



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2010-0505; FRL-9931-76-OAR]

RIN 2060-AS49

Oil and Natural Gas Sector: Definitions of Low Pressure Gas Well and Storage Vessel

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes amendments to new source performance standards (NSPS) for the Oil and Natural Gas Sector. On March 23, 2015, the Environmental Protection Agency (EPA) re-proposed its definition of "low pressure gas well" for notice and comment to correct a procedural defect with its prior rulemaking that included this definition. The EPA also proposed to amend the NSPS to remove provisions concerning storage vessels connected or installed in parallel and to revise the definition of "storage vessel." This action finalizes the definition of "low pressure gas well" and the amendments to the storage vessel provisions.

DATES: The final rule is effective on **[insert date of publication in the Federal Register]**.

ADDRESSES: The EPA has established a docket for this rulemaking under Docket ID Number EPA-HQ-OAR-2010-0505. All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in [regulations.gov](http://www.regulations.gov) or in hard copy at the EPA Docket Center, EPA WJC West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: For further information on this action, contact Mr. Matthew Witosky, Sector Policies and Programs Division (E143-05), Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number: (919) 541-2865; facsimile number: (919) 541-3470; email address: witosky.matthew@epa.gov. For further information on the EPA's Oil and Natural Gas Sector regulatory program for air, contact

Mr. Bruce Moore, Sector Policies and Programs Division (E143-05), Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number: (919) 541-5460; facsimile number: (919) 541-3470; email address: moore.bruce@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this reconsideration action apply to me?

Categories and entities potentially affected by this action include:

Category	NAICS code¹	Examples of regulated entities
Industry...	211111	Crude Petroleum and Natural Gas Extraction.
	211112	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.

¹ North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, consult either the air permitting authority for the entity or your EPA regional representative as listed in 40 CFR 60.4 (General Provisions).

B. How do I obtain a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this action is available on the World Wide Web (WWW). Following signature by the EPA Administrator, a copy of this proposed action will be posted at the following address:

<http://www.epa.gov/airquality/oilandgas/actions.html>.

C. Judicial Review

Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this final rule is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by **[insert date 60 days after publication in the Federal Register]**. Under section 307(d)(7)(B) of the CAA, only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established in this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce these requirements. Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for us to

convene a proceeding for reconsideration, "[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the EPA, Room 3000, EPA WJC West Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **For Further Information Contact** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW, Washington, DC 20460.

II. Background

A. Low Pressure Gas Wells

On August 23, 2011 (76 FR 52758), the EPA proposed the Oil and Natural Gas Sector NSPS (40 CFR part 60, subpart 0000). Among the elements of the proposed rule were provisions for reduced emission completion (REC), also known as "green completion" of hydraulically fractured gas wells. In the proposal, the EPA solicited comment on situations where conducting a REC would be infeasible. Several commenters highlighted technical issues that prevent the implementation of a REC on what they referred to as "low pressure" gas wells

because of the lack of the necessary reservoir pressure to flow at rates appropriate for the transportation of solids and liquids from a hydraulically fractured gas well completion against additional backpressure which would be caused by the REC equipment. Based on our analysis of the public comments received, we determined that there are certain wells where a REC is technically infeasible because of the characteristics of the reservoir and the well depth that will not allow the flowback to overcome the gathering system pressure due to the additional backpressure imposed by the REC surface equipment.

On August 16, 2012, the EPA published the final NSPS (77 FR 49490). Under the 2012 NSPS, a REC is not required for well completions of low pressure gas wells. Rather, the 2012 final NSPS requires at 40 CFR 60.5375(f) that well completions of low pressure gas wells using hydraulic fracturing meet the requirements for combustion of flowback emissions and to the general duty to safely maximize resource recovery and minimize releases to the atmosphere required under 40 CFR 60.5375(a)(4).

The 2012 NSPS includes a definition of "low pressure gas well" that is based on a mathematical formula that takes into account a well's depth, reservoir pressure, and flow line pressure. Section 60.5430 defines low pressure gas well as "a well with reservoir pressure and vertical well depth such that 0.445 times the reservoir pressure (in psia) minus 0.038 times

the vertical well depth (in feet) minus 67.578 psia is less than the flow line pressure at the sales meter.”

