



**Submitted via Regulations.gov**

December 17, 2018

United States Environmental Protection Agency  
EPA Docket Center  
Attention: Docket ID No. EPA-HQ-OAR-2017-0483  
1200 Pennsylvania Ave., NW  
Washington, DC 20460

**Re: Comments by GPA Midstream Association on Proposed Rule, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration 83 Fed. Reg. 52056 (October 15, 2018) – Docket ID No. EPA-HQ-OAR-2017-0483**

Dear Docket Clerk:

GPA Midstream Association (GPA Midstream) hereby submits these comments to the U.S. Environmental Protection Agency (EPA) on EPA's Proposed Rule, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration, 83 Fed. Reg. 52056 (October 15, 2018) ("Proposed Rule" or proposal) governing oil and gas operations.

GPA Midstream has served the U.S. energy industry since 1921. GPA Midstream is composed of nearly 100 corporate members of all sizes that are engaged in the gathering and processing of natural gas into merchantable pipeline gas, commonly referred to in the industry as "midstream activities." Such processing includes the removal of impurities from the raw gas stream produced at the wellhead, as well as the extraction for sale of natural gas liquid products (NGLs) such as ethane, propane, butane and natural gasoline. GPA Midstream members account for more than 90 percent of the NGLs produced in the United States from natural gas processing. Our members also operate hundreds of thousands of miles of domestic gas gathering lines and are involved with storing, transporting, and marketing natural gas and NGLs.

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### **Summary**

GPA Midstream supports many aspects of the Proposed Rule, which corrects flaws inherent in the original OOOOa 2016 regulation. However, urges EPA to revise certain of its proposed changes to better reflect the available data and operating practices in the midstream sector. These issues include as follows:

- EPA should reduce monitoring at gathering and boosting compressor stations to annual monitoring. Actual leak frequency data and site component information from the gathering and boosting sector establish that annual monitoring will be more than sufficient – and that more frequent monitoring would not be cost-effective. EPA’s proposal had established the monitoring frequency based on outdated data from other industry sectors that are not comparable to gathering and boosting sector.
- EPA has properly proposed to redefine the “well site” and added definitions for “custody meter” and “custody meter assembly.” These revisions would provide much needed clarity to the regulation, as the existing regulation has created numerous, unnecessary difficulties for midstream operators.
- EPA should adjust how it calculates the maximum average daily throughput to determine potential emissions from storage vessels at gathering and boosting facilities. Given the nature of the operations, to review throughput after the first 30-days is not going to be representative, and as such, instead, facilities should be allowed to use generally accepted engineering models.
- EPA should retain “compressor” horsepower rating as the correct measure for determining when a modification may occur at a compressor station. That is consistent with the plain language in the current OOOOa regulation, which should be retained – and the preamble in support of the final rule clarified, to avoid any unintended ambiguity in how the regulation should be interpreted.
- EPA should extend the time period to complete a leak survey to 180 days after initial startup for the affected fugitive emissions components at compressor stations. Given the way in which operators in fact install, test, and phase-in components at a compressor station, the current 60-day timeline means compressors and associated components are not yet in service and are being missed in the initial survey.

These and further issues are detailed more fully below.

## Comments

### **I. Fugitive Emissions Monitoring at Gathering and Boosting Compressor Stations Should Be Finalized as an Annual Requirement**

EPA has properly reduced the frequency of fugitive emissions monitoring at gathering and boosting (G&B) compressor stations to no more frequent than semi-annual monitoring. However, GPA Midstream believes that the record and additional data clearly support annual monitoring as more than sufficient for G&B compressor stations. Accordingly, GPA Midstream submits the following comments and corrections to the assumptions made in the cost-benefit analysis in support of annual monitoring as the best system of emission reduction (BSER) for both volatile organic compounds (VOC) and methane emissions at G&B compressor stations.<sup>1</sup>

#### **A. In the Final Rule, EPA should reduce the assumed leak frequency rate from 1.18% to 0.24% for the G&B sector.**

In the Final Rule, EPA should reduce the assumed leak frequency for the G&B sector because the data relied on by EPA in the Proposed Rule come from an emission source that is not comparable to G&B compressor stations. Instead, EPA should rely on available, reliable G&B sector-specific data to establish the leak frequency rate.

