



EPA VOC and Methane Rule Update 2024 GCA Expo & Conference

Dalyce M. Watson, M.A. ENV LAW

Presentation Outline

Quick Reference of Relevant Definitions

Legislative Refresher - Why We Are Here

- a. KKK and why it's relevant
- b. Timeline
- c. Historical Overview

NSPS 0000b & EG of 0000c

Process Controllers

- a. What is a Process Controller
- b. When is it subject
- C. What are the Requirements
- D. Modification/ Reconstruction and Compliance

Tracking

Recip Compressors

NSPS 0000a Update

Blurb: Justice40 → IRA → Methane Emissions Reduction Program → Waste Emission Charge



Definitions & Abbreviations

Congressional Review Act - The CRA (codified at 5 U.S.C. §§801- 808) is a tool that allows Congress to use to overturn certain federal actions. The CRA was enacted as part of the Small Business Regulatory Enforcement Reform Act in 1996. The CRA requires agencies to report the issuance of “rules” to Congress and allows Congress special procedures (via a joint resolution of disapproval), to consider legislation to overturn rules. If a CRA joint resolution of disapproval is approved by both houses of Congress and signed by the President, or if Congress successfully overrides a presidential veto, the rule cannot go into effect or continue in effect.

The Numbers - The CRA has been used to overturn a total of 20 rules: one in the 113th Congress (2011-2012), 16 in the 115th Congress (2017-2018), and three in the 117th Congress (2021-2022).

BSER - The standards of performance being proposed reflect “the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirement) the Administrator determines has been adequately demonstrated”

EG – Emission Guidelines meeting the BSER provided by the EPA to independent states.

Designated Facility - Named specifically in the rule – refer to Tables. Designated as the entire facility or grouping of emissions type not piece of equipment.

KKK

The basis for all
problems

Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011

Applied meaning to “**designation of affected facility**” and created the crux of the “**owner or operator,**”
issue-

(a) (1) The provisions of this subpart apply to affected facilities in onshore natural gas processing plants.

(2) A compressor in VOC service or in wet gas service is an affected facility.

(3) The group of all equipment except compressors (defined in § 60.631) within a process unit is an affected facility. *****Set the stage for Pneumatic Device interpretation issues*****

(b) Any affected facility that commences construction, reconstruction, or modification after January 20, 1984, and on or before August 23, 2011, is subject to the requirements of this subpart.

(e) A compressor station, dehydration unit, sweetening unit, underground storage tank, field gas gathering system, or liquefied natural gas unit is covered by this subpart if it is located at an onshore natural gas processing plant. If the unit is not located at the plant site, then it is exempt from the provisions of this subpart.

A Complicated Timeline Reference

Obama 1/20/09 – 1/20/2017

Trump 1/20/17 – 1/20/2021

Biden 1/20/2021 – Present

NSPS OOOO – Effective August 16, 2012, Retroactive to August 23, 2011

NSPS OOOOa – *Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015*

Effective September 18, 2015 (Codified June 3, 2016)

NSPS OOOOa – EPA finalizes amendments related to the collection of fugitive emission components at well sites and compressor stations, specifically the requirement that components on a delay of repair must conduct repairs during unscheduled or emergency vent blowdowns

2020 Policy Rule - Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review," 85 FR 57018 (Sept. 14, 2020)

2020 Technical Rule - Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration," 85 FR 57398 (September 15, 2020)

The Joint resolution of Congress, adopted on June 30, 2021 under the CRA, disapproved the 2020 Policy Rule (inconsistencies between the VOC and methane standards) & determinations made in the final rule (2020 Technical Rule) specifically with respect to fugitive emissions monitoring at low production well sites and gathering and boosting stations, et al (**DEFINITION ISSUES**)

Proposed Standards for New, Modified and Reconstructed Sources After November 15, 2021 (Proposed NSPS OOOOb) & Proposed EG for Sources Constructed Prior to November 15, 2021 (Proposed EG OOOOc) & Existing OOOOa modifications (Proposal Dec 2022)

Published Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (Prepublication Dec 2023, Codified in Federal Registration March 8, 2024, Effective Date May 7, 2024 – 60 Days After Publication)

40 CFR 60
77 FR 49490

Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution – NSPS OOOO History

Oil and natural gas-related operation as defined by NSPS OOOO encompass wells, gas gathering and processing facilities, storage, and transmission and distribution pipelines

Production: Taking raw natural gas from underground formations.

Gathering and Processing: Stripping out impurities and other hydrocarbons and fluids to produce pipeline grade natural gas that meets specified tariffs (pipeline quality natural gas is 95-98 percent methane).