Following publication of the 2012 NSPS, a group of petitioners, led by the Independent Petroleum Association of America (IPAA), representing independent oil and natural gas owners and operators, submitted a joint petition for administrative reconsideration of the rule. The petitioners questioned the technical merits of the low pressure well definition and asserted that the public had not had an opportunity to comment on the definition because it was added in the final rule.¹

On March 24, 2014, the petitioners submitted to the EPA a suggested alternative definition² for consideration. The petitioners' definition is based on the fresh water hydrostatic gradient of 0.433 pounds per square inch per foot (psi/ft). The petitioners assert that this approach is straightforward and has been recognized for many years in the oil and natural gas industry and by governmental agencies and professional organizations. As expressed in the paper submitted by the petitioners, the alternative definition for consideration by the

¹Letter from James D. Elliott, Spilman, Thomas & Battle PLLC, to Lisa P. Jackson, EPA Administrator, October 15, 2012; Petition for Administrative Reconsideration of Final Rule “Oil and Natural Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews,” 77 FR 49490 (August 16, 2012).

²Email from James D. Elliott, Spilman, Thomas & Battle PLLC, to Bruce Moore, EPA, March 24, 2014.

EPA, as stated by the petitioners, would be "a well where the field pressure is less than 0.433 times the vertical depth of the deepest target reservoir and the flow-back period will be less than three days in duration."

On July 17, 2014, the EPA proposed clarifying amendments to the gas well completion provisions of the NSPS. In the July proposal, we re-proposed the definition of "low pressure gas well" for notice and comment. We also discussed the alternative definition provided by the IPAA. Specifically, we expressed concern that the IPAA alternative definition is too simplistic and may not adequately account for the parameters that must be considered when determining whether a REC would be feasible for a given hydraulically fractured gas well. We expressed disagreement with the petitioners' assertion that the EPA definition is too complicated and that it would pose difficulty or hardship for smaller operators. However, we agreed with the petitioners that the public should have been provided an opportunity to comment on the 2012 definition of "low pressure gas well," and we, therefore, re-proposed the 2012 definition for notice and comment. In addition, we solicited comment on the alternative definition suggested by the petitioners.

On August 18, 2014, prior to the close of the public comment period for the July 17, 2014, proposal, the IPAA, on behalf of the independent oil and natural gas owner and operator

petitioners, submitted a comment to the EPA via the email address to the Air and Radiation Docket provided in the proposed rule.

The EPA published final amendments in the **Federal Register** at 79 FR 79018 on December 31, 2014, which finalized the definition of "low pressure gas well" unchanged from the 2012 definition. Subsequent to the December 31, 2014, publication of the final amendments, the EPA became aware that the comment submitted by the IPAA was not made part of the record in the docket and, thus, was not available to be considered by the EPA in its decision-making process prior to finalizing the amendments. On March 23, 2015 (80 FR 15180), the EPA re-proposed the definition of "low pressure gas well", and took comment on IPAA's alternative definition to correct the procedural defect.

B. Storage Vessels Connected in Parallel

In the December 31, 2014, final rule, the EPA finalized amendments to the NSPS to address, among other issues, the affected facility status of storage vessel affected facilities. The final action included amendments related to storage vessels "connected in parallel" or "installed in parallel." As we explained in the final rule preamble (79 FR 79027), "Although we believe it is an unlikely occurrence, we note that, when two or more storage vessels receive liquids in parallel, the total throughput is shared between or among the parallel vessels and,

in turn, this causes the PTE of each vessel to be a fraction of the total PTE." To address such isolated occurrences where storage vessels are installed or connected to reduce the potential to emit (PTE) and, therefore, avoid being subject to 40 CFR part 60, subpart OOOO, we amended the NSPS to address situations in which two or more storage vessels could be installed or connected in parallel which could, in some cases, lower the PTE of the individual storage vessels to levels below the 6 tons per year (tpy) applicability threshold provided in 40 CFR 60.5365(e). Specifically, we amended 40 CFR 60.5365(e)(4) to provide that a storage vessel that is being placed into service, and is connected in parallel with a storage vessel affected facility, is immediately subject to the same requirements as the affected facility with which it is being connected in parallel. We also amended the definitions for "returned to service" and "storage vessel" in 40 CFR 60.5430 to provide that two or more storage vessels connected in parallel are considered equivalent to a single storage vessel with throughput equal to the total throughput of the storage vessels connected in parallel.