In Section 2.6.1 of the Background Technical Support Document for the Proposed Reconsideration of the New Source Performance Standards 40 CFR Part 60, Subpart OOOOa (TSD), EPA states that, “1.18% of the fugitive emissions components would be identified as having fugitive emissions.” TSD at 39. This is the assumed baseline initial leak percent at all the G&B sites and as such, equates to emissions that EPA has assumed would be prevented by the OOOOa rule. However, the 1.18% value is not from the G&B sector. Rather, it was obtained from Table 5 of a Memorandum from Cindy Hancy, RTI International, to Jodi Howard, EPA/OAQPS, Subject: Analysis of Emission Reduction Techniques for Equipment Leaks (December 21, 2011) (RTI Memo). See EPA-HQ-OAR-2002-0037-0180. The referenced study was an evaluation of emission reduction techniques for the synthetic organic chemical manufacturing industry (SOCMI) and evaluated small to large chemical manufacturing and refining facilities. According to EPA’s TSD: “The 1.18% value is the baseline leak frequency

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<sup>1</sup> EPA has focused these technical revisions to its OOOOa regulation in response to petitions for reconsideration, including a petition filed by GPA Midstream 83 Fed. Reg. 52060. In providing these comments, GPA Midstream reserves all rights in any proceeding to argue that EPA must complete a separate significant contribution endangerment determination for methane emissions from the oil and natural gas sector before issuing regulations under Section 111 of the Clean Air Act that may regulate methane emissions. Section 111 of the CAA prohibits EPA from regulating a pollutant from a specific source category unless the agency first determines that such emissions “cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7411(b)(1)(A). EPA has not made such an endangerment determination here, as EPA’s prior endangerment determination for the oil and gas sector did not address methane emissions.

for valves in gas/vapor service. None of the other baseline frequencies in this table were used because the equipment are in liquid service (e.g., pumps LL, valve LL, agitators LL).” TSD at 28, n.29.

EPA’s use of numbers from SOCFMI facilities as a baseline for the G&B sector is a wholly inappropriate comparison. While refining and chemical sites tend to be large, manned facilities in more urban areas, compressor stations are small, remote and typically unmanned facilities. SOCFMI facilities are much more operationally complex facilities than G&B compressor stations. If any comparison is to be drawn from other industry segments, G&B is much more like natural gas production than it is to a large SOCFMI facility.

By contrast to the data EPA chose to rely on in the Proposed Rule and supporting TSD, GPA Midstream previously provided sector-specific data to EPA to demonstrate the substantially lower leak frequency observed for the G&B sector. *E.g.*, Company Data – Compressor Station Leak Rates – Final, *available at* EPA-HQ-OAR-2017-0483-0027. To further document that leak the frequency is substantially lower for the G&B sector and that EPA’s proposed comparison to SOCFMI facilities is inappropriate, GPA Midstream has expanded upon the data set that it previously provided to EPA in March 2018. The consolidated data set (provided here at Attachment 1) represents 11 companies and 262 sites across the country.<sup>2</sup> The trend demonstrated by these data is absolutely clear - initial leak percentages start low and remain low – and are well below the 1.18% leak frequency that EPA has assumed and used in the Proposed Rule. Specifically:

Initial Monitoring Frequencies: Across the 11 companies and 262 sites, the average initial leak frequency is 0.24%. The data includes both optical gas imaging (OGI) monitoring and Method 21 (M21) monitoring. When M21 monitored sites are excluded, the initial leak frequency average drops even further to 0.23%. There are only two sites of the 262 that have an initial leak frequency over 1.18%.

Final Frequency: The data also show a clear trend that the leak frequencies start low but reduce further as monitoring continues. Using data from 203 sites, the final leak frequency was 0.17%. Facilities that had not performed at least four quarterly monitoring events were not included in the average. The final leak frequency was obtained by averaging the percentage of total leaking components from the last monitoring event where available.

The data that GPA Midstream has gathered and presented also clearly disputes EPA’s assertion that the nature of the characteristics of the compressor stations may support more

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<sup>2</sup> See GPA Midstream - Attachment 1 - Company Data – Compressor Station Leak Rates – 12-17-2018.

frequent monitoring – because the equipment there “are subject to vibration and temperature cycling.” EPA also points to studies that indicate that component subject to vibration and temperature cycling are most leak prone. 83 Fed. Reg. 52070, n.57. The empirical data gathered by GPA Midstream demonstrates this assertion is not valid given the substantially lower leak rate observed.

