



FEDERAL AND STATE AIR QUALITY

Environmental Law Forum

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Michael J. Heilman, Asst. Regional Counsel, SWOCC

Tom Wolf, Governor

Patrick McDonnell, Secretary

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I. Enforcement: Consent Decrees

A. *PennEnvironment v. ArcelorMittal Monessen, LLC*, CA No. 2:15-cv-01314-CRE (2/2/2018)

1. Background:

- Coke Plant
- Monessen, PA
- Restarted in April 2014
- Numerous violations



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1. Background Cont'd:

- PennEnvironment filed citizens' suit
- EPA and DEP joint enforcement effort
- Department of Justice represented EPA



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2. Key Terms of Consent Decree:

- Continuous Emission Monitors (COMs)
- Elevated Opacity Actions
- Nozzle Evaluation and Replacement
- Calorimeters, O₂ & CO Monitors
- Flue Cap Replacement



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2. Key Terms Cont'd:

- Coke Oven and Battery Heating Engineering Evaluation
 - Battery Repair Work Plan
- Pushing Emissions
 - Evaluation
 - Pushing Emission Control System



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2. Key Terms Cont'd:

- Desulfurization Plant Outages
 - Phase I
 - Full Scale Scrubber Demonstration
 - Phase II



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2. Key Terms Cont'd:

- Odor Control Evaluation and Plan
- Citizen Complaint Plan
 - Community Meetings
- Civil Penalties

- PennEnvironment Community Project
 - Clean Vehicles Project



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2. Key Terms Cont'd:

- Work Plans
 - Fugitive Dust
 - PEC System
 - Coke Ovens
 - Odors



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B. *United States v. MarkWest Liberty Midstream, et al*, CA No. 2:18-cv-00520-LPL (7/9/2018)

- Pigging Operations
- Various locations in Pennsylvania and Ohio
- Ohio not party to Consent Decree



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1. Pigging:

a. Devices used to clean out pipelines

b. Components

- Launchers
- Receivers
- Pigs



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1. Pigging Cont'd:

c. Locations

- Compressor Stations
- Well Pads
- Stand-alone sites



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1. Pigging Cont'd:

d. Emissions assumed insignificant

e. NOT SO

- Especially for “Wet Gas”



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2. Key Terms of Consent Decree (PA):

a. Determining emissions

- 1.2 x Real Gas Law

b. Connect high pressure launcher/receiver to low pressure gathering lines

c. Depressurize with jumper lines before opening hatch



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2. Key Terms of Consent Decree (PA):

- d. Install Pig Ramps
 - Contain liquids
- e. Upgrade flares



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2. Key Terms of Consent Decree Cont'd:

- f. Supplemental Environmental Projects
 - i. Harmon Creek Ambient Air Monitoring
 - Around Harmon Creek Facility
 - 720 days
 - Three VOC Monitoring Stations
 - Met Station
 - Report



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- f. Supplemental Environmental Projects Continued:
 - ii. Equipment transfer to PA DEP
 - iii. MarkWest Emission Control Education
 - iv. Free Licensing Pig Ramps



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- g. Compressor Station Operating Permits
- h. Civil Penalties



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C. *United States v. MPLX, LP*, No. 3-cv-18:2526 (1/8/2019)

1. Gas Fractionation and Processing Plants

- Six States
- Pennsylvania
 - Houston Plant (Washington County)
 - Bluestone Plant (Butler County)



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2. Separate natural gas constituents

3. Key Terms

a. Leak Detection and Repair (LDAR) Program

- Third-party LDAR Audits



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b. Valve Replacement and Improvement Program Cont'd:

- To reduce emissions
- Replacement or repacking
- Low E Valves and packing



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- c. Connector replacements
- d. Process unit improvements
- e. Incorporate into permits
- f. Civil penalties



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4. Supplemental Environmental Projects

- a. Fence Line Monitoring
 - Upwind & Downwind
 - GCMS Monitors
 - Common gas constituents
 - Met station
 - Three years (min)

- b. Predictive Leak Monitoring Study



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II. Regulatory/Permitting: Natural Gas Sector

A. Gas Facilities and Well Pads (June 9, 2018)

- GP-5 (Revised)
- GP-5a (New)
- Exemption 38 (Revised)