Following publication of the December 2014 final rule, we became aware that the terms "connected in parallel" and "installed in parallel" inadvertently included storage vessels beyond those we attempted to address as described above. On February 19, 2015, the Gas Processors Association (GPA)

submitted a petition for administrative reconsideration of the December 31, 2014, amendments. The GPA asserted that "it is quite common for multiple storage vessels to be situated next to each other and connected in parallel. Sometimes the storage vessels are operated in parallel, sometimes they are operated in series, and sometimes they are operated one-at-a-time with the connecting valves closed." The GPA further asserted that this configuration has existed for decades and that "this language potentially has large impacts to how our members evaluate affected facility status." For the reasons discussed above, we proposed to remove the regulatory provisions relative to storage vessels "installed in parallel" or "connected in parallel."

III. Summary of Final Amendments

This section presents a summary of the provisions of the final action with brief explanations where appropriate. In some cases, additional detailed discussions are provided in section IV and V of this preamble, as well as the Response to Comment document. The final amendments include revisions to certain reconsidered aspects of the 2012 NSPS as follows: (1) Definition of "low pressure gas well"; (2) definition of "returned to service"; (3) definition of "storage vessel"; (4) revision of 40 CFR 60.5365(e)(4) to remove the phrases "or is installed in parallel with any storage vessel affected facility," and "or with which it is installed in parallel."

A. Low Pressure Gas Wells

The EPA is finalizing its definition of "low pressure gas well." For the purposes of 40 CFR part 60, subpart OOOO, our definition of low pressure gas well is for a singular purpose - to identify the wells that cannot implement a REC because of a lack of necessary reservoir pressure to flow gas at rates appropriate for the transportation of solids and liquids from a hydraulically fractured gas well against additional backpressure that would be caused by the REC equipment, thereby making a REC infeasible (80 FR 15182).

In response to comments, we are amending the definition of "low pressure gas well" in this final action by changing "vertical depth" to "true vertical depth." This change more accurately reflects our intent when formulating the definition of "low pressure gas well."

B. Storage Vessels Connected in Parallel

The EPA is revising the definition of "storage vessel" to remove references to "connected in parallel" and "installed in parallel" from the current definition, and making associated changes to 40 CFR 60.5365(e)(4). We are not making any changes to the proposed definition of "storage vessel."

IV. Significant Changes Since Proposal

There is only one significant change since proposal, which is to refer to "true vertical depth" (instead of "vertical depth") in the definition of "low pressure gas well." Several commenters took issue that the proposal definition of "low pressure gas well" does not take into account the "true vertical depth" of the well, as the "vertical depth" of the well can overstate actual vertical depth because well bores may not be absolutely vertical. The commenters concluded that measured vertical depth often exceeds the true vertical depth of a well bore. The commenters believe this is an important distinction, especially for directional or horizontal wells, that should be clarified in the definition.

We agree with the commenters that "true vertical depth" is more accurate terminology that better represents our intent. In light of the above considerations, we are amending the definition of "low pressure gas well" in this action by changing "vertical depth" to "true vertical depth."

V. Summary of Significant Comments and Responses

This section summarizes the significant comments on our proposed amendments and our responses.

A. Definition of "Low Pressure Gas Well"

Comment: One commenter noted that the EPA's defense of the low pressure well definition focuses on the level of burden the definition imposes on the industry. The commenter contended that

the EPA is missing the point with this response. The commenter contended that their concern is not the hardship imposed by the calculation required by the definition but rather that the definition does not accurately depict what historically has been considered to be a low pressure gas well. Thus, according to the commenter, the current definition would require RECs to be performed on marginally cost-effective wells.

