

40 CFR 60 NSPS Proposal Summary

3/1/2023

Summary of Actions

1. Proposed Standards for New, Modified and Reconstructed Sources After November 15, 2021 (Proposed NSPS OOOOb)

As described in sections XI and XII of the preamble, under the authority of CAA section 111(b)(1)(B) the EPA reviewed the VOC, GHG (in the form of limitations on methane), and SO₂ standards in the 2016 NSPS OOOOa (as amended in 2020 by the Technical Rule). Based on its review, the EPA is proposing revisions to the standards for certain emissions sources to reflect the updated BSER for those affected sources. Where shown that the BSER for an affected source remains the same, the EPA is proposing to retain the current standard for that affected source. In addition, the EPA is proposing methane and VOC standards for several new sources that are currently unregulated, for which construction, reconstruction, or modification commenced after November 15, 2021, (the date of publication of the proposed revisions to the NSPS). In particular, this action proposes revisions to strengthen the 2016 NSPS OOOOa VOC and methane standards addressing fugitive emissions from well sites and compressor stations, pneumatic controllers, reciprocating compressors, pneumatic pumps, and equipment leaks at natural gas processing plants; and proposes new VOC and methane standards for well liquids unloading operations and intermittent vent pneumatic controllers, and oil wells with associated gas previously not regulated in the 2016 NSPS OOOOa.

2. Proposed EG for Sources Constructed Prior to November 15, 2021 (Proposed EG OOOOc)

As described in sections XI and XII of the preamble, under the authority of CAA section 111(d), the EPA is proposing the first nationwide EG for GHG (in the form of methane limitations) for all Crude Oil and Natural Gas source categories. When the EPA establishes NSPS for a source category, the EPA is required to issue EG to reduce emissions of certain pollutants from existing sources in that same source category. In such circumstances, under CAA section 111(d), the EPA must issue regulations to establish procedures under which States submit plans to establish, implement, and enforce standards of performance for existing sources for certain air pollutants to which a Federal NSPS would apply if such existing source were a new source. Thus, the issuance of CAA section 111(d) final EG does not impose binding requirements directly on sources but instead provides requirements for states in developing their plans.

In this action, the EPA is proposing BSER determinations and the degree of limitation achievable through application of the BSER for certain existing equipment, processes, and activities. For the EG, the EPA is proposing to translate the degree of emission limitation achievable through application of the BSER (i.e., level of stringency) into presumptive standards that States may use in the development of State plans for specific designated facilities. By doing this, the EPA has formatted the proposed EG such that if a State chooses to adopt these presumptive standards, once finalized, the EPA could approve such a plan as meeting the requirements of the finalized EG, if the plan meets all other applicable requirements. In this way, the presumptive standards included in the EG serve a function similar to that of a model rule, because they are intended to assist States in developing their plan submissions by providing States with a starting point for standards that are based on general industry parameters and assumptions. The EPA believes that providing these presumptive standards will create a streamlined approach for States in developing plans and the EPA in evaluating State plans. However, the EPA's action on each State plan submission is carried out via rulemaking, which includes public notice and comment.

Designated facilities located in Indian country would not be encompassed within a State's CAA section 111(d) plan. Instead, an eligible Tribe that has one or more designated facilities located in its area of Indian country would have the opportunity, but not the obligation, to seek authority and submit a plan that establishes standards of performance for those facilities on its Tribal lands. If a Tribe does not submit a plan, or if the EPA does not approve a Tribe's plan, then the EPA has the authority to establish a Federal plan for that Tribe.

3. Proposed Amendments to 2016 NSPS OOOOa, and CRA-Related CFR Updates

The EPA is also proposing certain modifications to the 2016 NSPS OOOOa to address certain amendments to the VOC standards for sources in the production and processing segments finalized in the 2020 Technical Rule. Because the methane standards for the production and processing segments and all standards for the transmission and storage segment were removed from the 2016 NSPS OOOOa via the 2020 Policy Rule prior to the finalization of the 2020 Technical Rule, the latter amendments apply only to the 2016 NSPS OOOOa VOC standards for the production and processing segments. In this proposed rulemaking, the EPA also is proposing to apply some of the 2020 Technical Rule amendments to the methane standards for all industry segments and to VOC standards for the transmission and storage segment in the 2016 NSPS OOOOa. These amendments are associated with the requirements for well completions, pneumatic pumps, closed vent systems, fugitive emissions, alternative means of emission limitation (AMELs), onshore natural gas processing plants, as well as other technical clarifications and corrections. The EPA also is proposing to repeal the amendments in the 2020 Technical Rule that (1) exempted low production well sites from monitoring fugitive emissions and (2) changed monitoring of VOC emissions at gathering and boosting compressor stations from quarterly to semiannual, which currently apply only to VOC standards (not methane standards) from the production and processing segments.

Lastly, in the final rule for this action, the EPA plans to update the NSPS OOOO and OOOOa provisions in the CFR to reflect the CRA resolution's disapproval of the final 2020 Policy Rule, specifically, the reinstatement of the OOOO and OOOOa requirements that the 2020 Policy Rule repealed but that came back into effect immediately upon enactment of the CRA resolution.

GENERAL INFORMATION & TABLES

Am I subject to this subpart?

Category	NAICS code ¹	Examples of regulated entities
Industry	211120	Crude Petroleum Extraction.
	211130	Natural Gas Extraction.
	221210	Natural Gas Distribution.
	486110	Pipeline Distribution of Crude Oil.
	486210	Pipeline Transportation of Natural Gas.
Federal Government		Not affected.
State/local/Tribal government		Not affected.

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

Citation: 86 FR 6311040

Docket Number [EPA-HQ-OAR-2021-0317; FRL-8510-02- OAR]

RIN 2060-AV16

ACTION: Proposed Rule Summary

Table 2 & Table 3 – Summary of Proposed BSER & Proposed Standards of Performance for GHGs & VOC NSPS OOOOb & OOOOc

Table 2—Summary of Proposed BSER and Proposed Standards of Performance for GHGS and VOC
[NSPS OOOO b]

Affected source	Proposed BSER	Proposed standards of performance for GHGs and VOCs
Fugitive Emissions: Well Sites with Baseline Emissions >0 to <3 tpy ¹ Methane	Demonstrate actual site emissions are reflected in calculation	Perform survey to verify that actual site emissions are reflected in calculation.
Fugitive Emissions: Well Sites ≥3 tpy Methane	Monitoring and repair based on quarterly monitoring using OGI ²	<p>Quarterly OGI monitoring following appendix K. (Optional quarterly EPA Method 21 monitoring with 500 ppm defined as a leak).</p> <p>First attempt at repair within 30 days of finding fugitive emissions. Final repair within 30 days of first attempt.</p>
(Co-proposal) Fugitive Emissions: Well Sites with Baseline Emissions ≥3 to <8 tpy Methane	Monitoring and repair based on semiannual monitoring using OGI	<p>Semiannual OGI monitoring following appendix K. (Optional semiannual EPA Method 21 monitoring with 500 ppm defined as a leak).</p> <p>First attempt at repair within 30 days of finding fugitive emissions. Final repair within 30 days of first attempt.</p>
(Co-proposal) Fugitive Emissions: Well Sites with Baseline Emissions ≥8 tpy Methane	Monitoring and repair based on quarterly monitoring using OGI	<p>Quarterly OGI monitoring following appendix K. (Optional quarterly EPA Method 21 monitoring with 500 ppm³ defined as a leak).</p> <p>First attempt at repair within 30 days of finding fugitive emissions. Final repair within 30 days of first attempt.</p>
Fugitive Emissions: Compressor Stations	Monitoring and repair based on quarterly monitoring using OGI	<p>Quarterly OGI monitoring following appendix K. (Optional quarterly EPA Method 21 monitoring with 500 ppm defined as a leak).</p> <p>First attempt at repair within 30 days of finding fugitive emissions. Final repair within 30 days of first attempt.</p>

Fugitive Emissions: Well Sites and Compressor Stations	(Optional) Screening, monitoring, and repair based on bimonthly screening using an advanced measurement technology and annual monitoring using OGI	(Optional) Alternative bimonthly screening with advanced measurement technology with annual OGI monitoring following appendix K.
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Pneumatic Controllers: Natural Gas Driven that Vent to the Atmosphere	Use of zero-emissions controllers	VOC and methane emission rate of zero.
Reciprocating Compressors (except for those located at single well sites)	Replace the reciprocating compressor rod packing based on annual monitoring (when measured leak rate exceeds 2 scfm ⁷) or route emissions to a process	Replace the reciprocating compressor rod packing when measured leak rate exceeds 2 scfm based on the results of annual monitoring or collect and route emissions from the rod packing to a process through a closed vent system under negative pressure.
Pneumatic Pumps: Natural Gas Processing Plants	A natural gas emission rate of zero	A natural gas emission rate of zero from diaphragm and piston pneumatic pumps.
Pneumatic Pumps: Production Segment	Route diaphragm and piston pneumatic pumps to an existing control device or process	95 percent control of diaphragm and piston pneumatic pumps if there is an existing control or process on site. 95 percent control not required if (1) routed to an existing control that achieves less than 95 percent or (2) it is technically infeasible to route to the existing control device or process.
Equipment Leaks at Natural Gas Processing Plants	LDAR ⁹ with bimonthly OGI	LDAR with OGI following procedures in appendix K.

¹ tpy (tons per year). □

² OGI (optical gas imaging).