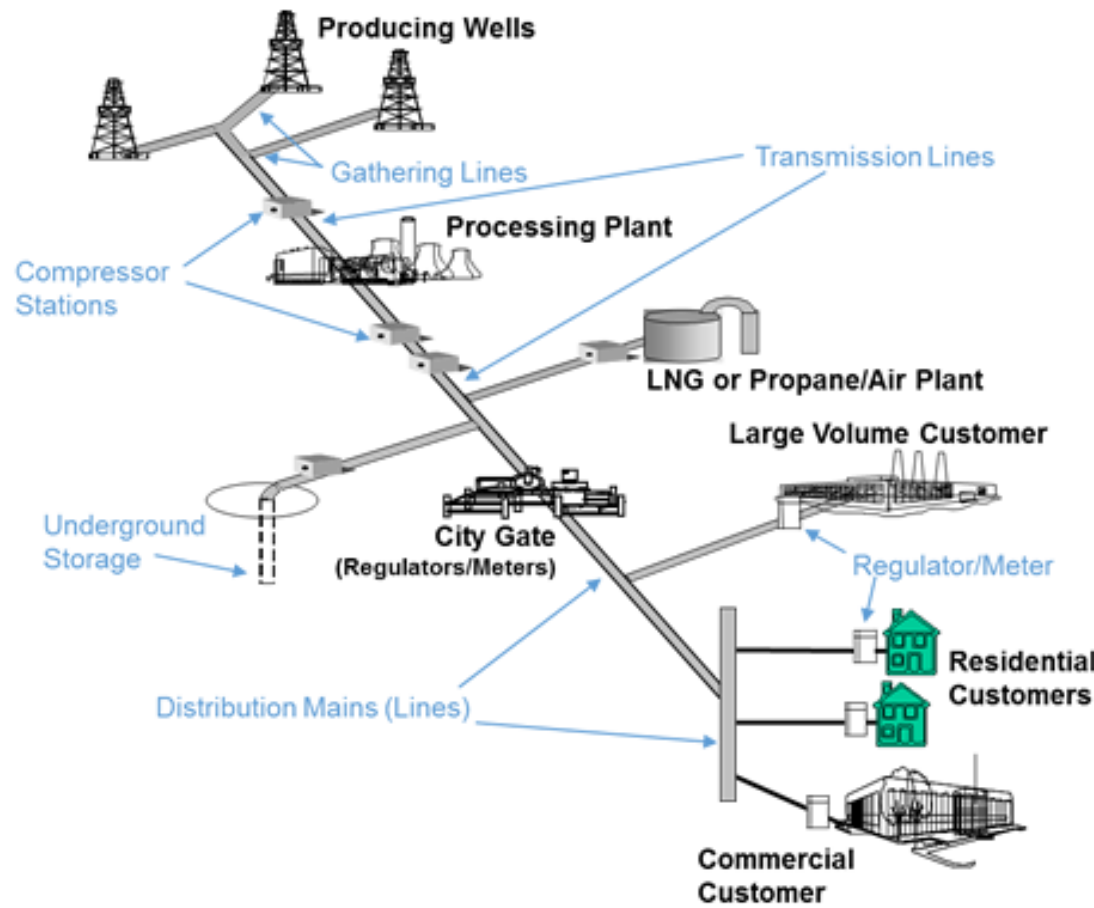
Transmission: Delivery of natural gas from the wellhead and processing plant to city gate stations or industrial end users. Transmission occurs through a vast network of high pressure pipelines. Natural gas storage falls within this sector. Natural gas is typically stored in depleted underground reservoirs, aquifers, and salt caverns.

Distribution: Delivery of natural gas from the major pipelines to the end users (e.g., residential, commercial and industrial).

In the oil industry, some underground crude contains natural gas that is entrained in the oil at high reservoir pressures. When oil is removed from the reservoir, associated natural gas is produced. (What source category is this???)

40 CFR 60
77 FR 49490

Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution – NSPS OOOO History



- Production**
- Pneumatic Controllers
 - Gathering/Boosting Stations
 - Tanks
 - Chemical Injection Pumps

- Gathering and Processing**
- Reciprocating Compressors
 - Centrifugal Compressors
 - Gas Engines
 - Blowdowns/Venting

- Transmission**
- Reciprocating Compressors
 - Station Fugitives
 - Engines
 - Pipelines

- Distribution**
- Mishaps (Dig-ins)
 - Residential
 - Mains - Unprotected Steel
 - Services - Unprotected Steel

40 CFR 60
77 FR 49490

Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution – NSPS OOOO History

- Updated the VOC standards for equipment leaks at onshore natural gas processing plants
- Established VOC standards for several oil and natural gas-related operation emission sources not covered by 40 CFR part 60, subpart KKK - including natural gas well completions, centrifugal and reciprocating compressors, certain natural gas operated pneumatic controllers in the production and processing segments of the industry, and storage vessels in the production, processing, and transmission and storage segments
- 2012,2013,2014 Amendments led to Judicial and Administrative Petitions for Review
- Conclusion – All litigation related to NSPS OOOO has been ruled as in abeyance

*****NO METHANE RULES*****

40 CFR 60
81 FR 35824

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Final Rule – NSPS OOOOa History

Established NSPS for sources of GHGs and VOC emissions for certain equipment, processes, and operations across the Oil and Natural Gas Industry, including in the transmission and storage segment.