Response: In the 2012 rulemaking, EPA concluded that the BSER for well completion was a combination of REC and combustion; however, in response to comment that REC is not technically feasible for "low pressure gas wells" due to the inability of such wells to attain a gas velocity sufficient to clean up the well when flowing against the backpressure imposed by the surface equipment and the flow line pressure, the EPA exempted "low pressure gas wells" from REC in the 2012 NSPS. The EPA subsequently re-proposed its "low pressure gas well" definition in response to an administrative petition that notice or an opportunity to comment was not provided for the EPA's 2012 definition of "low pressure gas well." However, rather than commenting on parameters for defining "technical infeasibility" to implement REC, the commenter asks the EPA to consider other burdens and hardships in defining "low pressure wells." In the 2015 re-proposal of the "low pressure gas well" definition, the EPA did not propose or otherwise contempt exempting well

completions from performing REC for reasons beyond technical infeasibility. This request is thus beyond the purpose and scope of this re-proposal, which is to provide a low pressure well definition that would accurately describe wells for which REC is technically infeasible due to low pressure and, therefore, exempt from the REC requirements under 40 CFR part 60, subpart 0000.

Comment: Several commenters expressed support for the alternative definition of "low pressure gas well" provided by IPAA as being more representative of current industry practice of defining these wells.

According to one commenter, the alternative definition is based on the fresh water gradient, is widely used in industry, and appropriately describes the well conditions where installation of REC equipment is impractical. The commenter stated that the fresh water gradient (i.e., 0.433 psi/ft or $8.33 \text{ pounds(lbs)/gallon (gal) x } 0.052 \text{ x True Vertical Depth (TVD)}$) represents normally pressured wells based on the hydrostatic overhead pressure of fresh water that increases linearly with TVD. If reservoir pressure is less than the hydrostatic pressure of water, the well will not flow on its own because of the overhead pressure of fracture fluids in the wellbore that will be higher than the reservoir pressure which may make REC equipment impractical. The commenter added that whether a well's

productive reservoir pressure is above or below the water gradient may be readily confirmed by reading offset reservoir pressure data in the development field or by evaluating certain wireline well logs that may be run after drilling a well before well completion begins.

Another commenter stated that the EPA's current definition does not accurately define what industry has historically defined and recognized as a low pressure well. According to the commenter, because EPA's definition does not accurately delineate low pressure wells, the current definition will subject a subset of wells to RECs where the operation of a separator is not physically possible, thereby making the wells uneconomical as a result of being subject to REC requirements. The commenter included a table showing the values calculated using the EPA's definition for various well depths and flow line pressures. According to the commenter, the alternate definition would classify all of the values in the table as a low pressure well, while the EPA's definition would only consider about a quarter of the wells as low pressure.

The commenter further stated that the permeability of the reservoir and other reservoir characteristics play a critical role in determining when a well is low pressure well or under-pressured. In addition to overcoming the hydrostatic pressure and sale line pressure, the separator necessary for the REC adds

to the pressure which must be overcome for gas to flow from the reservoir. The commenter stated that the separator pressure is arguably the controlling parameter on when a REC is feasible versus the sales line pressure. Unlike the sales line pressure, which is easily known, the commenter contended that the separator pressure can vary greatly depending on gas and liquid rates, liquid composition, and equipment limitations. The commenter pointed out that the EPA's definition does not take separator pressure into account, thereby making the definition overly conservative. The commenter admitted that the alternative definition does not contain an adjustment for separator pressure either, but the definition is more accurate and is inclusive of wells recognized by the industry as "low pressure."

In addition to the pressure associated with the separator, the commenter stated that in order for a separator to function, there must be a sufficient volume of gas (at appropriate pressure) to lift the associated liquids and overcome the pressure of the separator. The commenter added that if that gas rate is not achieved, the well will load up and a REC will not be possible. According to the commenter, the gas rate necessary for a REC varies based on reservoir pressure and casing/tubing diameter. The commenter provided a graph of Coleman curves to illustrate this point, which illustrates that as the pressure and casing diameter increase, so must the gas rate.

Response: The EPA believes that the alternative definition of "low pressure gas well," based only on fresh water gradient, may not adequately account for the parameters that must be taken into account when determining whether a REC would be feasible for a given hydraulically fractured gas well. We believe that, to determine whether the flowback gas has sufficient pressure to flow into a flow line, it is necessary to account for reservoir pressure, well depth, and flow line pressure. In addition, it is important for any such determination to take into account pressure losses in the surface equipment used to perform the REC. The EPA's definition in the proposed rule was developed to account for these factors.