³ ppm (parts per million).

⁴ PTE (potential to emit).

⁵ scfh (standard cubic feet per hour).

⁶ BMP (best management practices).

⁷ scfm (standard cubic feet per minute).

⁸ REC (reduced emissions completion).

⁹ LDAR (leak detection and repair).

1. Oil & Natural Gas Industry – Structure

The EPA defines the oil and natural gas industry's operations into four segments: (1) Extraction and production of crude oil and natural gas ("oil and natural gas production"), (2) natural gas processing, (3) natural gas transmission and storage, and (4) natural gas distribution. The EPA regulates oil refineries as a separate source category; and for purposes of this proposed rulemaking, for crude oil, the EPA's focus is on operations from the well to the point of custody transfer at a petroleum refinery, while for natural gas, the focus is on all operations from the well to the local distribution company custody transfer station commonly referred to as the "city-gate."

A. Production Segment

The oil and natural gas production segment includes the wells and all related processes used in the extraction, production, recovery, lifting, stabilization, and separation or treatment of oil and/or natural gas (including condensate). Although many wells produce a combination of oil and natural gas, wells can generally be grouped into two categories, oil wells and natural gas wells. Oil wells comprise two types, oil wells that produce crude oil only and oil wells that produce both crude oil and natural gas (commonly referred to as "associated" gas). Production equipment and components located on the well pad may include, but are not limited to, wells and related casing heads; tubing heads; "Christmas tree" piping, pumps, compressors; heater treaters; separators; storage vessels; pneumatic devices; and dehydrators. Production operations include well drilling, completion, and recompletion processes, including all the portable non-self-propelled apparatuses associated with those operations.

Other sites that are part of the production segment include "centralized tank batteries," stand-alone sites where oil, condensate, produced water, and natural gas from several wells may be separated, stored, or treated. The production segment also includes gathering pipelines, gathering and boosting compressor stations, and related components that collect and transport the oil, natural gas, and other materials and wastes from the wells to the refineries or natural gas processing plants.

B. Processing Segment

The natural gas processing segment consists of separating certain hydrocarbons (HC) and fluids from the natural gas to produce "pipeline quality" dry natural gas. The degree and location of processing is dependent on factors such as the type of natural gas (e.g., wet or dry gas), market conditions, and company contract specifications. Typically, processing of natural gas begins in the field and continues as the gas is moved from the field through gathering and boosting compressor stations to natural gas processing plants, where the complete processing of natural gas takes place. Natural gas processing operations separate and recover NGL or other non-methane gases and liquids from field gas through one or more of the following processes: oil and condensate separation, water removal, separation of NGL, sulfur and CO₂ removal, fractionation of NGL, and other processes, such as the capture of CO₂ separated from natural gas streams for delivery outside the facility.

2. A Historical Legislative Look

2012 NSPS OOOO Rule

In 2012, pursuant to its duty to review and, if appropriate, revise the 1985 NSPS, the EPA published the final rule, "Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution," 77 FR 49490 (August 16, 2012) (40 CFR part 60, subpart OOOO) ("2012 NSPS OOOO"). The 2012 rule updated the SO₂ standards for sweetening units and the VOC standards for equipment leaks at onshore natural gas processing plants. In addition, it established VOC standards for several oil and natural gas-related operations emission sources not covered by 40 CFR part 60, subparts 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. In 2013, 2014, and 2015 the EPA amended the 2012 NSPS OOOO rule in order to address implementation of the standards. The EPA received petitions for both judicial review and administrative reconsiderations for the 2012, 2013, and 2014

NSPS OOOO rules. The EPA denied reconsideration for some issues and granted reconsideration for other issues. Currently all litigation related to NSPS OOOO is currently in abeyance.

Relevant Information Regarding Subpart KKK - 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

§ 60.630 Applicability and designation of affected facility.

- (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.
- (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.

§ 60.631 Definitions.

Equipment means each pump, pressure relief device, open-ended valve or line, valve, compressor, and flange or other connector that is in VOC service or in wet gas service, and any device or system required by this subpart.

In wet gas service means that a piece of equipment contains or contacts the field gas before the extraction step in the process.

Natural gas liquids means the hydrocarbons, such as ethane, propane, butane, and pentane, that are extracted from field gas.

Natural gas processing plant (gas plant) means any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both.

Process unit means equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

Reciprocating compressor means a piece of equipment that increases the pressure of a process gas by positive displacement, employing linear movement of the driveshaft.

2016 NSPS OOOOa Rule and Related Amendments

On June 3, 2016, the EPA published a final rule titled “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources; Final Rule,” at 81 FR 35824 (40 CFR part 60, subpart OOOOa) (“2016 Rule” or “2016 NSPS OOOOa”). The 2016 NSPS OOOOa rule 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. 81 FR at 35832. The EPA explained that the 1979 listing identified the source category broadly enough to include that segment and, in the alternative, if the listing had limited the source category to the production and processing segments, the EPA affirmatively expanded 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. 81 FR at 35832. In addition, because this rule was the first time that the EPA had promulgated NSPS for GHG emissions from the Crude Oil and Natural Gas source category, the EPA predicated those NSPS on a determination that it had a rational basis to regulate GHG emissions from the source category. 81 FR at 35843. In response to comments, the EPA explained that it was not required to make an additional pollutant-specific finding that GHG emissions from the source category contribute significantly to dangerous air pollution, but in the alternative, the EPA did make such a finding, relying on the same information that it relied on when determining that it had a rational basis to promulgate a GHGs NSPS. 81 FR at 35843.

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 regulated emissions of VOC from only a subset (pneumatic controllers, centrifugal compressors, and reciprocating compressors, with the exception of those compressors located at well sites).

On March 12, 2018 ([83 FR 10628](#)), the EPA finalized amendments to certain aspects of the 2016 NSPS OOOOa requirements for the collection of fugitive emission components at well sites and compressor stations, specifically (1) the requirement that components on a delay of repair must conduct repairs during unscheduled or emergency vent blowdowns, and (2) the monitoring survey requirements for well sites located on the Alaska North Slope.

Following promulgation of the 2016 NSPS OOOOa rule, several states and industry associations challenged the rule in the D.C. Circuit. The Administrator also received five petitions for reconsideration of several provisions of the final rule. The EPA granted reconsideration as to several issues raised with respect to the 2016 NSPS OOOOa rule and finalized certain modifications (2020 Policy & Technical Rules). Thus leading to all litigation challenging the 2016 NSPS OOOOa rule to be currently stayed.

2020 Policy and Technical Rules

Policy Rule

On September 14, 2020, the EPA published two final rules to amend 2012 NSPS OOOO and 2016 NSPS OOOOa. The first is titled, "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review." [85 FR 57018](#) (September 14, 2020). Commonly referred to as the 2020 Policy Rule, it first rescinded the regulations applicable to the transmission and storage segment on the basis that the 1979 listing limited the source category 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. 85 FR at 57027, 57029. In addition, the 2020 Policy Rule rescinded methane requirements for the industry's production and processing segments on two separate bases. The first was that such standards are redundant to VOC standards for these segments. 85 FR at 57030. The second was that the rule interpreted section 111 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." 85 FR at 57034. The rule went on to conclude that the alternative significant contribution finding that the EPA made in the 2016 Rule for GHG emissions was flawed because it accounted for emissions from the transmission and storage segment and because it was not supported by criteria or a threshold. 85 FR at 57038.

Technical Rule

Published on September 15, 2020, the second of the two rules is titled, “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration.” Commonly referred to as the 2020 Technical Rule, this second rule made further amendments to the 2016 NSPS OOOOa following the 2020 Policy Rule to eliminate or reduce certain monitoring obligations and to address a range of issues in response to administrative petitions for reconsideration and other technical and implementation issues brought to the EPA's attention since the 2016 NSPS OOOOa rulemaking. Specifically, the 2020 Technical Rule:

Exempted 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,

Streamlined 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 the day after the EPA's rescission of methane 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. The 2020 Policy Rule amended 40 CFR part 60, subparts OOOO and OOOOa, as finalized in 2016. The 2020 Technical Rule amended the 40 CFR part 60, subpart OOOOa, as amended by the 2020 Policy Rule.

Complicated Case History

The EPA received three petitions for reconsideration of the 2020 rulemakings. Two of the petitions sought reconsideration of the 2020 Policy Rule. As discussed below, on June 30, 2021, the President signed into law S.J. Res. 14, a joint resolution under the CRA disapproving the 2020 Policy Rule, and as a result, the petitions for reconsideration on the 2020 Policy Rule are now moot. All three petitions sought reconsideration of certain elements of the 2020 Technical Rule.

Several States and non-governmental organizations challenged the 2020 Policy Rule as well as the 2020 Technical Rule. All petitions for review regarding the 2020 Policy Rule were consolidated into one case in the D.C. Circuit. *State of California, et al. v. EPA*, No. 20-1357. On August 25, 2021, after the enactment of the joint resolution of Congress disapproving the 2020 Policy Rule, the court granted petitioners motion to voluntarily dismiss their cases.

All petitions for review regarding the 2020 Technical Rule were consolidated into a different case in the D.C. Circuit. *Environmental Defense Fund, et al. v. EPA*, No. 20-1360 (D.C. Cir.). On February 19, 2021, the court issued an order granting a motion by the EPA to hold in abeyance the consolidated litigation over the 2020 Technical Rule pending EPA's rulemaking actions in response to and pending the conclusion of EPA's potential reconsideration of the 2020 Technical Rule.