Basis – Source Category broad enough to include Transmission & Storage and the EPA can expand the source category to include the transmission and storage segment on grounds that operations in those segments are a sequence of functions that are interrelated and necessary for getting the recovered gas ready for distribution

Very Important To How We Got Here Today: Due to this being the first time that the EPA promulgated NSPS for GHG emissions from the Crude Oil and Natural Gas source category, the EPA had to provide a rational basis to regulate the GHG's. Historically in rule making a rational basis would include a pollutant specific finding that shows a particular industry (source category) contributes significantly to air toxins that are harmful to human health. (i.e. provide a reasonable cost analysis for ulterior methods of industrial process that reduce emissions, ex.: BACT). In response to comments requesting a rationale, the EPA explained that it was not required to make a pollutant-specific finding, that all GHG emissions from the source category contribute significantly to dangerous air pollution.

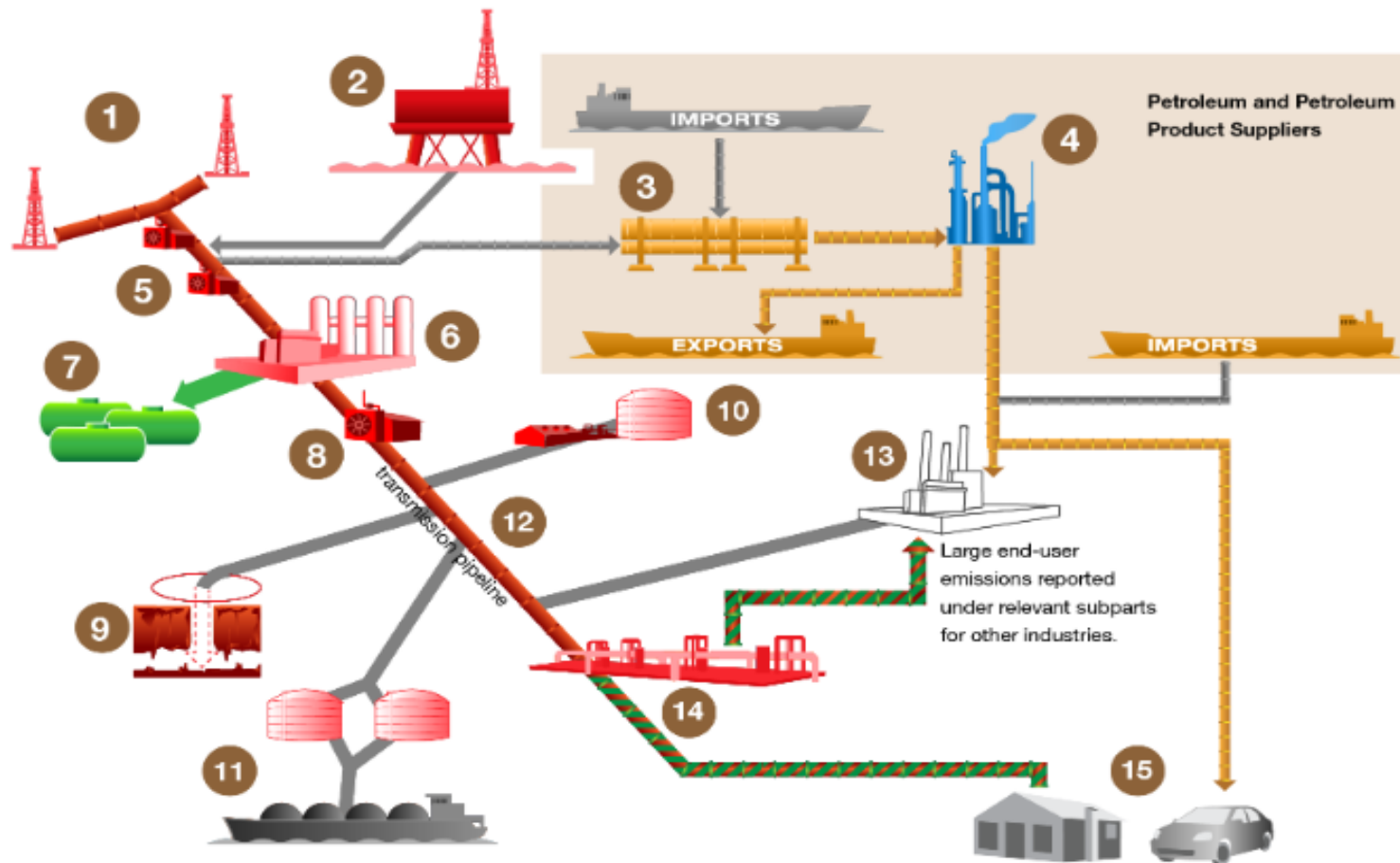
40 CFR 60
81 FR 35824

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Final Rule – NSPS OOOOa History

Specifically, the 2016 NSPS OOOOa addressed the following emission sources:

- Sources that were unregulated under the 2012 NSPS OOOO (hydraulically fractured oil well completions, pneumatic pumps, and fugitive emissions from well sites and compressor stations);
- Sources that were regulated under the 2012 NSPS OOOO for VOC emissions, but not for GHG emissions (hydraulically fractured gas well completions and equipment leaks at natural gas processing plants); and
- Certain equipment that is used across the source category, of which the 2012 NSPS OOOO only regulated emissions of VOC from a subset (pneumatic controllers, centrifugal compressors, and reciprocating compressors, except for those compressors located at well sites).