Given the low initial and final leak frequencies demonstrated by the data provided, GPA Midstream urges EPA to lower the monitoring frequency to annual for compressor stations. Annual monitoring would still meet EPA’s goal of a low final leak frequency while limiting the burden of unnecessary costs on the industry. In addition, EPA should utilize the data that GPA Midstream and other industry stakeholders have provided, including API, to update the TSD as these industry data are more representative of actual field conditions for the G&B section than the SOCM data relied upon by the Agency.

**B. EPA’s model plant assumption is incorrect and must be updated to reflect the smaller size of G&B sites across the United States.**

In the Final Rule, EPA should revise and update the model plant assumptions to reflect the smaller size of G&B sites. The model plant assumptions are critically important, because the monitoring frequency cost-benefit analysis hinges upon the assumed model plant size found in *Attachment 2 – Proposed Rule OOOOa TSD Section 2 – OGI Compressor Model Plant Costs* that EPA included for stakeholder review in the docket. When the model plant assumptions are updated, the spreadsheet automatically recalculates.<sup>3</sup>

However, EPA did not use G&B sector data in developing the model plant. *See* Section 2.3.1 of the TSD (EPA discusses the basis for the model plant that was used in the cost-benefit analysis). Instead, when determining the model plant for G&B, EPA relied on a report that is over two decade old (1996 EPA/GRI report). TSD § 2.3.1 at 6. As EPA acknowledged in the TSD, the 1996 EPA/GRI report “does not have specific information on major production and processing equipment counts for the gathering and boosting segment.” TSD § 2.3.4 at 15-16. Lacking those data, EPA based all of its model plant information for G&B compressor stations on component counts that were done for compressors in the production segment – again, not the G&B sector. Hence, the data for the model plant are not only outdated - over 20 years old – but not from the G&B industry segment regulated under the OOOOa Rule.

To counter the outdated, inapposite data from the EPA/GRI 1996 report, GPA Midstream has gathered from member companies an inventory of equipment found at current-era G&B

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<sup>3</sup> GPA Midstream has recalculated EPA’s Attachment 2 model plant with the corrections proffered in these comments. An excerpt from GPA Midstream’s proposed model plant is attached to these comments at GPA Midstream’s Attachment 2. A full model plant spreadsheet including the proposed updated data is Attachment 2A.

facilities. GPA Midstream gathered these data, in part, from the publicly available data found in the greenhouse gas (GHG) Subpart W reports for the G&B segment. However, because Subpart W (at 40 CFR Part 98.236(a)(9)) directs operators to report equipment types (separators, meters/piping, gathering compressors, in-line heaters and dehydrators) across a basin, GPA Midstream could not gather a per-site count directly from the reported data.<sup>4</sup>

Accordingly, GPA Midstream solicited member companies to submit facility-level data. Table 1 below lists the comparison between GPA Midstream's model plant and EPA's model plant. EPA asserts that each facility has 11 separators, seven meters/piping, five gathering compressors, seven in-line heaters and five dehydrators. These numbers are not representative of G&B facilities and the data in Attachment 2 should be updated with GPA Midstream's current, G&B-specific data to more accurately reflect the actual rulemaking.

Table 1- Updated Gathering and Boosting Model Plant

| <i>Equipment</i>      | <i>Model Plant (GRI)</i> | <i>GPA Model Plant</i> |
|-----------------------|--------------------------|------------------------|
| Separators            | 11                       | 5                      |
| Meter/Piping          | 7                        | 6                      |
| Gathering Compressors | 5                        | 3                      |
| In-Line Heaters       | 7                        | 1                      |
| Dehydrators           | 5                        | 1                      |

GPA Midstream's model plant numbers are compiled from 8 companies and includes 1,821 sites. Due to the basin-wide reporting required by Subpart W, we observed minor disparities in a handful of the data points for meters. In particular, the basin level reporting requires that companies report all equipment, even equipment outside of a traditional G&B facility boundary, such as meters at production well sites where they gather gas. Hence, some of the rolled up basin data included meters from the production well pads. Depending on the size of the basin and the way in which companies document their inventory, this can mean many reported meters are not within the G&B facility but are included in the basin data set and could not be readily separated out in this analysis. When this was the case, to be conservative in its approach, GPA Midstream used the EPA's assumption of 7 meters/site. However, GPA Midstream believes this to be a conservatively high number.