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1. GP-5 Revision – Compressor Stations and Transmission Stations:

a. All sources and controls at station:

- Compressor engines
- Turbines
- Dehydration units
- Pigging
- Flares



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- Storage tanks
- Load-out
- Pneumatic controls and pumps
- Catalysts
- SCR
- NSCR
- Adsorbers



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- b. Emission Limits
 - Minor Facilities Only
 - Updated BAT
 - Incorporates Relevant NSPS
 - Methane Limit: 200 TPY/source
- c. Leak Detection and Repair (LDAR)
- d. Ownership Transfer



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2. GP-5a – NEW:

- Unconventional Well Pad sources
- Remote pigging
- Prior and current GP-5 did not apply to well pads



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a. Sources Covered

- Similar to GP-5

b. Emission Limits

- Consistent with GP-5



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c. Restrictions

- Minor Facilities
- VOC greater than 2.7 TPY
- Subset of well pads



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3. Exemption 38:

- Well Pads
 - a. No Plan Approval or Permit required
 - b. Limitations
 - Not a major facility



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- c. Three Groups
 - i. 38(a), Existing Facilities: Constructed prior to August 10, 2013
 - ii. 38(b): Constructed between August 10, 2013 and August 7, 2018
 - iii. 38(c): Constructed after August 7, 2018



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d. Exemptions 38(a) and 38(b) for existing pads and 38(c) for **new conventional** well pads

- Largely status quo



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e. Exemption 38(c): New **Unconventional** Well Pads

- Green Completion
- Methane less than 200 TPY/source
- VOC less than 2.7 TPY/pad
- HAP (total) < 1.0 TPY/pad
- HAP (individual) < 1,000 lbs/pad



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e. Exemption 38(c) (New Unconventional Well Pads) Cont'd:

- HAP limits
- Limited flaring
- LDAR (semiannually)
- Recordkeeping
- No report to DEP



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f. Tangible Progress – NO_x Emissions

- Gas Fired IC Engines
 - 2010: 2.0 lb/BHP-hr (no control)
 - 2018: as low as 0.2 lb/BHP-hr (0.03 lb/BHP-hr control)



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B. Well Pad RACT:

- Well Pad Control Techniques Guidance (CTG) issued by EPA October 27, 2016
- CTG → RACT
- SIP revision required January 1, 2021
- Section 184(b) of Clean Air Act
- March 9, 2019 EPA proposed withdrawing CTG



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1. DEP Draft Well Pad RACT Regulations

- At least as effective as CTG
- To reducing VOC emissions
- Methane reduction a co-benefit



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2. Sources covered

- Storage vessels
- Gas-driven pneumatic controllers
- Gas-driven diaphragm pumps
- Compressors
- Fugitive emissions components

3. Regs not yet published



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C. Power Plants: Gas Fired Turbines

- Big shift in SW Region energy mix
- Past: coal fired EGUs
- Five or six gas fired facility plan approvals issued in past few years



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III. EPA's NSR Reform

A. Project Aggregation (11/17/2018)

1. EPA Guidance (nonbinding)
2. Activities comprising the "Project" for NSR:
 - Nominally separate changes
 - Consider a single project
 - Prevent circumvention



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A. Project Aggregation Cont'd:

3. History
 - 2006: EPA proposed regulations
 - 2009: EPA issued guidance
 - 2009: EPA stay and reconsideration
 - 2018: EPA affirms 2009 aggregation action



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A. Project Aggregation Cont'd:

4. Test: "Substantially related"

- Case specific
- Same/related processes
- Timing not determinative



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5. Rebuttable presumption

- 3 years between projects
- Different projects

6. Rejected Test: "Overall basic purpose"

- Past EPA documents
- "Open-ended"



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B. Project Emissions Accounting Memorandum – NSR Step 1 (3/13/2018)

1. NSR Major Modification Applicability
 - Step 1: Emissions change of project alone
 - Significant emissions increase
 - Step 2: Emissions changes in “contemporaneous period” at Facility
 - 5 years (typ)
 - Significant net emissions increase



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2. EPA 2006 Rulemaking Notice
 - Step 1 only considered project emission increases
 - Decreases ignored
 - “Sum of the emissions increases”
40 CFR § 52.21(a)(2)(iv)(F)
 - Step 2 considers increases and decreases in contemporaneous period