40 CFR 60
81 FR 35824



Production & Processing

- 1. Onshore Petroleum & Natural Gas Production
- 2. Offshore Petroleum & Natural Gas Production
- 3. Total Crude Oil to Refineries
- 4. Petroleum Refining
- 5. Gathering and Boosting
*Data collection began in RY 2016
- 6. Gas Processing Plant
*May contain NGL Fractionation equipment
- 7. Natural Gas Liquids (NGL) Supply

Natural Gas Transmission & Storage

- 8. Transmission Compressor Stations
- 9. Underground Storage
- 10. Liquefied Natural Gas (LNG) Storage
- 11. LNG Import-Export Equipment
- 12. Natural Gas Transmission Pipeline
*Data collection began in RY 2016

Distribution

- 13. Large End Users
- 14. Natural Gas Distribution
- 15. Natural Gas & Petroleum Supply to Small End Users

	Subpart W: Emissions from petroleum & natural gas systems
	Subpart Y: Emissions from petroleum refineries
	Subpart MM: CO ₂ associated with supplies of petroleum products
	Subpart NN: CO ₂ associated with supplies of natural gas & natural gas liquids
	Not reported under GHGRP

Large end-user emissions reported under relevant subparts for other industries.

40 CFR 60
85 FR 57018

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review– **POLICY RULE**

Rescinded the regulations applicable to the transmission and storage segment

Basis - The source category was specific to the production and processing segments and that the transmission and storage segment is not “sufficiently related” to the production and processing segments, and therefore cannot be part of the same source category.

Rescinded methane monitoring requirements because:

1. Standards were redundant to VOC standards for these segments
2. The Rule interpreted section 111 CAA to require, or at least authorize the Administrator to require, a pollutant-specific “significant contribution finding” (SCF) as a prerequisite to a NSPS for a pollutant, and to require that such finding be supported by some identified standard or established set of criteria for determining which contributions are “significant.”

Conclusion: The policy rule removed the GHG standards therefore no significant contribution finding was reviewed or determination made of its validity.

40 CFR 60
85 FR 57018

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration- **TECHNICAL RULE**

The Technical Rule made further amendments to NSPS OOOOa by :

- Exempting low-production well sites from fugitives monitoring (previously required semiannually),
- Required semiannual monitoring at gathering and boosting compressor stations (previously quarterly),
- Streamlined recordkeeping and reporting requirements,
- Allowed compliance with certain equivalent State requirements as an alternative to NSPS fugitive requirements,
- Added the application process to request the use of new technologies to monitor for fugitive emissions,
- Addressed storage tank batteries for applicability determination purposes and finalized several technical corrections.

Keynote: Because the 2020 Technical Rule was issued after the EPA's rescission of GHG's regulations in the 2020 Policy Rule, the amendments made in the 2020 Technical Rule applied only to the requirements to regulate VOC emissions from this source category.

S.J. Res. 14

Congressional Review Act (CRA) Disapproval June 30, 2021 – President Biden

The signing of the CRA joint resolution of disapproval meant the 2020 Policy Rule was treated as though it had never taken effect which caused:

- The VOC and methane standards for the transmission and storage segment, as well as the methane standards for the production and processing segments were reinstated (i.e. MORE MONITORING OF LEAKS)
- In addition, the EPA's interpretation of authority to include GHG emissions for an NSPS remains intact
- The CRA resolution did not address the 2020 Technical Rule; therefore, all of the additional VOC standards for the production and processing segments remain in effect (rod packing replacement & low bleed/ intermittent bleed pneumatics)

40 CFR 60
89 FR 16820

Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review

NSPS UPDATE Overview Summary: Three distinct groups of actions

NSPS 0000b

Revision of the NSPS for GHGs and VOCs for the Crude Oil and Natural Gas source category under the CAA to reflect the Agency's most recent review of the feasibility and cost of reducing emissions from these sources. (BSER/ Pollutant Specific Significant Contributing Finding)

NSPS 0000c

Proposed emissions guidelines (EG) under the CAA, for states to follow in developing, submitting, and implementing state plans (SIPs) to establish performance standards to limit GHGs from existing sources (designated affected facilities) in the Crude Oil and Natural Gas source category.