As mentioned above, the EPA received petitions for judicial review regarding the 2012, 2013, and 2014 NSPS OOOO rules as well as the 2016 NSPS OOOOa rule. The challenges to the 2012 NSPS OOOO rule (as amended by the 2013 NSPS OOOO and 2014 NSPS OOOO rules) were consolidated. *American Petroleum Institute v. EPA*, No. 13-1108 (D.C. Cir.). The majority of those cases were further consolidated with the consolidated challenges to the 2016 NSPS OOOOa rule. *West Virginia v. EPA*, No. 16-1264 (D.C. Cir.), see specifically ECF Dkt #1654072. As such, *West Virginia v. EPA* includes challenges to the 2012 NSPS OOOO rule (as amended by the 2013 NSPS OOOO and 2014 NSPS OOOO rules) as well as challenges to the 2016 NSPS OOOOa rule. On December 10, 2020, the court granted a joint

motion of the parties in *West Virginia v. EPA* to hold that case in abeyance until after the mandate has issued in the case regarding challenges to the 2020 Technical Rule. *West Virginia v. EPA*, ECF Dkt #1875192.

Congressional Review Act (CRA) Joint Resolution of Disapproval

On June 30, 2021, the President signed into law a joint resolution of Congress, S.J. Res. 14, adopted under the CRA, disapproving the 2020 Policy Rule. By the terms of the CRA, the signing into law of the CRA joint resolution of disapproval means that the 2020 Policy Rule is “treated as though [it] had never taken effect.” 5 U.S.C. 801(f). As a result, the VOC and methane standards for the transmission and storage segment, as well as the methane standards for the production and processing segments—all of which had been rescinded in the 2020 Policy Rule—remain in effect. In addition, the EPA's authority, and obligation to require the States to regulate existing sources of methane in the Crude Oil and Natural Gas source category under section 111(d) of the CAA also remains in effect.

The CRA resolution did not address the 2020 Technical Rule; therefore, those amendments remain in effect with respect to the VOC standards for the production and processing segments in effect at the time of its enactment. As part of this rulemaking, in sections VIII and X the EPA discusses the impact of the CRA resolution and identifies and proposes appropriate changes to reinstate the regulatory text that had been rescinded by the 2020 Policy Rule and to resolve any discrepancies in the regulatory text between the 2016 NSPS OOOOa Rule and 2020 Technical Rule.

Because under the CRA, the disapproved 2020 Policy Rule is treated as though it had never taken effect the preceding regulation, the 2016 NSPS OOOOa rule, was automatically reinstated, and treated as though it had never been revised by the 2020 Policy Rule. Moreover, the CRA bars EPA from promulgating “a new rule that is substantially the same as” a disapproved rule. For example, a rule that deregulates methane emissions from the production and processing sectors or deregulates the transmission and storage sector entirely.

Ultimately the CRA led to the rejection of EPA's statutory interpretations of section 111 in the 2020 Policy Rule and endorsed the legal interpretations contained in the 2016 NSPS OOOOa rule. Specifically, Congress expressed its intent that the transmission and storage segment be included in the source category, that sources in that segment remain subject to NSPS, and that all oil and gas sources be subject to NSPS for methane emissions.

The EPA is now proceeding to propose additional requirements to reduce emissions from oil and gas sources, consistent with the statutory factors the EPA is required to consider under section 111 and with section 111's overarching CRA legislation. While the reinstatement of the 2016 Rule through the CRA joint resolution of disapproval provides the predicate for this action, the EPA notes that, the EPA would reject the positions concerning legal interpretations taken in the 2020 Policy Rule and reaffirm the positions the Agency took in the 2016 Rule even absent the CRA resolution due to new technologies and BSER.

3. NSPS OOOOa Summary of Proposed Actions

As described above, the 2020 Policy Rule rescinded all NSPS regulating emissions of VOC and methane from sources in the natural gas transmission and storage segment of the Oil and Natural Gas Industry and NSPS regulating methane from sources in the industry's production and processing segments. As a result, the 2020 Technical Rule only amended the VOC standards for the production and processing segments in the 2016 NSPS OOOOa, because those were the only standards that remained at the time that the 2020 Technical Rule was finalized. The 2020 Technical Rule included amendments to address a range of technical and implementation issues in response to administrative petitions for reconsideration and other issues brought to the EPA's attention since promulgating the 2016 NSPS. These included, among other issues, those associated with the implementation of the fugitive emissions requirements and pneumatic pump standards, provisions to apply for the use of an AMEL, and modification to the engineer certifications. In 2018, the EPA proposed amendments to address these technical issues for both the methane and VOC standards in the 2016 NSPS OOOOa, and in some instances for sources in the transmission and storage segment. However, because the methane standards and all standards for the transmission and storage segment were removed via the 2020 Policy Rule prior to the finalization of the 2020 Technical Rule, the final amendments in the 2020 Technical Rule apply only to the 2016 NSPS OOOOa VOC standards for the production and processing segments.

Under the CRA, the requirements in the 2012 NSPS OOOO and 2016 NSPS OOOOa that the 2020 Policy Rule repealed (the VOC and methane standards for the transmission and storage segment, as well as the methane standards for the production and processing segments) must be treated as being in effect immediately upon enactment of the joint resolution on June 30, 2021. Any new, reconstructed, or modified facility that would have been subject to the 2012 or 2016 NSPS (“affected facility”) but for the 2020 Policy Rule was subject to those NSPS as of that date. The CRA resolution did not address the 2020 Technical Rule; therefore, the amendments made in the 2020 Technical Rule, which apply only to the VOC standards for the production and processing segments in the 2016 NSPS OOOOa, remain in effect. As a result, sources in the production and processing segments are now subject to two different sets of standards:

- (1) Standards for methane based on the 2016 NSPS OOOOa,
- (2) Standards for VOC that include the amendments to the 2016 NSPS OOOOa made in the 2020 Technical Rule.

Sources in the transmission and storage segment are subject to the methane and VOC standards as promulgated in either the 2012 NSPS OOOO or the 2016 NSPS OOOOa, as applicable.

In this action, the EPA is proposing amendments to the 2016 NSPS OOOOa to (1) rescind the revisions to the VOC fugitive emissions monitoring frequencies at well sites and gathering and boosting compressor stations in the 2020 Technical Rule as those revisions were not supported by the record for that rule, or by our subsequent information and analysis, and (2) adjust other modifications made in the 2020 Technical Rule to address technical and implementation issues that result from the CRA disapproval of the 2020 Policy Rule. The EPA is not reopening any of these prior rulemakings for any other purpose in this proposed action.

Amendments to Fugitive Emissions Monitoring Frequency

The EPA is proposing to repeal its amendments in the 2020 Technical Rule that (1) exempted low production well sites from monitoring fugitive emissions and (2) changed from quarterly to semiannual monitoring of VOC emissions at gathering and boosting compressor stations.

In short, as a result of the CRA disapproval of the 2020 Policy Rule, the low production well sites and the gathering and boosting compressor stations continue to be subject to semiannual and quarterly monitoring of methane emissions respectively. While it is possible for these affected facilities to comply with both the VOC and methane monitoring standards that are now in effect, as compliance with the more stringent standard would be deemed compliance with the other, the EPA reviewed its decisions to amend the VOC monitoring frequencies for these affected facilities as well as the underlying record and, for the reasons explained below, no longer believe that the amendments are appropriate. Therefore, the EPA is proposing to repeal these amendments and restore the semiannual and quarterly monitoring requirements for low production well sites and gathering and boosting compressor stations, as originally promulgated in the 2016 NSPS OOOOa, for both methane and VOC.

1. Low Production Well Sites

As mentioned above, low production well sites are subject to semiannual monitoring of fugitive methane emissions. The EPA is proposing to repeal the amendment in the 2020 Technical Rule exempting low production well sites from monitoring fugitive VOC emissions because the analysis for the 2020 Technical Rule supports retaining the semiannual monitoring requirement when regulating both VOC and methane emissions. While the 2020 Technical Rule amended only the VOC standards in the production and processing segments, the EPA evaluated both methane and VOC reductions in its final technical support document (TSD) (2020 TSD), including the costs associated with different monitoring frequencies under the multipollutant approach,^[175]

which the EPA considers a reasonable. Under the multipollutant approach, the cost of semiannual monitoring at low production well sites is \$850 per ton of methane and \$3,058 per ton of VOC reduced, both of which are well within the range of what the EPA considers to be cost effective. Also, due to the wide variation in well characteristics, types of oil and gas products and production levels, gas composition, and types of equipment at well sites, there is considerable uncertainty regarding the relationship between the fugitive emissions and production levels. Accordingly, the EPA no longer believes that production levels provide an appropriate threshold for any exemption from fugitive monitoring. In light of the above, the EPA is proposing to remove the exemption of low production

well sites from fugitive VOC emissions monitoring, thereby restoring the semiannual monitoring requirement established in the 2016 NSPS OOOOa.

2. Gathering and Boosting Compressor Stations

The EPA is proposing to repeal its amendment to the VOC monitoring frequency for gathering and boosting compressor stations in the 2020 Technical Rule because the EPA believes that amendment was made in error. In that rule, the EPA noted that, based on its revised cost analysis, quarterly monitoring has a cost effectiveness of \$3,221/ton of VOC emissions and an incremental cost of \$4,988/ton of additional VOC emissions reduced between the semiannual and quarterly monitoring frequencies. While the EPA observed that semiannual monitoring is more cost effective than quarterly, the EPA nevertheless acknowledged that “these values (total and incremental) are considered cost-effective for VOC reduction based on past EPA decisions, including the 2016 rulemaking.” 85 FR 57421, September 15, 2020. The EPA instead identified two additional factors to support its decision to forgo quarterly monitoring.