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<sup>4</sup> GPA Midstream has long advocated for Subpart W reporting for the GHG Reporting Rule to be on a per-facility basis. Had the regulation required equipment to be reported at an individual facility level and not a basin level, the data would have been even more precise in informing this rulemaking.

GPA Midstream's model plant numbers can then be entered directly back into EPA's Attachment 2 analysis. The spreadsheet calculates the number of components per site from which EPA calculates the total emissions per site of methane, VOCs, and Hazardous Air Pollutants (HAPs). These total site emissions assumptions are used to calculate the anticipated controlled emissions and the expected emission reductions from the Proposed Rule. Taking that a step further, EPA further uses these data in turn to calculate the cost/ton of emissions removed, a central if not the central element in evaluating the cost effectiveness of EPA's entire regulatory approach. All of these calculations hinge upon the model plant analysis, and as that model plant is demonstrably incorrect and not a proper model for the G&B sector, so are the subsequent calculations derived from the model.

**C. EPA should not use the cost savings calculations to calculate the cost/benefit analysis in the midstream industry segment.**

EPA should further revise its cost analysis to exclude cost savings calculations from its analysis of the midstream industry. In Section 2.5.1.1 of the TSD EPA states as follows: "Because the gas handled by transmission and storage facilities is not typically owned by these facilities, we do not consider the value of the gas saved as an offset to the cost. However, for gathering and boosting stations, the gas savings could be considered. Therefore, we calculated the cost of control for compressor stations considering the gas savings contributed by gathering and boosting stations." Based on this statement, EPA uses the gas savings model, which is a lower cost/ton to control methane and VOCs, as the primary analysis for the G&B industry. However, EPA's statement is incorrect. Midstream operators do not typically own the gas, they are only paid to transport it from point A to point B. Hence, the gas savings should not be considered for G&B compressor stations.

**D. The average monitoring cost within the TSD is accurate for GPA Midstream's average model plant and should not be adjusted downward.**

EPA has suggested it should adjust the cost for monitoring a facility from \$2,300 down to \$1,200 based on information received from one monitoring company. 83 Fed. Reg. 52070-71.<sup>5</sup> GPA disagrees with this proposed adjustment. In fact, the reduced costs proposed by EPA do not match the actual monitoring costs observed by GPA Midstream member companies and do not include all of the costs associated with monitoring.

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<sup>5</sup> In the Proposed Rule, EPA has chosen to rely most significantly on the single presentation by one monitoring company. NSPS OOOOa Monitoring Case Study Presentation by Terence Trefiak with Target Emission Services (April 6, 2018), EPA-HQ-OAR-2017-0483. GPA Midstream presents actual data from companies having to conduct the monitoring.

To establish this, GPA Midstream collected updated cost information from 6 member companies encompassing 86 facilities which are reflected in Table 2. Costs for these facilities averaged \$2,076 – with the costs ranging from \$450/monitoring event to \$5,700/monitoring event. It is important to note that the facilities that reported a cost of \$450 did not include the costs of reporting the monitoring results and were at facilities close together so travel time and costs for monitoring staff was deemed minimal. Hence, overall, these data support EPA’s original estimate of \$2,300/site per monitoring event and EPA should not adjust those costs downward.

Table 2 – Average Cost of Fugitive Emissions Survey

|           | Facilities | High Cost | Low Cost | average cost | Locations      |
|-----------|------------|-----------|----------|--------------|----------------|
| Company 1 | 38         | \$3,358   | \$1,445  | \$2,088      | OK, East TX    |
| Company 2 | 4          | \$2,500   | \$1,200  | \$1,841      | LA             |
| Company 3 | 31         | \$2,600   | \$450    | \$1,121      | CO, OK, TX, WY |
| Company 4 | 29         | \$ 3,492  | \$ 1,180 | \$2,568      | OH, PA, OK     |
| Company 5 | 3          | \$5,700   | \$5,700  | \$5,700      | UT             |
| Company 6 | 27         | \$3,735   | \$1,245  | \$2,444      | CO             |
| Average   |            |           |          | \$2,076      |                |