NSPS 0000a Amendments

Administrative actions stemming from the joint resolution of disapproval under the CRA 2020 Policy Rule recension

This publication responds to the President's January 20, 2021, Executive order (E.O.) titled "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis," (Justice40 Initiative)

Rule Subpart	Affected Facility Date Range	Requirement
NSPS 0000	8/23/2011 – 9/18/2015	<p>Well site Exemption Allowed</p> <p>26,000 hr rod packing replacement for non well site facilities</p> <p>Fix leaks timely manner at most sites * ask after presentation for further clarification *</p>
NSPS 0000a	9/19/2015 – 12/6/2022	<p>No exemption</p> <p>26,000 hr rod packing replacement (All throws)</p> <p>6scfm or less low bleed pneumatics</p> <p>1st attempt to fix leaks within 30 days of id ** ask after presentation for further clarification**</p>
NSPS 0000b & EG 0000c	After 12/6/2022 or Before 08/23/2011	<p>No exemption</p> <p>8760 rod packing replacement (All throws) or annual flow meter testing with established methane slip (AFTER THE EFFECTIVE DATE OF THE RULE : 60 days after Publication 3/8/ 32024 = 5/7/2024</p> <p>Zero bleed pneumatics (AFTER THE EFFECTIVE DATE OF THE RULE : 60 days after Publication 3/8/ 2024 = 5/8/2024) ** 1 year AOS</p> <p>1st attempt to fix leaks within 14 days of id ** ask after presentation for further clarification**</p>

- Process Controller as a bit of a “Blanket Term,” – The EPA interprets the natural gas industry to use a variety of process control devices to automatically operate valves and control pressure, flow, temperature, liquid level, and other process variables.
- To the EPA such instrumentation and process control equipment fall into one of three categories: (1) pneumatic; (2) electrical; or (3) mechanical.
- The EPA states that the industry uses natural gas-powered pneumatic controllers, or simply “pneumatics,” which make use of readily available high-pressure natural gas to provide the required energy and process control signals.
- Bottom Line – The EPA interprets a Process Controller subject to NSPS OOOOb to be a natural gas powered controller or in broader terms a “Dump Valve,” Natural gas actuator that opens and closes the louver (automated)

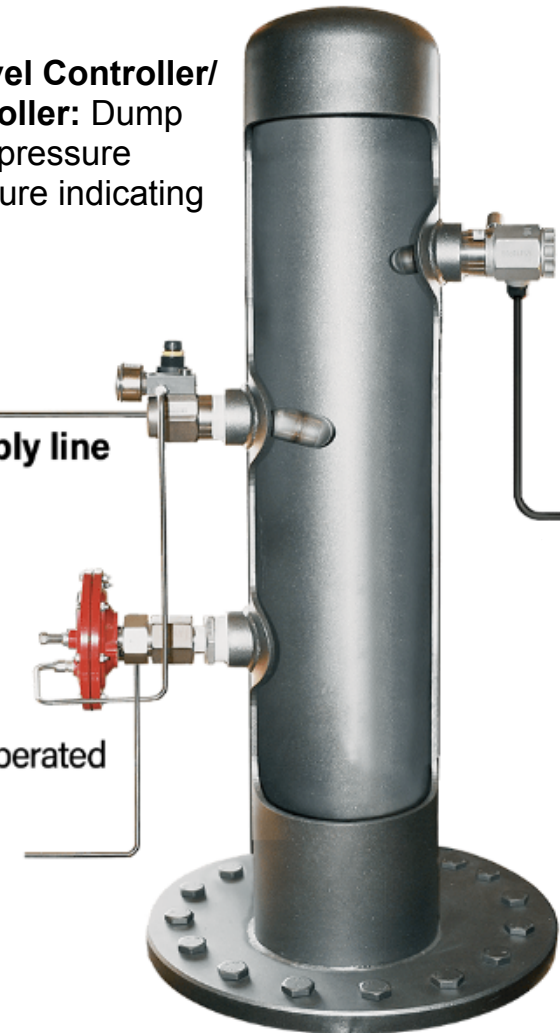
Dump Valve EXPLAINED: In a liquid level controller (dump valve), pressurized gas is directed to the valve actuator to push the valve plug open (when the liquid level is too high), or excess gas pressure is bled off the valve actuator allowing a spring to push the valve plug closed (when the liquid level is too low).

*** Pneumatic actuators used in automatic louver controls that do not control a process gas are could be included ***

**Pneumatic Level Controller/
Process Controller:** Dump
valve operator, pressure
regulator, pressure indicating
gauge

Air/Gas supply line

**Pneumatic
Dump Valve
DV Series:
Diaphragm-operated
dump valve**



Process Controllers

Compliance and Dates

XI.D.2 Process Controllers, Zero Emission Standards pg.410: The EPA disagrees that grid power is necessary to comply with the zero-emissions standard for process controllers. The EPA states there are many other technologically feasible and cost-effective options that are available to owners or operators to achieve zero emissions from process controllers, including self-contained controllers, solar-powered controllers, controllers powered by electric generators, and controllers that have their emissions routed to a process. The EPA believes these options that are not powered by electricity from the commercial power grid are cost reasonable.

