Air Quality Permit, Enforcement and Rule Updates

Office of Oil and Gas Industry Workshop
October 7, 2015

Robert Keatley, PE
Senior Engineer/Supervisor
DEP – Division of Air Quality
Air Quality Permitting Updates

- New General Permit (“G70-B”) for natural gas production (“well pads”) and support activities
- Public comment ended August 26, 2015
- Currently working on response to comments
- Well Pads that do not qualify for G70-B can still obtain a Rule 13 Permit
G70-B Overview

* Will provide for quicker and easier processing of well pad permit applications

* All federal and state regulations/rules incorporated by reference ("IBR") to address continually changing federal regulations

* Provides greater flexibility for changes/modifications that need made at well pads
G70-B Continued

* Regulates air emissions on a “Facility” wide basis caps
  * Oxides of Nitrogen (NOx) – 50 tons/year
  * Carbon Monoxide (CO) – 80 tons/year
  * Volatile Organic Compounds (VOCs) – 80 tons/year
  * Particulate Matter 10/2.5 – 20 tons/year
  * Sulfur Dioxide (SO2) – 20 tons/year
  * Hazardous Air Pollutants (HAPs) – 8 tons single HAP/year or 20 tons aggregated HAPs/year
Alternative operating scenarios allowed without obtaining a permit modification prior to implementing the change

- Add additional and/or change enclosed combustors/flares
- Increased throughput in condensate/produced water
- Addition storage vessels/tanks, GPUs, line heaters
- Add additional and/or change Vapor Recovery Units (VRUs)
- Changing from a VRU to an enclosed combustor/flare (vice versa)
- Increased throughput to tanker truck loading racks
- Must provide DAQ with written notification of these changes
G70-B Continued

- Annual Certification from the previous year for all modifications/changes to address Potential To Emit (“PTE”)

- Annual Certification Fee - $1,000 certification fee
Section 5.1 of Rule 13 ("45CSR13") - Site Prep rules allowed prior to obtaining a permit

- 5.1.a. Clear land
- 5.1.b. Grub stumps, roots, vegetation
- 5.1.c. Excavate, grade and compact topsoil
- 5.1.d. Dig and construct foundations and/or caissons and grade beams
- 5.1.e. Demolish existing structures (must follow Asbestos and RCRA rules)
- 5.1.f. Upgrade the utility support facilities
Section 5.1 of Rule 13 ("45CSR13")

- 5.1.g. Construct or modify structures which are strictly office buildings, warehouses, or buildings that could potentially be used for those purposes

- 5.1.h. Order equipment and procure supplies

- 5.1.i. Receive or store on-site or off-site any equipment or supplies

*All these activities solely at the risk of the owner or operator*
Section 5.2 of Rule 13

“Prior to obtaining a permit to construct and operate, a source may not cause the erection or installation of an emissions unit”

Equipment can only be stored on-site and shall not be installed (“leave equipment in shrink wrap”)
EPA’s proposed rule changes (9/18/2015) to NSPS OOOO will regulate Green House Gases (GHGs) “methane and VOC emissions” (comments by 11/17/15)

This is part of EPA’s strategy to reduce methane from the oil and gas industry, including NSPS OOOO, proposed CTGs (“RACT”), and a proposed definition of aggregation.
New Source Performance Standard ("NSPS") - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution

- Compliance Date – 8/23/2011
- Compliance Date – Green Completions January 1, 2015
- Last updated August of 2015
NSPS OOOO Updates

- 6 tpy VOC storage vessel/tank trigger EPA reversed definition back to each tank and “not” parallel tanks considered one tank

- Return to Service defined in 8/12/2015 update

- Low Pressure Gas Well definition updated “means a well with reservoir pressure and vertical well depth such that 0.445 time reservoir pressure (in psia) minus 0.038 times the true vertical well depth (in feet) minus 67.578 psia is less than the flow line pressure at the sales meter”
WV DAQ has been conducting inspections using an Optical Gas Imaging Infrared Camera (FLIR camera).

- Inspections on closed vent systems going to an enclosed combustor (flare) or VRU.
-Leaks found primarily on thief hatches and enardo valves.
- High percentage of well pads leaking gas/vapors.
Tank Liquid Level
Condensate Tank Thief Hatch Vapor Leaks
USEPA Compliance Alert

- EPA Observes Air Emissions from Controlled Storage Vessels At Natural Gas Production Sites ("Well Pads") alert was issued September of 2015

Questions?

Robert Keatley, PE
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Phone: 304-926-0499 ext. 1695
E-mail: Robert.L.Keatley@wv.gov