First, the EPA stated that the “Oil and Gas Industry is currently experiencing significant financial hardship that may weigh against the appropriateness of imposing the additional costs associated with more frequent monitoring.” However, the EPA did not offer any data regarding the financial hardship, significant or otherwise, the industry was experiencing. While the rule cited to several articles on the impact of COVID-19 on the industry, the EPA did not discuss any aspect of any of the cited articles that led to its conclusion of “significant financial hardship” on the industry. Nor did the EPA explain how reducing the frequency of a monitoring requirement that had been in effect since 2016 would meaningfully affect the industry’s economic circumstances in any way or weigh those considerations against the forgone emission reductions that would result from reducing monitoring frequency.

Second, the EPA generally asserted that “there are potential efficiencies, and potential cost savings, with applying the same monitoring frequencies for well sites and compressor stations.” Again, the EPA did not describe what the potential efficiencies are or the extent of cost savings that would justify forgoing quarterly monitoring or weigh those efficiencies and cost savings against the forgone emission reductions that would result from reducing the monitoring frequency for compressor stations.

Based on the compliance records for the 2016 NSPS OOOOa, there is no indication that compressor stations experienced hardship or difficulty in complying with the quarterly monitoring requirement. Further, the analysis for NSPS OOOOb and EG OOOOc confirms that quarterly monitoring remains both achievable and cost-effective for compressor stations, and several State agencies also have rules that require quarterly monitoring at compressor stations. For the reasons stated above, the EPA concludes that it lacked justification and thus erred in revising the VOC monitoring frequency for gathering and boosting compressor stations from quarterly to semiannual. The EPA is therefore proposing to repeal that amendment, thereby restoring the quarterly monitoring requirement for gathering and boosting compressor stations, as established in the 2016 NSPS OOOOa.

B. Technical and Implementation Amendments

In the following sections, the EPA describes a series of proposed amendments to 2016 NSPS OOOOa for methane to align the 2016 methane standards with the current VOC standards (which were modified by the 2020 Technical Rule). The EPA describes supporting rationales that were provided in the 2020 Technical Rule for modifying the requirements applicable to the VOC standards, and explain why the amendments would also appropriately apply to the reinstated methane standards.

1. Pneumatic Pumps

In the 2020 Technical Rule, the EPA made certain amendments to the VOC standards for pneumatic pumps in the 2016 NSPS OOOOa. For the same reasons provided in the 2020 Technical Rule, the EPA is proposing to apply the same amendments to the methane standards for pneumatic pumps in the 2016 NSPS OOOOa.

First, the EPA is proposing to amend the 2016 NSPS OOOOa methane standards for pneumatic pumps to expand the technical infeasibility provision to apply to pneumatic pumps at greenfield sites.

In the final rule preamble for the 2016 NSPS OOOOa, the EPA stated we did not intend to require the installation of a control device at a well site for the sole purpose of controlling emissions from a pneumatic pump, but rather only required control of pneumatic pumps to the extent a control device or process would already be available on site. It is not the EPA's intent to require a greenfield site to install a control device specifically for controlling emissions from a pneumatic pump. It is our understanding that sites are designed to maximize operation and safety. This includes the placement of equipment, such as control devices. Because vented gas from pneumatic pumps is at low pressure, it may not be feasible to move collected gas through a closed vent system to a control device, depending on site design. Therefore, the EPA continues to conclude that, when determining technical feasibility at any site, such a determination should consider the routing of pneumatic pump emissions to the controls which are needed for the other processes at the site (i.e., not the pneumatic pump). The owner or operator must justify and provide professional or in-house engineering certification for any site where the control of pneumatic pump emissions is technically infeasible. As explained in the RTC for the 2020 Technical Rule, "[t]he EPA believes that the requirement to certify an engineering assessment to demonstrate technical infeasibility provides protection against an owner or operator purposely designing a new site just to avoid routing emissions from a pneumatic pump to an onsite control device or to a process." Therefore, the EPA is proposing to align the methane standards in the 2016 NSPS OOOOa for controlling pneumatic pump emissions with the amendments made to the VOC standards in the 2020 Technical Rule to allow for a well-justified determination of technical infeasibility at all well sites, including greenfield sites.

2. Closed Vent Systems (CVS)

As in the 2020 Technical Rule, the EPA is proposing to allow multiple options for demonstrating that there are no detectable methane emissions from CVS. Additionally, the EPA is proposing to allow either a PE or an in-house engineer with expertise on the design and operation of the CVS to certify the design and operation will meet the requirement to route all vapors to the control device or back to the process.

The methane standards in the 2016 NSPS OOOOa require that CVS be operated with no detectable emissions, as demonstrated through specific monitoring requirements associated with the specific affected facilities (i.e., pneumatic pumps, centrifugal compressors, reciprocating compressors, and storage vessels). Relevant here, the 2016 NSPS OOOOa required this demonstration for both VOC and methane emissions through annual inspections using EPA Method 21 for CVS associated with pneumatic pumps, while requiring storage vessels to conduct monthly audio, visual, olfactory (AVO) monitoring. The 2020 Technical Rule amended the VOC requirements for CVS for pneumatic pumps to align the requirements for pneumatic pumps and storage vessels by incorporating provisions allowing the option to demonstrate the pneumatic pump CVS is operated with no detectable emissions by either an annual inspection using EPA Method 21, monthly AVO monitoring, or OGI monitoring at the frequencies specified for fugitive emissions monitoring. The EPA is proposing to amend the methane standards to allow pneumatic pump affected facilities to permit these same options to demonstrate no detectable methane emissions from CVS either using annual Method 21 monitoring, as currently required by the 2016 NSPS OOOOa, or using either monthly AVO monitoring or OGI monitoring at the fugitive monitoring frequency.

3. Fugitive Emissions at Well Sites and Compressor Stations

a. Well Sites

The EPA is proposing to exclude from fugitive emissions monitoring a well site that is or later becomes a "wellhead only well site," which the 2020 Technical Rule defines as "a well site that contains one or more wellheads and no major production and processing equipment." The 2016 NSPS OOOOa excludes well sites that contain only one or more wellheads from the fugitive emissions requirements because fugitive emissions at such well sites are extremely low. 80 FR 56611. As explained in that rulemaking, "[s]ome well sites, especially in areas with very dry gas or where centralized gathering facilities are used, consist only of one or more wellheads, or 'Christmas trees,' and have no ancillary equipment such as storage vessels, closed vent systems, control devices, compressors, separators and pneumatic controllers. Because the magnitude of fugitive emissions depends on how many of each type of component (e.g., valves, connectors, and pumps) are present, fugitive emissions from these well sites are extremely low." 80 FR 56611. The 2020 Technical Rule defined "major production and processing equipment" as including

reciprocating or centrifugal compressors, glycol dehydrators, heater/treaters, separators, and storage vessels collecting crude oil, condensate, intermediate hydrocarbon liquids, or produced water. The EPA continues to support an exemption for well sites that do not have this major production and processing equipment. The 2020 Technical Rule allows certain small ancillary equipment, such as chemical injection pumps, pneumatic controllers used to control well emergency shutdown valves, and pumpjacks, that are associated with, or attached to, the wellhead and “Christmas tree” to remain at a “wellhead only well site” without being subject to the fugitive emissions monitoring requirements because they have very few fugitive emissions components that would leak, and therefore have limited potential for fugitive emissions. The emission reduction benefits of continuing monitoring at that point would be relatively low, and thus would not be cost-effective.

For the reason stated above, the EPA is proposing to amend the 2016 NSPS OOOOa to allow monitoring of methane fugitive emissions to stop when a wellsite contains only wellhead(s) and no major production and processing equipment, as provided in the 2020 Technical Rule.

b. Compressor Stations

As discussed above, the 2016 NSPS OOOOa required quarterly monitoring of compressor stations for both VOC and methane emissions, and it also permitted waiver from one quarterly monitoring event when the average temperature is below 0 °F for two consecutive months because it is technically infeasible for the OGI camera (and EPA Method 21 instruments) to operate below this temperature. After the 2020 Policy Rule rescinded the methane standards, the 2020 Technical Rule reduced the monitoring requirements for the VOC standards to require only semiannual monitoring and, in doing so, removed the waiver. Upon enactment of the CRA resolution, compressor stations again became subject to quarterly monitoring pursuant to the reinstated 2016 NSPS OOOOa methane standards, and the waiver as it applied to the methane standards was also reinstated. Consistent with our proposal to align the monitoring requirements for VOCs with the monitoring requirements for methane, the EPA is also proposing to reinstate the waiver for the VOC standards as specified in the 2016 NSPS OOOOa.

c. Modification

The 2016 NSPS OOOOa, as originally promulgated, provided that “[f]or purposes of the fugitive emissions standards at 40 CFR 60.5397a, [a] well site also means a separate tank battery surface site collecting crude oil, condensate, intermediate hydrocarbon liquids, or produced water from wells not located at the well site (e.g., centralized tank batteries).” 40 CFR 60.5430a. However, the original 2016 NSPS OOOOa defined “modification” only with respect to a well site and was silent on what constitutes modification to a well site that is a separate tank battery surface site. Specifically, 40 CFR 60.5365a(i), as promulgated in 2016, specified that, for the purposes of fugitive emissions components at a well site, a modification occurs when (1) a new well is drilled at an existing well site, (2) a well is hydraulically fractured at an existing well site, or (3) a well is hydraulically refractured at an existing well site. See 40 CFR 60.5365a(i).