- **Why Zero Bleed –** The process controller doesn't care about "what," powers it...as long as pressure over an area exists to create the force that opens and closes the valve
- **Compressed Air as the popular Option**

XI.D.4 Process Controllers, Compliance Dates pg.427

EPA has recognized that some equipment necessary for the installation of zero-emitting process controllers may not be available quickly enough, and in large enough quantities, to enable new sources to comply with the final standard upon startup, or within 60 days after the publication of the final NSPS. **Compliance deadline for process controllers - 1 year from the effective date of the final rule (05/08/2024)**

Interim standard use low-bleed controllers and/or intermittent vent controllers, and to perform monitoring of intermittent vent controllers to ensure they do not vent during idle periods. The other option is to route process controller emissions to a control device.

Lastly -

The EPA defines the process controller affected facility, and designated facility, as the collection of all natural gas-driven process controllers at a site (i.e. permitted or exempt source category)

Modification of a Process Controller - any physical or operational change to an existing facility resulting in an emissions increase is a modification. In addition to this definition of a modification, a modification would also occur for purposes of this particular affected facility when a process controller is added to a site, as this addition would increase emissions from the affected facility, which is the collection of controllers at a site.

Reconstruction of a Process Controller – occurs whenever greater than 50 percent of the number of existing onsite natural gas-driven process controllers are replaced OR when the fixed capital cost of the new pneumatic controllers exceeds 50 percent of the fixed capital cost that would be required to replace all the pneumatic controllers at the site. The “fixed capital cost of the new pneumatic controllers” includes the fixed capital cost of all pneumatic controllers which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year rolling period

XI.I.1 Recip Compressors, Numeric standard versus work practice standard (DELAY OF REPAIR) pg 588.: The final rule requires repairs to be initiated 14 days after first discovery in some cases, up to 30 days in others.

The rule allows for a delay of repair if the repair or replacement (1) is technically infeasible, (2) would require a vent blowdown, (3) would require a process unit or facility shutdown, (4) needs to be delayed because parts or materials are unavailable, or (5) would be unsafe to repair during operation of the unit. In cases where there is a need for delay of repair, the repair must be completed during the next scheduled process unit or facility shutdown for maintenance, after a scheduled vent blowdown, or within 2 years, whichever is earliest.

XI.I.2 Recip Compressors, Rod packing Change Out, Schedule Based Approach pg 590.: The EPA is not including the 26,000-hour, fixed-schedule rod packing replacement as an alternative option to the condition-based 2 scfm volumetric flow rate monitoring option. However, under the final rule, the EPA has clarified that an owner or operator would be allowed to replace rod packing on or before 8,760 hours of operation after last rod packing replacement or monitoring and forgo the need to conduct the required performance based volumetric flow rate monitoring. *SEM TECH High Flow2 (47,000ish) and NO FLIR (Quantifies other gases)*

Note - An affected facility is the entire RECIP compressor, therefore all throws must be changed AT ONE TIME for it count toward the annual 8,760 rod packing replacement.

NSPS 0000a

After September 18, 2015, and on or Before
December 6, 2022

The Original NSPS 0000a well site exemption remains, HOWEVER a reciprocating compressor in service at a permitted or exempt site is considered affected at a Centralized production facility.

- **Centralized production facility** - means one or more storage vessels and all equipment at a single surface site used to gather, for the purpose of sale or processing to sell, crude oil, condensate, produced water, or intermediate hydrocarbon liquid from one or more offsite natural gas or oil production wells. This equipment includes, but is not limited to, equipment used for storage, separation, treating, dehydration, artificial lift, combustion, compression, pumping, metering, monitoring, and flowline. Process vessels and process tanks are not considered storage vessels or storage tanks. A centralized production facility is located upstream of the natural gas processing plant or the crude oil pipeline breakout station and is a part of producing operations.

For further clarification...

- **Reciprocating Compressor Affected Facility** - means a single reciprocating compressor. A reciprocating compressor located at a centralized production facility is an affected facility under this subpart.

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Definitions & Abbreviations

Justice40 – Transforming and providing funding to 100's of federal climate, clean energy, and related investments to provide at least 40 % of the benefits of those programs to communities that are marginalized by underinvestment and overburdened by pollution. Executive Order 14176

IRA – As part of the Justice40 initiative, The Inflation Reduction Act provides new authorities under the Clean Air Act to reduce methane emissions from the oil and gas sector through the creation of the Methane Emissions Reduction Program focused on key methane producing regions where disadvantaged communities are located.

Methane Emissions Reduction Program - Tasked with reducing emissions of methane and other greenhouse gas (GHGs) from the oil and gas sector along with non-GHG emissions such as volatile organic compounds and hazardous air pollutants in or near overburdened communities where people live, work, and go to school by:

1. The \$1 billion+ in financial and technical assistance
2. Waste Emissions Charge (WEC) for methane,
3. Revision of the Greenhouse Gas Reporting Program (GGRP) Subpart W

WEC –The Waste Emissions Charge (WEC) for methane applies to oil and natural gas facilities that emit more than 25,000 metric tons of CO₂ equivalent per year as reported under Subpart W of the Greenhouse Gas Reporting Program, that exceed statutorily specified waste emissions thresholds set by Congress and that are not otherwise exempt from the charge.