The EPA agrees that there must be a sufficient volumetric flow of gas (caused by adequate reservoir pressure) to lift the associated liquids and overcome the pressure of the separator, enabling the gas to be collected (i.e., enter the flow line). However, the EPA disagrees that the current definition, which we re-proposed for notice and comment, does not take into account the additional backpressure caused by the REC equipment, including a separator. The model uses an energy balance to determine the pressure drop based on the calculated velocity, and then the model accounts for pressure losses caused by REC equipment, including the separator. The result of the model is a prediction of the pressure of the flowback gas immediately

before it enters the flow line. The result can be compared to the actual flow line pressure available to the well. For wells with insufficient pressure to produce into the flow line, as predicted using the EPA equation, combustion must be used to control emissions. For wells with sufficient pressure to produce into the flow line, gas capture in combination with combustion must be used to control emissions.

According to some of the commenters, the EPA's definition of low pressure gas well should be revised because it does not comport with what the industry has historically considered to be a low pressure gas well. We are not making a determination on the similarity of the two definitions because we do not believe that the two must be the same for purposes of the Oil and Gas NSPS. The EPA has provided a definition of "low pressure gas well" in the NSPS in order to designate a class of wells where a REC is not technically feasible. Our definition of "low pressure gas well" in the NSPS is for a singular purpose - to identify the wells that cannot implement a REC because of a lack of necessary reservoir pressure to flow gas at rates appropriate for the transportation of solids and liquids from a hydraulically fractured gas well during flowback against additional backpressure which would be caused by the REC equipment, thereby making a REC technically infeasible (80 FR 15182). To the extent that the industry definition is different

from the EPA definition, the industry likely defines a particular well as being low pressure for a variety of reasons.³ As such, it is not clear that a REC is not technically infeasible for all of the wells that the industry has historically considered to be "low pressure wells."

B. Revisions to the Alternate Definition

Comment: One commenter stated that the alternative definition should also be clarified to state "where field reservoir pressure is less than 0.433 times the true vertical depth of the reservoir." According to the commenter, referring to reservoir pressure adds clarity and true vertical depth is a well-known standard term in the industry to differentiate from "measured depth," where measured depth is the length of the well. The commenters stated this is an important distinction, especially for directional or horizontal wells, that should be clarified in the low pressure well definition.

Another commenter similarly suggested that instead of defining the term "low pressure gas well" in terms of the "vertical depth" of the deepest target reservoir, it should instead be defined in terms of the "true vertical depth." The

³ "USEPA's proposed low pressure well definition forces controls on a segment of the industry that have no or minimal beneficial impact on the environment while imposing significant additional costs that will make drilling and operating such wells uneconomical." (James Elliott, Spilman Thomas & Battle, PLLC, on behalf of Independent Petroleum Association of America et al., August 8, 2014)

commenter cited to the Schlumberger online Oil Field Glossary, which defines "true vertical depth" as follows:

The vertical distance from a point in the well (usually the current or final depth) to a point at the surface, usually the elevation of the rotary kelly bushing (RKB). This is one of two primary depth measurements used by the drillers, the other being measured depth. TVD is important in determining bottomhole pressures, which are caused in part by the hydrostatic head of fluid in the wellbore. For this calculation, measured depth is irrelevant and TVD must be used. For most other operations, the driller is interested in the length of the hole or how much pipe will fit into the hole. For those measurements, measured depth, not TVD, is used. While the drilling crew should be careful to designate which measurement they are referring to, if no designation is used, they are usually referring to measured depth. Note that measured depth, due to intentional or unintentional curves in the wellbore, is always longer than true vertical depth.

The commenter stated that it would be better to use "true vertical depth" because the measured vertical depth can overstate actual vertical depth because well bores may not be absolutely vertical. Thus, measured vertical depth often exceeds the true vertical depth of a well bore.