**E. EPA Should revise its Attachment 2 – Proposed Rule OOOOa TSD Section 2 – OGI Compressor Model Plant Costs to include additional costs associated with company personnel**

Any full estimate of monitoring costs should include the costs associated with company personnel. Company personnel must also spend time at the facility escorting the monitoring team and conducting the maintenance at the sites to fix the leaks. Because most of these facilities are remote and unmanned, company personnel often must accompany third-party monitoring staff to provide the monitoring company access to the relevant facility. In EPA’s *Attachment 2 – Proposed Rule OOOOa TSD Section 2 – OGI Compressor Model Plant Costs*, EPA “assumes compressor station inspection would take 10.6 hours per survey based on information from the CO Cost-Benefit Analysis.” GPA Midstream therefore submits that EPA should include operations staff costs to escort the monitoring companies in the Agency’s Attachment 2 analysis, as should the additional travel time for company personnel to and from sites. In order to account for this GPA Midstream has added a line into its recalculated Attachment 2 for one operations staff member for 12.6 hours. The labor rates obtained from EPA’s public record assume that operations staff make \$22.72/hour. *See* Table 11 of RTI Memo, *supra*, available at EPA-HQ-OAR-2002-0037-0180. This totals an extra \$286 per monitoring event.



**II. GPA Midstream has serious concerns regarding the proposed requirement that each compressor at an affected G&B facility must be monitored at least once per calendar year while operating. This requirement is not based on reliable data, not reasonable, and not cost effective.**

GPA Midstream understands that EPA relied largely on one presentation from a single monitoring company, Target Services, to justify imposing a requirement to monitor each G&B sector compressor in operating mode at least annually. This is not a credible, robust basis for this requirement. First, the underlying data compiled in the presentation have not been made available for review by EPA or interested stakeholders. To determine if the conclusion EPA has drawn from the data is reasonable, the Target Services' data would require further review such as a statistical analysis of the underlying raw data to determine if there is a statistically significant change in leak rate at a transmission compressor station when a unit or units are or are not operating. In addition, the Target Services data were gathered from transmission compressor stations, which operate very differently than a G&B compressor station. The two different segments not only differ in demand and usage schedules, but also in the size of compression capacity. Transmission compressors are designed to send gas long distances across the county; therefore, more horsepower is usually needed, and the piping is larger, while G&B compressor stations are only compressing the gas to a nearby gas processing plant or transmission pipeline. As such, the underlying data that drove the insertion of this requirement needs to be made available to stakeholders for analysis and further review by interested parties and the Agency. Only if after that additional review EPA still believes this requirement should be considered, EPA should gather additional data from industry and academia to assess the validity of the data and related conclusions.

In addition to the concerns about the data provided in the docket, this newly proposed requirement is not feasible to manage at a gathering and boosting facility, because compressor demand is usually not in the hands of the station operator, but rather due to producer demand for service. G&B compressor stations typically transport gas from the producer well site to a downstream processing plant and/or transmission pipeline. As such, compression capacity demand is largely based on the producer and its activities. For example, a producer could bring more gas online or take it offline anytime based on its drilling schedule or operational issues. This change can be communicated to the G&B operator without much notice. The change in gas volume directly impacts the compressor capacity needed at the downstream compressor station, which in turn changes how many units must be in operation. Another example of the impracticality of this requirement occurs when a producer sends the G&B facility natural gas that doesn't meet quality specifications (*e.g.*, too much water). In these cases, the producer's well pad(s) will have to be shut-in immediately until the problem is corrected. As a result, the associated compression capacity at the G&B compressor station is immediately no longer needed and the units will go offline. In both of these cases, when the G&B company scheduled the

survey with the contractor, it would not have known how many or which units would be called upon to operate during the time of the survey. A third example would be in an area where the field is in decline and gas volumes are reducing over time, a compressor could still be on-site for the scheduled annual survey but will be offline due to lack of demand. Since it is very costly to move a compressor unit, units can remain at a compressor station for months in not operating, depressurized mode. (Moreover, as discussed further below, starting up these compressors will create more emissions than might otherwise be reduced, even if a leak were identified.) These three operating scenarios demonstrate how hard it would be to manage a fugitive emission monitoring program at G&B compressor stations that requires all compressors to be monitored at least once per calendar year in operating mode.