The Current Timeline of Events

August 16, 2022 – IRA signed (Public Law 117-169), adding **Sect. 136, “Methane Emissions & Waste Reduction Incentive Program for Petroleum & Natural Gas Systems,” or more commonly known as the Methane Emissions Reduction Program (MERP).

November 4, 2022 – EPA publishes an RFI seeking public comment on a range of non-regulatory dockets to collect data on a range of questions including MERP. Docket closed January 18, 2023

June 30, 2023 – EPA & DOE Partner to provide +\$1 Billion in aid to reduce methane emissions

July 6, 2023 – EPA proposes updates to GHG Reporting requirements

December 15, 2023 – Biden Administration announces \$ 350 million in funding to 14 States

February 9, 2024 – EPA and DOE release NOI to make funds available to interested entities in the 14 states

February 20, 2024 – WEC Proposed Rule published in Federal Register

March 26, 2024 – Comment period extension ends for WEC Proposed Rule

CEJST

Methane Emissions Reduction Program Funding Distribution Summarized

The [Climate and Economic Justice Screening Tool](#) (CEJST) is an interactive mapping tool to identify disadvantaged communities that are marginalized by underinvestment and overburdened by pollution.

- Updated Annually
- Federal Agencies use as a primary tool for identifying geographical areas covered under the \$1 billion dollar funding initiative



Climate and Economic Justice
Screening Tool

[Explore the map](#)

[Methodology & data](#)

[About](#)

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Explore the map

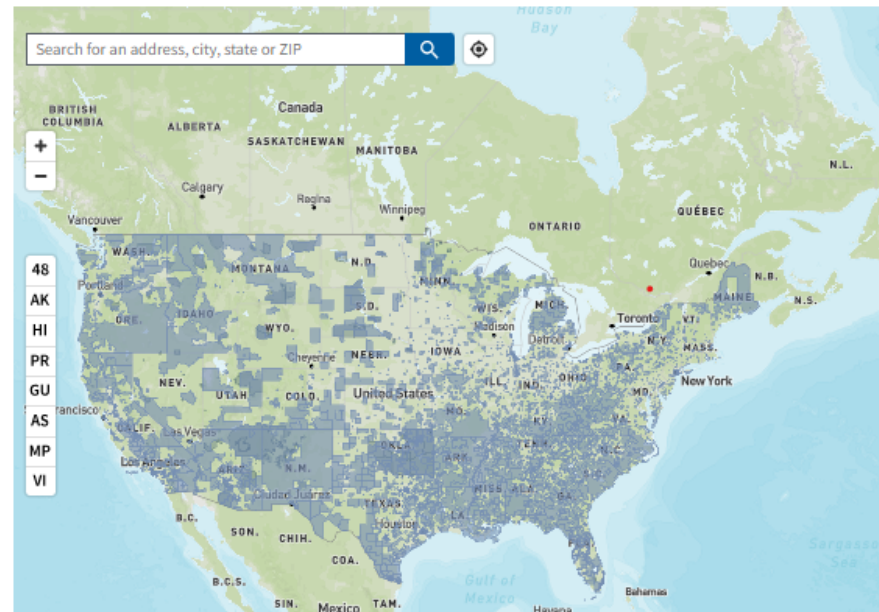
Share data sources with CEQ

Census tracts that are overburdened and underserved are highlighted as being disadvantaged on the map. Federally Recognized Tribes, including Alaska Native Villages, are also considered disadvantaged communities.

Zooming in and selecting shows information about each census tract.

Get the data

Download the data with documentation and shapefile from the [downloads](#) page.



How to use the map:

Zoom in + , search 🔍 , or locate yourself 📍 and select to see information about any census tract.

Things to know:

The tool uses census tracts 🗺️. Census tracts are a small unit of geography. They generally have populations 👥 of between 1,200 - 8,000 people.

Communities that are disadvantaged live in tracts that experience burdens. These tracts are highlighted 🟦 on the map.

The tool ranks most of the burdens using percentiles 📊. Percentiles show how much burden each tract experiences.

