. Culverting, gutters or other drainage system;
- 7.1.d. Weirs, booms or other barriers;
- 7.1.e. Spill diversion ponds;
- 7.1.f. Retention ponds; or
- 7.1.g. Sorbent materials.

## \* §35-1-7 Spill Prevention - Production Facilities.

### ➤ 7.2 At tank batteries central treatment stations . . .

- Dikes shall have drains closed and sealed at all times except when rainwater is being drained.
- Prior to drainage, the diked area shall be inspected.
- Accumulated oil on the rainwater shall be picked up and returned to storage or disposed of in accordance with approved methods.

# \* §35-1-7 Spill Prevention - Production Facilities.

## ➤ 7.3 Field area and structures . . .

- Inspections with regular schedules
- All oils and pollutants removed and disposed

## ➤ 7.4 Tanks compatible with the material stored

## ➤ 7.5 Tank battery with secondary containment

## ➤ 7.6 All tanks visually examined . . .

- By a competent person on . . .
- Scheduled periodic basis
- Includes the foundation and supports of all AST's

\* §35-1-7 Spill Prevention - Production Facilities.

➤ **7.7** Tank battery fail-safe engineered to prevent spills. At a minimum of the following:

- Adequate tank capacity
- Overflow equalizing lines
- Adequate vacuum protection to prevent tank collapse during a pipeline run
- Computerized facilities must have high level sensor alarm systems

## \* §35-1-7 Spill Prevention - Production Facilities.

➤ 7.8 Routine inspection of above ground valves and pipelines including gathering/transport lines

➤ 7.9 Salt waters (oil field brine) examined often

➤ 7.10 Production facilities shall have a program of flow-line maintenance to prevent spills from this source . . . Program should contain . . .

- Periodic examinations,
- Corrosion protection,
- Flow-line replacement, and
- Adequate records, as appropriate, for the individual facility.

# \* §35-1-8 Spill Prevention - Drilling and Work-Over Operations.

## ➤ 8.1 Mobile drilling, completion, or work-over equipment . . .

- Positioned or located adequately
- Prevent spilled oil or other pollutants from reaching waters of the state.

## ➤ 8.2 Catchment basins or diversion structures necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

## ➤ 8.3 Blowout prevention (BOP) assembly and well control system capable of controlling any well head pressure

## \* §35-1-9 Submittal of Spill Prevention Plans

➤ 9.1 Facilities having two discharges of more than 1000 U.S. gallons into the waters of the state within any twelve month period, the owner or operator of such facility shall submit to the Chief:

- Reports of those discharges and corrective action
- Copy of the SPCC Plan with any amendments as required under 40 C.F.R. §112, or Best Management Plan (BMP) as required under any permit

➤ 9.2 Chief to issue orders as deemed necessary on corrective action to protect against future spills, and forward his recommendations to the Regional Administrator for EPA.

- \* §35-Series 4 (previous effective date July 1<sup>st</sup>, 1993)  
(New effective date April 15, 2010)

## OIL AND GAS WELLS AND OTHER WELLS

- Sec 1.1 Scope
- Sec 16 Construction, Operations, and Reclamation
- Sec 17 Preventing Waste
- Sec 21 Construction of Pits and Impoundments

# \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

## ➤ 1.1 Scope.

- Related to oil and gas wells and other wells
  - ✓ Drilling
  - ✓ Fracturing
  - ✓ Workovers
  - ✓ Plugging (Exempt of WW-9 Plan with applications)
- W. Va. Code §22-12-1 (GROUND WATER PROTECTION ACT), et seq. related to groundwater protection applies certain portions and to W. Va. Code §22-10-1, et seq. related to abandoned wells

## \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

- 16.1 through 16.4 Reclamation Under the Construction, Operations, and Reclamation Plan . . .
  - Identifies proposed methods for construction and reclamation . . .
  - Proposals on WW-9 submitted with well permit applications required by W. Va. Code §22-6-6,
    - ✓ Access roads,
    - ✓ Drilling locations,
    - ✓ Pits and impoundments
  - Constructed and maintained to prevent surface run-off carrying excessive sedimentation from the site, to confine all materials leaked or spilled, provide overflow prevention, and maintain integrity.

## \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

### ➤ 16.5 Surface and Underground Water Pollution.

- 16.5.a Before commencing to drill any well for oil and gas, the well owner or operator shall make proper and adequate provision to prevent surface and underground water pollution.