Because this provision was silent on when modification occurs at a well site that is a separate tank battery surface site, the 2020 Technical Rule added language to clarify that a modification of a well site that is a separate tank battery surface site occurs when (1) any of the actions listed above for well sites occurs at an existing separate tank battery surface site, (2) a well modified as described above sends production to an existing separate tank battery surface site, or (3) a well site subject to the fugitive emissions requirements removes all major production and processing equipment such that it becomes a wellhead-only well site and sends production to an existing separate tank battery surface site. Because the 2020 Technical Rule amended only the VOC standards in the 2016 NSPS OOOOa, and since this definition of modification equally applies to fugitive methane emissions from a separate tank battery surface site, the EPA is proposing to apply this definition of modification for purposes of determining when modification occurs at a separate tank battery surface site triggering the methane standards for fugitive emissions at well sites.

d. Initial Monitoring for Well Sites and Compressor Stations

The 2016 NSPS OOOOa, as originally promulgated, had required monitoring of methane and VOC fugitive emissions at well sites and compressor stations to begin within 60 days of startup (of production in the case of well sites) or modification. The 2020 Technical Rule extended this time frame to 90 days for well sites and gathering and

boosting compressor stations in response to comments stating that well sites and compressor stations do not achieve normal operating conditions within the first 60 days of startup and suggesting that the EPA allow 90 days to 180 days. The EPA agreed that additional time to allow the well site or compressor station to reach normal operating conditions is warranted, considering the purpose of the initial monitoring is to identify any issues associated with installation and startup of the well site or compressor station. By providing sufficient time to allow owners and operators to conduct the initial monitoring survey during normal operating conditions, the EPA expects that there will be more opportunity to identify and repair sources of fugitive emissions, whereas a partially operating site may result in missed emissions that remain unrepaired for a longer period of time. 85 FR 57406. These same reasons apply regardless of pollutant or the location of the compressor station; therefore, the EPA is proposing to further amend the 2016 NSPS OOOOa to extend the deadline for conducting initial monitoring from 60 to 90 days for monitoring both VOC and methane fugitive emissions at all well sites and compressor stations.

e. Repair Requirements

The 2020 Technical Rule made certain amendments to the 2016 NSPS OOOOa repair requirements associated with monitoring of fugitive VOC emissions at well sites and gathering and boosting compressor stations. For the same reasons provided in the 2020 Technical Rule and reiterated below, the EPA is proposing to similarly amend the 2016 NSPS OOOOa repair requirements associated with monitoring of methane emissions at well sites and gathering and boosting compressor stations and monitoring of VOC and methane fugitive emissions at compressor stations in the transmission and storage segment.

Specifically, the EPA is proposing to require a first attempt at repair within 30 days of identifying fugitive emissions and final repair, including the resurvey to verify repair, within 30 days of the first attempt at repair. The 2016 NSPS OOOOa, as originally promulgated, required repair within 30 days of identifying fugitive emissions and a resurvey to verify that the repair was successful within 30 days of the repair. In the 2020 Technical Rule, the EPA clarified that repairs should be verified as successful prior to the repair deadline and added definitions for the terms “first attempt at repair” and “repaired.” Specifically, the definition of “repaired” includes the verification of successful repair through a resurvey of the fugitive emissions component. The EPA is similarly proposing to apply these amendments to the repair requirements made in the 2020 Technical Rule to the repair requirements associated with monitoring of methane emissions at well sites and gathering and boosting compressor stations as well as monitoring of VOC and methane fugitive emissions at compressor stations in the transmission and storage segment and monitoring.

In addition, the EPA is proposing that delayed repairs be completed during the “next scheduled compressor station shutdown for maintenance, scheduled well shutdown, scheduled well shut-in, after a scheduled vent blowdown, or within 2 years, whichever is earliest.” The proposed amendment would clarify that completion of delayed repairs is required during scheduled shutdown for maintenance, and not just any shutdown.

In 2018 NSPS OOOOa Rule the EPA amended the 2016 NSPS OOOOa to specify that, where the repair of a fugitive emissions component is “technically infeasible, would require a vent blowdown, a compressor station shutdown, a well shutdown or well shut-in, or would be unsafe to repair during operation of the unit, the repair must be completed during the next scheduled compressor station shutdown, well shutdown, well shut-in, after a planned vent blowdown, or within 2 years, whichever is earlier.” The EPA agrees that requiring the completion of delayed repairs only during those scheduled compressor station shutdowns where maintenance activities are scheduled is reasonable and anticipates that these maintenance shutdowns occur on a regular schedule. Accordingly, in the 2020 Technical Rule the EPA further amended this provision by adding the term “for maintenance” to clarify that repair must be completed during the “next scheduled compressor station shutdown for maintenance” or other specified scheduled events, or within 2 years, whichever is the earliest. For the same reason, the EPA is proposing the same clarifying amendment to the delay of repair requirements for fugitive methane emissions at well sites and gathering and boosting compressor stations and fugitive VOC and methane fugitive emissions at compressor stations in the transmission and storage segment.

f. Definitions Related to Fugitive Emissions at Well Sites and Compressor Stations

The 2020 Technical Rule made certain amendments to the definition of a well site and the definition for startup of production as they relate to fugitive VOC emissions requirements at well sites. For the same reasons provided in the

2020 Technical Rule and reiterated below, the EPA is proposing to similarly amend these definitions as they relate to the fugitive methane emissions requirements at well sites.

The 2020 Technical Rule amended the definition of well site, for purposes of VOC fugitive emissions monitoring, to exclude equipment owned by third parties and oilfield solid waste and wastewater disposal wells. The amended definition for “well site” excludes third party equipment from the fugitive emissions requirements by excluding “the flange immediately upstream of the custody meter assembly and equipment, including fugitive emissions components located downstream of this flange.” To clarify this exclusion, the 2020 Technical Rule defines “custody meter” as “the meter where natural gas or hydrocarbon liquids are measured for sales, transfers, and/or royalty determination,” and the “custody meter assembly” as “an assembly of fugitive emissions components, including the custody meter, valves, flanges, and connectors necessary for the proper operation of the custody meter.” This exclusion was added for several reasons, including consideration that owners and operators may not have access or authority to repair this third-party equipment and because the custody meter “is used effectively as the cash register for the well site and provides a clear separation for the equipment associated with production of the well site, and the equipment associated with putting the gas into the gas gathering system.” 83 FR 52077 (October 15, 2018).

The definition of a well site was also amended in the 2020 Technical Rule to exclude Underground Injection Control (UIC) Class I oilfield disposal wells and UIC Class II oilfield wastewater disposal wells. The EPA had proposed to exclude UIC Class II oilfield wastewater disposal wells because of our understanding that they have negligible fugitive VOC and methane emissions. 83 FR 52077. Comments received on the 2020 Technical rulemaking effort further suggested, and the EPA agreed, that we also should exclude UIC Class I oilfield disposal wells because of their low VOC and methane emissions. Both types of disposal wells are permitted through UIC programs under the Safe Drinking Water Act for protection of underground sources of drinking water. For consistency, the 2020 Technical Rule adopted the definitions for UIC Class I oil field disposal wells and UIC Class II oilfield wastewater disposal wells under the Safe Drinking Water Act definitions in excluding them from the definition of a well site in the 2016 NSPS OOOOa. Specifically, the 2020 Technical Rule defined a UIC Class I oilfield disposal well as “a well with a UIC Class I permit that meets the definition in 40 CFR 144.6(a)(2) and receives eligible fluids from oil and natural gas exploration and production operations.” Additionally, the 2020 Technical Rule defines a UIC Class II oilfield wastewater disposal well as “a well with a UIC Class II permit where wastewater resulting from oil and natural gas production operations is injected into underground porous rock formations not productive of oil or gas, and sealed above and below by unbroken, impermeable strata.” As amended, UIC Class I and UIC Class II disposal wells are not considered well sites for the purposes of VOC fugitive emissions requirements. Because the 2020 Technical Rule, as finalized, addressed only VOC emissions in the production and processing segment, the EPA is proposing the same exclusion and definition of “well site” for the purposes of fugitive emissions monitoring of methane emissions at well sites.