Awardees

Methane Emissions Reduction Program Funding Distribution Summarized

States with conditional funding commitments based on a participating state's proportion of the total number of low-producing conventional wells in participating states on nonfederal lands:

1. Texas Commission on Environmental Quality: \$134,151,343
2. Pennsylvania Department of Environmental Protection: \$44,457,220
3. West Virginia Department of Environmental Protection: \$37,791,464
4. California State Lands Commission: \$21,913,688
5. Ohio Department of Natural Resources: \$19,941,597
6. Illinois Department of Natural Resources: \$17,367,009
7. Louisiana Department of Natural Resources: \$15,661,335
8. New Mexico Department of Energy, Minerals, and Natural Resources: \$14,656,151
9. Kentucky Energy and Environment Cabinet: \$12,912,198
10. Colorado Department of Natural Resources: \$12,608,270
11. New York State Department of Environmental Conservation: \$8,123,602
12. Michigan Department of Environment, Great Lakes, and Energy: \$5,022,306
13. State of Utah Department of Environmental Quality: \$2,750,115
14. State of Virginia Department of Energy: \$2,643,702

NOI

Methane Emissions Reduction Program Funding Distribution Summarized

Technical Objective for funding in the 14 States – monitor and mitigate methane emissions and legacy air pollution from oil and gas assets, focusing on marginal conventional wells (MCW) through

MCW - idle or producing onshore vertical or slightly deviated oil or natural gas well (excludes highly deviated or horizontal wells) with a known owner / operator producing less than or equal to 15 barrels of oil equivalent per day (BOED) and/or 90 thousand cubic feet (Mcf) natural gas per day (1 BOE = 6 Mcf) over the prior 12-month period.

AOI No.1: Methane Emissions Reduction for Existing Wells & Infrastructure

Identify MCW's and other small producer assets through the installation of retrofit technologies, including tribal lands

AOI No. 2: Accelerating Deployment of Methane Reduction Solutions

Developing/ Deploying the commercialization of methane reducing technologies from gas fueled compressors and engines, flare stacks and other complex and difficult to mitigate emission sources

AOI No. 3: Regional Consortia

Collection of data to characterize and quantify the total methane emissions from the industry across multiple large geographical areas where disadvantaged communities have been identified through collaborative partnerships of operators, universities, environmental justice groups, regulatory agencies, industry groups and federally funded research facilities

All of the research will be given to the EPA and other federal agencies aiding in the regulatory review of GHG Subpart W Reporting

Methane Emissions Reduction Program

The Basics

What Are the Numbers - 2024 at \$900 per metric ton of methane, increasing to \$1,200 per metric ton in 2025, and \$1,500 per metric ton in 2026 and thereafter

What Entities are Covered – 25000 mt CO₂e in the following segments

1. Offshore petroleum and natural gas production
2. Onshore petroleum and natural gas production
3. Onshore natural gas processing
4. Onshore natural gas transmission compression
5. Underground natural gas storage
6. Liquefied natural gas storage
7. Liquefied natural gas import and export equipment
8. Onshore petroleum and natural gas gathering and boosting
9. Onshore natural gas transmission pipelines

How do you calculate the actual emissions to identify if your applicable

Step No. 1: Waste Emission Threshold = Facility throughput X IRA established industry segment intensity thresholds

Step No. 2: Waste Emissions Threshold – Reported Subpart W Methane Emissions = Value in metric tons methane (i.e. - the facility applicable emissions) If the value exceeds the facility waste emissions threshold – You pay based on the scale above

If the value is below the facility waste emissions threshold – You do not pay

The Exemptions

Unreasonable Permitting Delay – Only can be used if the emissions would have been mitigated if the permit was issued

Regulatory Compliance – All state plans and methane standards related to NSPS OOOOb and Eg OOOOc are in place and facility complies

Plugged Well – previously shut in and plugged in the previous year in accordance with all closure requirements

Netting – Facilities “under common ownership or control exceeding” the waste threshold may net emissions from facilities below the waste emissions threshold “within and across all applicable segments.”

Methane Emissions Reduction Program Highlights of Commonly found Concerns

1. Incomplete Rulemaking Proceedings

- a. GHGRP Subpart W – calculation used to determine WEC
- b. EG OOOOc – Several years away from implementation and directly impacts the Regulatory Compliance Exemption
- c. WEC Proposed Rule – Doesn't allow for meaningful stakeholder engagement or NOI participation

2. Netting

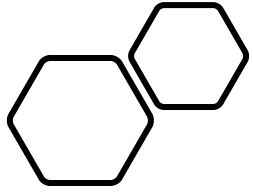
- a. Owner or Operator issue – Parent Company & Subsidiaries vs. Subsidiary & Sites
- b. Site determination – aggregating emissions & site vs. facility issue
- c. Fee payment schedule – Which company pays
- d. Exclusion of facilities with emissions below 25,000 mt/ yr CO₂e – Should include facilities from applicable (relevant or synonymous facilities withing the 9 reporting segments)

3. RECIP Emissions not classified as “waste emissions”

- a. Methane from RECIPs considered beneficial – Lowers criteria pollutants (NO_x and CO)
- b. NSPS JJJJ drove g/hp-hr standards down – Forces the industry to pay for EPA promulgated emissions

4. Constraints of research related to both the NOI and WEC

- a. No process or structure explaining the use of empirical data found
- b. Incentivizes non-participation because entities are unwilling to pay none applicable fees



EPA VOC and Methane
Rule Update
2024 GCA
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Questions,
Suggestions &
Challenges

Dalyce M. Watson, M.A. ENV LAW

Environmental Specialist

Cell: (903) 331.8264

dwatson@jwenergy.com