One commenter stated that the IPAA's proposed definition for "low pressure well" was based on the weight of fresh water (8.33 lbs/gal) which is stacked on top of itself, and is known as hydrostatic pressure. Converting the density of fresh water to a pressure gradient results in 8.33 lb/gal being equal to 0.433 psi/ft. Therefore, the pressure of fresh water in the well bore is 0.433 psi/ft times the vertical well depth.

The commenter added that in reality, the fluid flowing to the surface could be fresh water, re-used hydraulic fracturing water, re-used, produced water, or a mixture. Additionally, in the beginning of the operation, the commenter stated that initial fluids flowing to the surface are essentially the fracturing fluids put down hole. At the end of the operation, the fluids flowing to the surface will mainly consist of reservoir fluids, and the water will be more of a brine water and not fresh water. The commenter added that brine water has a greater density, and more reservoir pressure will be required to lift the fluid to the surface. The commenter contended that the use of a fresh water gradient of 0.433 psi/ft should be used to keep the definition conservative and simple.

As an alternative, or in addition, to a fresh water gradient, the commenter recommended that the density of brine water influenced by sand or proppant should be used to more

accurately reflect the pressure of the water column in the well bore. The commenter pointed out that the EPA appears to have utilized a gradient of 0.4645 psi/ft in the "Lessons Learned from Natural Gas STAR Partners; Reduced Emissions Completions for Hydraulically Fractured Natural Gas Wells" paper developed as a part of the EPA's Natural Gas STAR Program. The commenter stated that this is evidenced by the gradients listed in Exhibit 5 of the paper. Additionally, to perform a REC, the commenter contended that the downhole reservoir pressure must be sufficient enough to lift the hydraulic fracturing fluid to the surface and through the separation equipment and piping, with the resulting gas still having enough backpressure for it to get into the natural gas gathering line. According to the commenter, to combust flowback emissions the downhole reservoir pressure must be sufficient enough to lift the hydraulic fracturing fluid to the surface and through the separation equipment and piping, with the resulting gas still having enough backpressure to flow to a flare or enclosed combustion device.

To reflect these realities, the commenter proposed that no emission control be required when the following scenario exists:

"A well where the reservoir pressure is less than 0.4645 times the vertical depth of the deepest target reservoir."

At reservoir pressures below this value, the commenter contends that insufficient pressure exists for any gas to flow to a flare, enclosed combustion device or the process. Consequently, the commenter proposes that combustion through a flare or enclosed combustion device be required when the following scenario exists:

"A well where the reservoir pressure is less than 0.4645 times the vertical depth of the deepest target reservoir plus the gathering or sales line pressure."

At reservoir pressures less than the sum of the water column pressure and the sales line pressure, the commenter contended that the recovered gas will not naturally flow into the sales line. The commenter stated that the proposed rule does not require compression of recovered gas into the sales line. The commenter further states that the EPA has recognized this type of simpler approach in estimating the level of pressure necessary for recovered gas to flow into a gathering or sales line in their Gas STAR document cited above. In this Gas STAR paper, a table (Exhibit 5) is provided that shows the pressures necessary for various well depths. For instance, the commenter pointed out that the document indicates that the reservoir pressure necessary to flow recovered gas into a sales line for a 10,000-foot well would be 4,645 psig plus the sales line pressure.

Response: We agree with the commenters that "true vertical depth" is more accurate terminology that better represents our intent. Although we are not adopting the alternative definitions for the reasons presented above, we are amending the current definition of low pressure gas well to include "true vertical depth."

C. Storage Vessel Requirements

Comment: One commenter acknowledged the EPA's proposal to remove provisions relating to storage vessels "installed in parallel" or "connected in parallel" because these provisions "inadvertently" encompassed storage vessels the Agency did not intend to address. However, the commenter contended that the EPA does not identify those vessels that it believes were inadvertently covered in the December 2014 rule, nor does it propose alternative regulatory language that would ensure adequate control measures for vessels connected or installed in parallel that were intended to be covered under the December 2014 rule.

Given that storage vessels, including those installed or connected in parallel, can be significant sources of emissions, the commenter opposed the EPA's proposal to simply remove any provisions addressing these vessels. Instead of removing all provisions regarding vessels installed or connected in parallel, as the Agency proposed, the commenter urged the EPA to instead

clarify its existing requirements for such vessels. The commenter suggested that the EPA could, for instance, clarify that pollution control measures apply to storage vessels operated in parallel in the relevant regulatory provisions addressing storage vessel affected facilities and the definitions of "returned to service" and "storage vessel."