The EPA is also proposing to apply the definition for “startup of production” for purposes of well site fugitive emissions requirements for VOC to these requirements as they relate to methane. The 2016 NSPS OOOOa initially contained a definition for “startup of production” as it relates to the well completion standards that reduce emissions from hydraulically fractured wells. For that purpose, the term was defined as “the beginning of initial flow following the end of flowback when there is continuous recovery of salable quality gas and separation and recovery of any crude oil, condensate or produced water.” 81 FR 25936 (June 3, 2016). The 2020 Technical Rule amended the definition of “startup of production” to separately define the term as it relates to fugitive VOC emissions requirements at well sites. Specifically, “. . .[f]or the purposes of the fugitive monitoring requirements of 40 CFR 60.5397a, startup of production means the beginning of the continuous recovery of salable quality gas and separation and recovery of any crude oil, condensate or produced water” 85 FR 57459 (September 15, 2020). This separate definition clarifies that fugitive emissions monitoring applies to both conventional and unconventional (hydraulically fractured) wells. For this same reason, the EPA is proposing to apply this same definition of “startup of production” to fugitive emissions monitoring of methane emissions at well sites.

g. Monitoring Plan

The 2016 NSPS OOOOa, as originally promulgated, required that each fugitive emissions monitoring plan include a site map and a defined observation path to ensure that the OGI operator visualizes all of the components that must be monitored during each survey. The 2020 Technical Rule amended this requirement to allow the company to

specify procedures that would meet this same goal of ensuring every component is monitored during each survey. While the site map and observation path are one way to achieve this, other options can also ensure monitoring, such as an inventory or narrative of the location of each fugitive emissions component. The EPA stated in the 2020 Technical Rule that “these company-defined procedures are consistent with other requirements for procedures in the monitoring plan, such as the requirement for procedures for determining the maximum viewing distance and maintaining this viewing distance during a survey.” 85 FR 57416 (September 15, 2020). Because the same monitoring device is used to monitor both methane and VOC emissions, the same company-defined procedures for ensuring each component is monitored are appropriate. Therefore, the EPA is proposing to similarly amend the monitoring plan requirements for methane and for compressor stations to allow company procedures in lieu of a sitemap and an observation path.

4. AMEL

The 2020 Technical Rule made the following amendments to the provisions associated with applications for use of an AMEL for VOC work practice standards for well completions, reciprocating compressors, and the collection of fugitive emissions components located at well sites and gathering and boosting compressor stations. For the same reasons provided in the 2020 Technical Rule and reiterated below, the EPA is proposing to similarly amend the 2016 NSPS OOOOa provisions associated with applications for use of an AMEL for methane work practice standards at well sites and gathering and boosting compressor stations and VOC and methane work practice standards at compressor stations in the transmission and storage segment.

The 2020 Technical Rule amended the AMEL application requirements to help streamline the process for evaluation and possible approval of advanced measurement technologies. The amendments included allowing submission of applications by, among others, owners and operators of affected facilities, manufacturers or vendors of leak detection technologies, or trade associations. The 2020 Technical Rule “allows any person to submit an application for an AMEL under this provision.” 85 FR 57422 (September 15, 2020). However, the 2020 Technical Rule, like the 2016 NSPS OOOOa still requires that the application include sufficient information to demonstrate that the AMEL achieves emission reductions at least equivalent to the work practice standards in the rule. To that end, the 2020 Technical Rule “requires applications for these AMEL to include site-specific information to demonstrate equivalent emissions reductions, as well as site-specific procedures for ensuring continuous compliance.”

At a minimum, the application should include field data that encompass seasonal variations, which may be supplemented with modeling analyses, test data, and/or other documentation. The specific work practice(s), including performance methods, quality assurance, the threshold that triggers action, and the mitigation thresholds are also required as part of the AMEL application. For example, for a technology designed to detect fugitive emissions, information such as the detection criteria that indicate fugitive emissions requiring repair, the time to complete repairs, and any methods used to verify successful repair would be required.

Since the 2020 Technical Rule changes to the AMEL provisions in the 2016 NSPS OOOOa are procedural in the sense that they mostly speak to the “minimum information that must be included in each application in order for the EPA to make a determination of equivalency and, thus, be able to approve an alternative” the EPA believes that it is appropriate to retain those amendments. 85 FR 57422 (September 15, 2020). If finalized, the application must demonstrate equivalence as explained above for both the reduction of methane and VOC emissions. Because the 2020 Technical Rule amended only the VOC standards in the 2016 NSPS OOOOa, and since EPA believes that basis for promulgation of this provision for AMEL applications equally applies to work practices standards for methane emissions at facilities in the production and processing segments and VOC and methane emissions at facilities in the transmission and storage segment, the EPA is proposing to apply these application requirements for all applicants seeking an AMEL for the methane and VOC work practice standards in NSPS OOOOa.

5. Alternative Fugitive Emissions Standards Based on Equivalent State Programs

The EPA recognizes that the determinations of equivalence included in the 2020 Technical Rule were based on the fugitive emissions monitoring requirements that existed at that time for the 2016 NSPS OOOOa which, based on other changes in the 2020 Technical Rule, included an exemption from monitoring for low production well sites and required semiannual monitoring at gathering and boosting compressor stations. As explained above, the EPA is

proposing to repeal both of those changes, and require semiannual monitoring at all well sites, including those with low production, and quarterly monitoring at gathering and boosting compressor stations. These proposed changes to the 2016 NSPS OOOOa fugitive emissions requirements do not impact the EPA's conclusion that the six previously approved alternative State programs are equivalent to the Federal standards. Even so, the EPA is proposing regulatory changes within the alternative State program provisions in 2016 NSPS OOOOa to account for these proposed changes to the Federal standards. See the redline version of regulatory text in the docket at Docket ID No. EPA-HQ-OAR-2021-0317. These changes are intended to ensure that the previously approved alternative State programs continue to maintain equivalency with the Federal standards if NSPS OOOOa is revised as proposed here. With these changes, the EPA continues to find that the alternative State programs that were previously approved are still equivalent with, if not better than, the Federal requirements.

6. Technical Corrections and Clarifications

Revise 40 CFR 60.5385a(a)(1), 60.5410a(c)(1), 60.5415a(c)(1), and 60.5420a(b)(4)(i) and (c)(3)(i) to clarify that hours or months of operation at reciprocating compressor facilities must be measured beginning with the date of initial startup, the effective date of the requirement (August 2, 2016), or the last rod packing replacement, whichever is latest.

4. *Summary of Proposed NSPS OOOOb and EG OOOOc*

a. Fugitive Emissions from Well Sites and Compressor Stations

Definition of Fugitive Emissions Component

A key factor in evaluating how to target fugitive emissions is clearly identifying the emissions of concern and the sources of those emissions. In the 2016 NSPS OOOOa, the EPA defined “fugitive emissions component” as “any component with the potential to emit methane and VOCs” and included several specific component types, ranging from valves and connectors to openings on controlled storage vessels that were not regulated under NSPS OOOOa. Data shows that the universe of components with potential for fugitive emissions is broader than the illustrative list included in the 2016 NSPS OOOOa, and that the majority of the largest emissions events occur from a subset of components that may not have been clearly included in the definition. Therefore, the EPA is proposing a new definition for “fugitive emissions component” to provide clarity that these sources of large emission events are covered. “Fugitive emissions component” is proposed to be any component that has the potential to emit fugitive emissions of methane and VOC at a well site or compressor station, including valves, connectors, PRDs, open-ended lines, flanges, all covers and closed vent systems, all thief hatches or other openings on a controlled storage vessel, compressors, instruments, meters, natural gas-driven pneumatic controllers or natural gas-driven pumps. However, natural gas discharged from natural gas-driven pneumatic controllers or natural gas-driven pumps are not considered fugitive emissions if the device is operating properly and in accordance with manufacturers specifications. Control devices, including flares, with emissions resulting from the device operating in a manner that is not in full compliance with any Federal rule, State rule, or permit, are also considered fugitive emissions components. This proposed definition includes the same components that were included in the 2016 NSPS OOOOa and adds sources of large emissions, such as malfunctioning controllers or control devices.

The inclusion of specific component types in this proposed definition would allow the use of OGI, EPA Method 21, or an alternative screening technology to identify emissions that would either be repaired (i.e., leaks) or have a root cause analysis with corrective action (e.g., malfunctioning control device, unintentional gas carry through, venting from covers and openings on a controlled storage vessel, or malfunctioning natural gas-driven pneumatic controllers). Further, we are proposing that where a CVS is used to route emissions from an affected facility (i.e., centrifugal or reciprocating compressor, pneumatic pump, or storage vessel), the owner or operator would demonstrate there are no detectable emissions from the covers and CVS through the OGI (or EPA Method 21) monitoring conducted during the fugitive emissions survey. Where emissions are detected, corrective actions to complete all necessary repairs as soon as practicable would be required, and the emissions would be considered a potential violation of the no detectable emissions standard. In the case of a malfunction or operational upset of a control device or the equipment itself, where emissions are not expected to occur if the equipment is operating in

compliance with the standards of the rule, this proposal would require the owner or operator to conduct a root cause analysis to determine why the emissions are present, take corrective action to complete all necessary repairs as soon as practicable and prevent reoccurrence of emissions, and report the malfunction or operational upset as a potential violation of the underlying standards for the source of the emissions. We are soliciting comment on whether to include the option to continue utilizing monthly AVO surveys as demonstrations of no detectable emissions from a CVS but are not proposing that option specifically. Because the EPA is proposing both NSPS and EG in this action, we anticipate that CVS associated with controlled pneumatic pumps will be located at well sites subject to fugitive emissions monitoring. Therefore, we do not believe the monthly AVO option is necessary. However, we are soliciting comment on whether there are circumstances where a CVS associated with a controlled pneumatic pump is located at a well site not otherwise subject to fugitive emissions monitoring and where OGI (or EPA Method 21) would be an additional burden.