# \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

## ➤ 16.5 Surface and Underground Water Pollution.

- 16.5.b When rotary drilling penetrates a formation known to contain substantial amounts of salt water, drilling will continue to the next casing point by drilling with mud, foaming, or other satisfactory methods for the purpose of isolating the salt water in the formation or preventing the discharge of salt water into a fresh water horizon or to the surface of the ground. In the case of foaming, it is recognized that a certain amount of salt water mixed with the cuttings will be discharged above the surface of the ground, which will be contained in sump pits no larger than necessary for this purpose.

# \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

## ➤ 17. Preventing Waste . . .

### ○ 17.1 Equipment --

- All well owners or operators, contractors, drillers, pipeline companies, or gas distributing companies producing or transporting oil or gas
- Shall use every possible precaution
- Accepted and approved methods
- Prevent waste of oil or gas and to prevent the pollution of the waters of the state
- Drilling and producing operations or
- Transporting or distributing such products
- Not wastefully utilize oil or gas or allow the same to leak or escape from natural reservoirs, wells or pipelines.

# \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

## ➤ 17. Preventing Waste . . .

### ➤ 17.2 Commercial Wells Properly Equipped

- Oil or natural gas in commercial quantities,
- Oil or gas bearing stratum,
- Strata shall be adequately protected from infiltrating waters.

### ➤ 17.3 Protection of High Pressure Wells . . .

- Wells where high pressure and large volume can be reasonably expected,
- Properly working pressure blowout preventer equipment,
- Casings cemented in,
- BOP (both blind and pipe rams or their equivalent) shall be adequately installed and tested.

# \* §35-4 OIL AND GAS WELLS AND OTHER WELLS

## ➤ 21 Construction of Pits and Impoundments with Capacity of Greater Than Five Thousand (5,000) Barrels . . .

- Shall be designed, constructed, located, maintained, and used in accordance with this rule and in such a manner as to minimize adverse environmental effects and to assure safety to the public . . .
- Registry and Notification with OOG;
- Be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer;
- Safety deployment measures;
- Construction Standards;
- Maintenance Standards;
- Routine Inspections;
- Provisions and certifications for permanent structures.

\* §35-8 (Effective July 1<sup>st</sup>, 2013)

*(NEW - June 1<sup>st</sup>, 2014 MSDS)*

Horizontal Well Development Rule

Sec 1 Scope . . .

*This rule shall govern and apply to proceedings under:*

- W. Va. Code § 22-6A-1, et seq., related to horizontal wells
- W. Va. Code § 22-12-1, et seq., related to groundwater protection.

# \* §35-8 Horizontal Well Development Rule

## Sec 18 Spill and Pollution Prevention and Control Measures . . .

*Applies to Well Pads and Operations:*

- Drilling
- Completion
- Work-over
- Production Operations

## \* 18.1 Well Site Equipment . . .

- Positioned and techniques applied
  - ✓ to prevent spills of any pollutants
  - ✓ to surface and ground of the State
  - ✓ potential pollutants identified

## \* 18.2 Equipment position within . . .

- Limit of pad perimeters

## \* 18.3 Placements of . . .

- Linings, feltings, paddings, support boardings
  - Adequate qualities and strengths
  - Areas of complex activities, equipment, and materials.

## \* 18.4 All containment devices . . .

- Appropriately installed and
- Maintained to intercept all spills and pollutants
- Various devices identified

## \* 18.5 Adequate storm-water control and pollutant collection . . .

- Structurally sound and maintained installations

## \* 18.6 Adequate secondary containment

- Impermeable basins for tanks used for stored liquids other than freshwater
- Capacity of one hundred and ten percent (110%) of the largest tank within a battery
- Water Pollution Control Rule (35 CSR 1) and federal SPCC plans may also apply

## \* 18.7 Bulk Storage of dry chemicals and materials . . .

- Placed upon an impermeable base
- Protective of weather conditions
- Protective of storm-water runoff

## \* 18.8 Measures for Pad Inspections . . .

- Made available on site for review
- Applies with drilling, completion, and work-over operations.

## \* 18.9 Reporting Discharges and Spills . . .

- Terms defined in 35 C.S.R. 1 § 3.3,
  - 1-800-642-3074 immediately
  - Surface Waters and Ground Waters apply
  - Contamination threatening



# Questions

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