Response: The change to the definition of "storage vessel" is intended to preserve the original basis on individual storage vessels to determine affected facility status, while addressing the potential situation where the flow of crude oil, condensate, intermediate hydrocarbon liquids, or produced water is divided into two or more tanks operated in parallel (i.e., sharing the emissions at the correlated fraction of what a single tank would emit). Through comments submitted on the March 2015 proposed rule, the public has informed us that many storage vessels that are configured in parallel may not be operated or constructed to divide their potential to emit continuously, if ever. The EPA has now reconsidered our attempt to include storage vessels connected in parallel to address the specific situation resulting in circumvention. We believe that we do not have sufficient data to evaluate the scope of storage vessels that would fall under the amended definition and for which we did not intend to cover.

We believe that we have sufficient provisions under the General Provisions at 40 CFR 60.12 "Circumvention" to address the specific situation where storage vessels are divided into smaller tanks to avoid applicability of the rule and which was our intent with the previous amended definition. Therefore, we do not believe that our reverting to the prior definition of "storage vessel" will affect our ability to ensure control of these storage vessels. Consequently, as proposed, we are finalizing the removal of provisions made in the 2014 amendment relating to storage vessels "installed in parallel" or "connected in parallel."

V. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. OMB has previously approved the

information collection requirements contained in the existing regulations and has assigned OMB control number 2060-0673. This action does not change the information collection requirements previously finalized and, as a result, does not impose any additional burden on industry.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. This action is a reconsideration of an existing rule and imposes no new impacts or costs.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action is a reconsideration of an existing rule and imposes no new impacts or costs. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions to Address

Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations because it does not affect the level of protection provided to human health or the environment. This action is a reconsideration of an existing rule and imposes no new impacts or costs.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 60

Administrative practice and procedure, Air pollution control, Environmental protection, Intergovernmental relations, Reporting and recordkeeping.

Dated: July 31, 2015_____.

Gina McCarthy,
Administrator.

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, et seq.

Subpart 0000—Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution

2. Section 60.5365(e)(4) is revised to read as follows:

§60.5365 Am I subject to this subpart?

* * * * *

(e) * * *

(4) For each new, reconstructed, or modified storage vessel with startup, startup of production, or which is returned to service, affected facility status is determined as follows: If a storage vessel is reconnected to the original source of liquids or is used to replace any storage vessel affected facility, it is a storage vessel affected facility subject to the same requirements as before being removed from service, or applicable to the storage vessel affected facility being replaced, immediately upon startup, startup of production, or return to service.

* * * * *

3. Section 60.5430 is amended by revising the definitions for "Low pressure gas well," "Returned to service," and the first three sentences in the introductory text of "Storage vessel" to read as follows:

§60.5430 What definitions apply to this subpart?

* * * * *

Low pressure gas well means a well with reservoir pressure and vertical well depth such that 0.445 times the reservoir pressure (in psia) minus 0.038 times the true vertical well depth (in feet) minus 67.578 psia is less than the flow line pressure at the sales meter.

* * * * *

Returned to service means that a Group 1 or Group 2 storage vessel affected facility that was removed from service has been:

- (1) Reconnected to the original source of liquids or has been used to replace any storage vessel affected facility; or
- (2) Installed in any location covered by this subpart and introduced with crude oil, condensate, intermediate hydrocarbon liquids or produced water.

* * * * *

Storage vessel means a tank or other vessel that contains an accumulation of crude oil, condensate, intermediate hydrocarbon liquids, or produced water, and that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provide structural support. A well completion vessel that receives recovered liquids from a well after startup of production following flowback for a period which exceeds 60 days is considered a storage vessel under this subpart. A tank

or other vessel shall not be considered a storage vessel if it has been removed from service in accordance with the requirements of §60.5395(f) until such time as such tank or other vessel has been returned to service. ***

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[FR Doc. 2015-19733 Filed: 8/11/2015 08:45 am; Publication Date: 8/12/2015]