Fugitive Emissions From Well Sites

The current NSPS for reducing fugitive VOC and methane emissions at well sites requires semiannual monitoring, except that a low production well site (one that produces at or below 15 barrels of oil equivalent (boe) per day) is exempt from VOC monitoring. As explained in section X.A.1, we are proposing to remove that exemption from NSPS OOOOa, as we have concluded that exemption was not justified by the underlying record and does not represent BSER. Further, based on our revised BSER analysis, which is summarized in section XII.A.1.a, the EPA is proposing updated standards for reducing fugitive VOC and methane emissions from the collection of fugitive emissions components located at new, modified, or reconstructed well sites (under the newly proposed NSPS OOOOb). Also, for the reasons discussed in section XII.A.2, the EPA is proposing to determine that the BSER analysis supports a presumptive standard for reducing methane emissions from the collection of fugitive emissions components located at existing well sites (under the newly proposed EG OOOOc) that is the same as what we are proposing for the NSPS (for NSPS OOOOb). Provided below is a summary of the proposed updated NSPS and the proposed EG.

a. NSPS OOOOb

For new, modified, or reconstructed sources, the EPA is proposing a fugitive emissions monitoring and repair program that includes monitoring for fugitive emissions with OGI in accordance with the proposed 40 CFR part 60, appendix K (“appendix K”), which is included in this action and outlines the proposed procedures that must be followed to identify emissions using OGI. They also propose that EPA Method 21 may be used as an alternative to OGI monitoring. We are further proposing that monitoring must begin within 90 days of startup of production (or startup of production after modification).

Unlike in NSPS OOOOa which, as amended by the 2020 Technical Rule, set VOC monitoring frequency based on production level, the EPA is proposing that the OGI monitoring frequency be based on the site-level methane baseline emissions, as determined, in part, through equipment/component count emission factors. The EPA is proposing the calculation of the total site-wide methane emissions, including fugitive emissions from components, emissions from natural gas-driven pneumatic controllers, natural gas-driven pneumatic pumps, storage vessels, as well as other regulated and non-regulated emission sources. Specifically, we are proposing that owners or operators would calculate the site-level baseline methane emissions using a combination of population-based emission factors and storage vessel emissions. Further, the EPA proposes this calculation would be repeated every time equipment is added to or removed from the site. For each natural gas-driven pneumatic pump, continuous bleed natural gas-driven pneumatic controller, and intermittent bleed natural gas-driven pneumatic controller located at the well site, the owner or operator would apply the population emission factors for all components found in Table W-1A of GHGRP subpart W. For each piece of major production and processing equipment and each wellhead located at the well site, the owner or operator would first apply the default average component counts for major equipment found in Table W-1B and Table W-1C of GHGRP subpart W, and then apply the component-type emission factors for the population of valves, connectors, open-ended lines, and PRVs found in Table 2-8 of the 1995 Emissions Protocol.

Finally, the owner or operator would use the calculated potential methane emissions after applying control (if applicable) for each storage vessel tank battery located at the well site. The sum of the emissions estimated for all equipment at the site would be used as the baseline methane emissions for determining the applicable monitoring frequency. The EPA proposes to use the default population emission factors found in Table W-1A of GHGRP subpart W and the default average component counts for major equipment found in Tables W-1B and W-1C of GHGRP subpart W because they are well-validated emission and activity factors used by the Agency. The EPA is not incorporating these emission factors directly into the proposed NSPS OOOOb or EG OOOOc because they could be the subject of future GHGRP subpart W revisions, and if revised, those revisions would be relevant to this calculation. For the individual components (e.g., valves and connectors), the EPA proposes to rely on the component-type emission factors found in Table 2-8 of the 1995 Emissions Protocol for purposes of quantifying emissions from major production and processing equipment and each wellhead located at the well site because these data have been relied upon in previous rulemakings for this sector, have been the subject of extensive public comment, and the EPA has determined that they are appropriate to use for purposes of this action.

Variables that could potentially change the outcome of this rule or the future:

Appropriateness of the proposed methodologies for calculating site-level baseline methane emissions for these emission sources, and if not, what methodologies would be more appropriate.

The proposed calculation methodology assumes all equipment is operating as designed, therefore the development of a factor that could be applied to the site-level baseline calculation accounting for large emission events, or any specific data that would provide a factor for these events may eventually apply

Potential inclusion of direct major equipment population emission factors that can be combined with site-specific gas compositions leading to a more transparent and less burdensome means to develop the site-specific emissions estimates than using a combination of major equipment counts, specific component counts per major equipment, and component-level population emission factors

Possible transition to site-level baseline methane emissions being determined using a baseline emissions survey instead of the proposed methodology,

The EPA acknowledges that the 2016 NSPS OOOOa and this proposal allow the use of EPA Method 21 as an alternative to OGI monitoring to detect fugitive emissions from the collection of fugitive emissions components under the proposed tiered approach to monitoring. However, as discussed in section XI.A.5, EPA Method 21 is not proposed as an alternative for follow-up OGI surveys under the proposed alternative screening approach using advanced measurement technologies when screening detects emissions. This is because EPA Method 21 is not able to find all sources of leaks and is therefore not an appropriate method for detection in these cases where large emissions events have been identified. Given this limitation, the EPA is soliciting comment on whether EPA Method 21 remains an appropriate alternative to OGI for routine OGI surveys.

Table 13—Proposed Well Site Monitoring Frequencies Based on Site-Level Baseline Methane Emissions

Site-level baseline methane emissions threshold	Proposed OGI monitoring frequency	Co-proposed OGI monitoring frequency
>0 and <3 tpy	No routine monitoring required	No routine monitoring required.
≥3 and <8 tpy	Quarterly	Semiannual.
≥8 tpy	Quarterly	Quarterly.

b. EG OOOOc

For existing well sites (for EG OOOOc), it proposed to use presumptive standards that follow the same fugitive monitoring and repair program as for new sources because the BSER analysis for existing sources supports proposing a presumptive standard for reducing methane emissions from the collection of fugitive emissions components located at existing well sites that is the same as what the EPA is proposing for new, reconstructed, or modified sources (for NSPS OOOOb). The EPA did not identify any factors specific to existing sources that would alter the analysis performed for new sources to make that analysis different for existing well sites. The EPA determined that the OGI technology, methane emission reductions, costs, and cost effectiveness discussed above for the collection of fugitive emissions components at new well sites are also applicable for the collection of fugitive emissions components at existing well sites. Further, the fugitive emissions requirements do not require the installation of controls on existing equipment or the retrofit of equipment, which can generally be an additional factor for consideration when determining the BSER for existing sources. Therefore, the EPA found is appropriate to use the analysis developed for the proposed NSPS OOOOb to also develop the BSER and proposed presumptive standards for the EG OOOOc.

Fugitive Emissions from Compressor Stations

The current NSPS for reducing fugitive emissions from the collection of fugitive emissions components located at a compressor station is a fugitive emissions monitoring and repair program requiring quarterly OGI monitoring. The EPA is proposing quarterly OGI monitoring requirement for both methane and VOC as it continues to reflect the BSER for reducing both emissions from fugitive components at new, modified, and reconstructed compressor stations. Likewise, the EPA is also proposing quarterly monitoring as a presumptive GHG standard (in the form of limitation on methane emissions) for the collection of fugitive emissions components located at existing compressor stations. The affected compressor stations include gathering and boosting, transmission, and storage compressor stations.

a. NSPS OOOOb

The EPA proposes the quarterly monitoring using OGI be conducted in accordance with the proposed appendix K which outlines procedures that must be followed to identify leaks using OGI. Ultimately retaining the current requirements that monitoring must begin within 90 days of startup of the station (or startup after modification), with subsequent quarterly monitoring occurring at least 60 days apart. Also, quarterly monitoring may be waived when temperatures are below 0 °F for two of three consecutive calendar months of a quarterly monitoring period. We are also not proposing any change to the following repair-related requirements: Specifically, a first attempt at repair must be made within 30 days of detecting the fugitive emissions, with final repair, including resurvey to verify repair, completed within 30 days after the first attempt. In addition, owners and operators must develop a fugitive emissions monitoring plan that covers all the applicable requirements for the collection of fugitive emissions components located at a compressor station. In conjunction with the proposed requirement that monitoring be conducted in accordance with the proposed appendix K, we are proposing to require that the monitoring plan also include elements specified in the proposed appendix K when using OGI.

b. EG OOOOc

For existing sources, we are proposing a presumptive standard that includes the same fugitive emissions monitoring and repair program as for new sources.

Variables that could potentially change the outcome of this rule or the future:

Potential for more frequent monitoring

Potential of compressor stations being subcategorized for the NSPS and/or the EG in a supplement proposal . For example, station throughput directly correlates to the operating pressures, equipment counts, and condensate production, which would influence fugitive emissions at the station. Thus leading to subcategorization based on design throughput capacity for the compressor station especially where throughputs cause methane to be minimal.

Update to delayed repairs scheduling (30 extension) due to parts not being readily available to existing sources and must be special ordered and related record keeping requirements.

Development of a tiered scheduling of repairs at compressor stations on severity of the emissions found.

b. Pneumatic Controllers

a. NSPS OOOOb

The current NSPS OOOOa regulates certain continuous bleed natural gas driven pneumatic controllers, but includes different standards based on whether the pneumatic controller is located at an onshore natural gas processing plant. If the pneumatic controller is located at an onshore natural gas processing plant, then the current NSPS requires a zero bleed rate. If the pneumatic controller is located elsewhere, then the current NSPS requires the pneumatic controller to operate at a natural gas bleed rate no greater than 6 scfh. The current NSPS does not regulate intermittent vent natural gas driven pneumatic controllers at any location.