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3. EPA 2018 Memo:

- Step 1 should consider emission increases *and* decreases
- NSR Purpose: “Changes that increase actual emissions”



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3. EPA 2018 Memo (Cont'd)

- Change based on 40 CFR § 52.21(a)(2)(iv)
- “Sum of the difference”
- Step 2 is unchanged



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3. EPA 2018 Memo (Cont'd)

- Reason for Step 1 change?
- Neglecting emissions decreases in Step 1 believed to have killed some projects



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C. Projected Actual Emissions Memo (12/17/2017) – “No Second Guessing”

1. NSR Modification Applicant: Must Determine “Projected Actual Emissions”
 - Would “significant emission increase” result?
 - If significant, NSR may apply
 - Consider “all relevant information”



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2. Challenge to “Projected Actual Emissions”

- Some NSR enforcement cases
- Permit review



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New Approach:

“NSR rules provide no mechanism for agency review of procedurally compliant emission projections.” Memo at 7.



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1. EPA will not examine analysis unless “clear error”
2. No enforcement
 - Unless actual emissions increase
3. Impact: DTE litigation (and other cases) would not have occurred



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D. PSD Significant Impact Levels (SIL):

1. April 2018: Nonbinding Guidance
 - PSD Modeling
 - Gain experience for $PM_{2.5}$, O_3
2. “Cause” or “contribute”
3. Surrogate for zero



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3. SILs not a new concept
4. EHB and Commonwealth Court approved SILs
 - *Groce v. Dept. of Env't'l Prot.*, 921 A.2d 567, 574 (Pa. Cmwlth 2007), 2006 EHB 813, 917-25.



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5. PM_{2.5} and Ozone
 - Secondary formation
 - Challenging modeling
 - Statistical analysis of ambient monitoring



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6. PSD Increment

- PM_{2.5} only

7. NAAQS

- PM_{2.5} & Ozone
- PM_{2.5} SILs in 2010 rulemaking



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Table 1. Recommended SIL Values for Ozone and PM_{2.5} NAAQS

| Criteria Pollutant (NAAQS level) | NAAQS SIL concentration |
|--|-------------------------|
| Ozone 8-hour (70 ppb) | 1.0 ppb |
| PM _{2.5} 24-hour (35 µg/m ³) | 1.2 µg/m ³ * |
| PM _{2.5} annual (12 µg/m ³ or 15 µg/m ³) | 0.2 µg/m ³ |

* The table accounts for the significance level for the 24-hour PM_{2.5} NAAQS in 40 CFR 51.165(b)(2). Refer to the guidance discussion for details.

Table 2. Recommended SIL Values for PM_{2.5} PSD Increments

| Criteria Pollutant (averaging period) | PSD increment SIL concentration | | |
|--|---------------------------------|-----------------------|-----------------------|
| | Class I | Class II | Class III |
| PM _{2.5} (24-hour) | 0.27 µg/m ³ | 1.2 µg/m ³ | 1.2 µg/m ³ |
| PM _{2.5} (annual) | 0.05 µg/m ³ | 0.2 µg/m ³ | 0.2 µg/m ³ |



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E. AIR TOXICS MAJOR SOURCE MEMORANDUM (1/2/2018)

- MACT Applicability
- Reinterpretation of Section 112 of Clean Air Act
- Major Source has potential to emit 10 TPY one HAP or 25 TPY all HAP



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1. EPA 1995 Memo – “Once in, always in”

- If once a Major HAP Source...
Always a Major HAP Source
- Decrease in PTE – no effect
- MACT applies
- 2007 repeal not finalized



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1. 1995 Memo (Cont'd)

- Major Source defined by PTE
- Past policy redefined Major Source

2. Criticism

- Results in Major Sources with lower PTE than Major Source PTE



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2. EPA 2018 Memo

- Major HAP Source may limit PTE
- No longer Major Source
- Area source
- No longer subject to MACT
- Consistent with Clean Air Act text



QUESTIONS?



Office of Chief Counsel

Michael J. Heilman,
Assistant Regional Counsel
E-mail: mheilman@pa.gov