Pneumatic controller standards for NSPS OOOOb will include:

First, in addition to each single natural gas-driven continuous bleed pneumatic controller being an affected facility, the EPA proposes to define each natural gas-driven intermittent vent pneumatic controller as an affected facility. The EPA believes these pneumatic controllers should be covered by NSPS OOOOb because natural gas-driven intermittent devices represent a large majority of the overall population of pneumatic controllers and are responsible for the majority of emissions from these sources. Defining an intermittent vent natural gas-driven pneumatic controller as a pneumatic controller that is not designed to have a continuous bleed rate but is instead designed to only release natural gas to the atmosphere as part of the actuation cycle. This affected facility definition would apply at all sites, including natural gas processing plants.

Second, all controllers (continuous bleed and intermittent vent) must have a VOC and methane emission rate of zero.

The proposed rule does not specify how this emission rate of zero must be achieved, but a variety of viable options are available including the use of pneumatic controllers that are not driven by natural gas such as air-driven pneumatic controllers and electric controllers, as well as natural gas driven controllers that are designed so that there are no emissions, such as self-contained pneumatic controllers.

The EPA is proposing that the definition of an affected facility would be each pneumatic controller that is driven by natural gas and that emits to the atmosphere. As such, pneumatic controllers that are not driven by natural gas would not be affected facilities, and thus would not be subject to the pneumatic controller requirements of NSPS OOOOb.

Similarly, controllers that are driven by natural gas but that do not emit to the atmosphere would also not be affected facilities. In order to demonstrate that a particular pneumatic controller is not an affected facility, owners and operators should maintain documentation to show that such controllers are not natural gas driven such as documentation of the design of the system, and to ensure that they are operated in accordance with the design so that there are no emissions.

In both NSPS OOOO and OOOOa, there is an exemption from the standards in cases where the use of a pneumatic controller affected facility with a bleed rate greater than the applicable standard is required based on functional needs, including but not limited to response time, safety, and positive actuation. The EPA is not maintaining this exemption in the proposed NSPS OOOOb, except for in very limited circumstances. The reasons to allow for an exemption based on functional need in NSPS OOOO and OOOOa were based on the inability of a low-bleed controller to meet the functional requirements of an owner/operator such that a high-bleed controller would be required in certain instances.

b. EG OOOOc

In this action, the EPA is proposing to define designated facilities (existing sources) analogous to the affected facility definitions described above for pneumatic controllers under the NSPS.

c. Reciprocating Compressors

a. NSPS OOOOb

The current NSPS in subpart OOOOa for reducing VOC and methane emissions from reciprocating compressors is to replace the rod packing on or before 26,000 hours of operation or 36 calendar months, or to route emissions from the rod packing to a process through a closed vent system under negative pressure. The affected facility is each reciprocating compressor, with the exception of reciprocating compressors located at well sites. Based on the analysis in section XII.E.1, the proposed BSER for reducing GHGs and VOC from new reciprocating compressors is replacement of the rod packing based on an annual monitoring threshold. Under this proposal for the NSPS, retention, as an alternative, of the option of routing rod packing emissions to a process via a closed vent system under negative pressure remains. In this proposed updated standard, the owner or operator of a reciprocating compressor affected facility would be required to monitor the rod packing emissions annually using a flow measurement. When the measured leak rate exceeds 2 scfm (in pressurized mode), replacement of the rod packing would be required.

As mentioned above, reciprocating compressors that are located at well sites are not affected facilities under the 2016 NSPS OOOOa. The EPA previously excluded them because the cost of control was found unreasonable. 81 FR 35878 (June 3, 2016). The current analysis continues to support this exclusion for a subset of well sites so this proposal for NSPS OOOOb includes that same exclusion for well sites that are not centralized production facilities. The EPA is proposing to apply the proposed standards to reciprocating compressors located at centralized production facilities.

2. EG OOOOc

The EPA is proposing EG that include a presumptive GHG standard (in the form of limitation on methane emissions) for existing reciprocating compressors that is the same as the proposed NSPS, including applying these presumptive standards to reciprocating compressors located at existing centralized tank batteries.

d. Pneumatic Pumps

a. NSPS OOOOb

The current NSPS in subpart OOOOa regulates individual natural gas driven diaphragm pneumatic pumps at well sites and at onshore natural gas processing plants. The current NSPS for a natural gas driven diaphragm pneumatic pump at well sites requires 95 percent control of GHGs and VOCs if there is an existing control device or process on site where emissions can be routed. There are two exceptions to the 95 percent control requirement: (1) The existing control or process achieves less than 95 percent reduction; or (2) it is technically infeasible to route to the existing control device or process. In addition, the current NSPS in OOOOa specifies that boilers and process heaters are not considered control devices and that routing emissions from pneumatic pump discharges to boilers and process heaters is not considered routing to a process. The current NSPS for a natural gas driven diaphragm pneumatic pump at an onshore natural gas processing plant is a natural gas emission rate of zero, based on natural gas as a surrogate for VOC and GHG, the two regulated pollutants.

For NSPS OOOOb, there is an expansion of the applicability of the standard in two ways. The first is by including all natural gas driven diaphragm pumps as affected facilities in the transmission and storage segment in addition to the production and natural gas processing segments. The second is by expanding the affected facility definition to include natural gas driven piston pumps in addition to diaphragm pumps. The proposed definition of an affected facility would continue to exclude lean glycol circulation pumps that rely on energy exchange with the rich glycol from the contractor.

The rule retains current standard for a natural gas driven diaphragm pneumatic pump at well sites because the BSER for reducing VOC and methane emissions from such pumps at a well site continues to be routing to a combustion device or process, but only if the control device or process is already available on site. As before, the current analysis continues to show that it is not cost-effective to require the owner or operator of a pneumatic pump to install a new control device or process onsite to capture emissions solely for this purpose.

There are not any changes to the current standard of zero natural gas emission for natural gas driven diaphragm pneumatic pumps located at onshore natural gas processing plants, other than the expansion of the affected facility definition to include piston pumps.

b. EG OOOOc

The EPA is proposing EG that include presumptive methane standards that are the same as described above for the NSPS OOOOb for existing natural gas driven diaphragm pneumatic pumps located at well sites and all other sites in the production segment (except processing plants) and transmission and storage segment where an existing control device exists. However, unlike the proposed methane standards in NSPS OOOOb for natural gas driven piston pneumatic pumps at sites in the production segment, the proposed presumptive standards under EG OOOOc exclude piston pumps from the 95 percent control requirements. The EPA's proposed emissions guidelines also include a presumptive methane standard for pneumatic pumps located at onshore natural gas processing plants that is the same as the proposed NSPS described above.

e. Centralized Production Facility

The EPA is proposing a new definition for “centralized production facility,” which is one or more permanent storage tanks and all equipment at a single stationary source 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. The EPA is proposing this definition to (1) specify how the fugitive emissions requirement apply to centralized production facilities, (2) specify how exemptions related to 40 CFR part 60, subpart K, Ka, or Kb (“NSPS Kb) may apply, and (3) specify what standards would apply to reciprocating and centrifugal compressors located at these facilities.

First, the EPA is proposing to specify how the fugitive emission requirements apply to centralized production facilities. The 2016 NSPS OOOOa, as originally promulgated, provided that “[f]or purposes of the fugitive emissions standards at 40 CFR 60.5397a, [a] well site also means a separate tank battery surface site collecting crude oil, condensate, intermediate hydrocarbon liquids, or produced water from wells not located at the well site (e.g., centralized tank batteries).” 40 CFR 60.5430a. The inclusion of centralized tank batteries in the definition of well site was used to clarify the boundary of a well site for purposes of the fugitive emissions requirements. Further, in the RTC [210] for the 2016 NSPS OOOOa we stated, “[o]ur intent is to limit the oil and gas production segment up to the point of custody transfer to an oil and natural gas mainline pipeline (including transmission pipelines) or a natural gas processing plant. Therefore, the collection of fugitive emissions components within this boundary are a part of the well site.” The EPA continues to define these facilities as a type of well site but is proposing a separate definition to provide further clarity, especially as it relates to when these facilities are modified, and thus become subject to the fugitive emissions requirements in NSPS OOOOb.

Finally, the EPA is now proposing to define centralized production facilities separately from well sites because the number and size of equipment, particularly reciprocating and centrifugal compressors, is larger than standalone well sites which would not be included in the proposed definition of “centralized production facilities” above. In the 2016 NSPS OOOOa, the EPA exempted reciprocating and centrifugal compressors located at well sites from the applicable compressor standards.

Reciprocating compressors that are located at well sites are not affected facilities under the 2016 NSPS OOOOa. The EPA previously excluded them because we found the cost of control to be unreasonable. 81 FR 35878. However, as mentioned above, the EPA believes the definition of “well site” in NSPS OOOOa may cause confusion regarding whether reciprocating compressors located at centralized production facilities are also exempt from the standards. In our current analysis, described in section XII.E, we find it is appropriate to apply the same emission factors to reciprocating compressors located at centralized production facilities as those used for reciprocating compressors at

gathering and boosting compressor stations. Given the results of that analysis, the EPA is proposing to apply the proposed NSPS OOOOb and presumptive standards in EG OOOOc to reciprocating compressors located at centralized production facilities. The new definition above is intended to apply the results of the EPA's analysis. The new definition is necessary to provide clarity regarding reciprocating compressors to distinguish between these compressors at centralized production facilities where the EPA has determined that the standard should apply, and these compressors at standalone well sites where the EPA has determined that the standard should not apply.