Further, to meet this proposed requirement, there would be additional emissions – likely more than would be reduced, even assuming a leak were identified. Companies would have to pay for contractors to come to its site more often than what is currently evaluated in the cost analysis to catch all of the compressor units in operating mode. The emissions caused by driving back out to the site have not been evaluated in the Proposed Rule to each of the multiple locations. Alternatively, operators would have to startup and shutdown compressors and their associated drivers for the sole purpose of restarting units during a given survey. If a leak is found on a unit that was restarted solely for the leak survey and is not otherwise required for operation of the compressor station, and if the leak could not be repaired immediately, the compressor would then have to be started up and blown down again to confirm that the leak was repaired at a later date. These non-essential unit startup/shutdowns cause additional emissions that also should be considered in any full analysis. For example, a typical G&B compressor engine could emit anywhere from 77 scf to 10,345 scf of gas for each startup and shutdown depending on the compressor size, pressure and number of compression stages. These startup and shutdown emissions are reasonably expected to be significantly greater than any additional leak that could be identified and corrected if the associated compressor was operating.

In view of these issues, GPA Midstream urges EPA not to revise the Rule to include this requirement. In the alternative, at a minimum, EPA should include language that requires monitoring be conducted during “representative operating conditions.” EPA should clearly define “representative operating conditions” as “as found” since the number of units operating at any given time is constantly in flux at a G&B compressor station. EPA should also clarify that “representative operating conditions” does not include times when the entire facility is shut down for scheduled maintenance to address their concern that an operator might conduct a survey during periods of scheduled maintenance. This approach would alleviate the obligation to conduct more surveys than required to catch all units in operating mode or create unnecessary startup/shutdown emissions for the purpose of conducting a leak survey.

**III. GPA Midstream supports EPA's changes to the well site definition and the addition of a definitions for custody meter and custody meter assembly.**

In these proposed technical changes, EPA has proposed a revised definition of well site and adds definitions for custody meter and custody meter assembly. Proposed Rule, 40 C.F.R. § 60.5430a, 83 Fed. Reg. 52105. GPA Midstream fully supports these changes and additions as they provide much needed clarity to the regulation.

GPA Midstream has previous explained in detail why the definition of well site needed to be revised because the OOOOa regulation erroneously encompassed midstream assets in the definition of well site, GPA Midstream also explained why the terms custody meter and custody meter assembly are essential, additional defined terms, now included, correct the previous error. *E.g.*, GPA Midstream New Source Performance Standards Subpart OOOOa Petition for Review, Technical Issues (March 1, 2017) (GPA Midstream White Paper) and related materials, available at EPA Dkt. ID EPA-HQ-OAR-2017-0483-0027.<sup>6</sup> The explanations and supporting materials are referenced here as if set out in full in these comments.

Briefly, EPA's definition of well site in the 2016 OOOOa rule has created numerous problems for midstream operators. The definition of a well site and the explanatory statements of EPA in its preamble to the 2016 OOOOa rule, the Response to Comments to the 2016 OOOOa rule, and the 2017 Notices of Data Availability (see 82 FR 51788 and 82 FR 51794) underscore the confusion in the interpretation of whether collocated midstream equipment at a well site could become subject to fugitive emissions monitoring at the well site, despite the midstream equipment being owned and operated by separate entities from the well site. For example, under one interpretation of the 2016 Subpart OOOOa well site definition, existing midstream equipment that is co-located at a well site could become subject to Subpart OOOOa if an upstream producer constructed a new well, refractured an existing well, or undertook a number of other actions that could increase upstream emissions at the site. Such a modification by an upstream operator would trigger Subpart OOOOa fugitive emissions monitoring for both the upstream *and* midstream assets without any action by the midstream operator. It was patently unreasonable to subject a midstream operator to costly fugitive emissions monitoring due to actions taken by the upstream producer. *E.g.*, GPA Midstream White Paper at 8. Moreover, in most cases, midstream equipment located on well sites is propriety, such as a well site custody transfer meter which serves as the commercial point of exchange between producers and

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<sup>6</sup> Including midstream assets in the definition of well site is also unlawful and unreasonable GPA Midstream White Paper at 7-9. For one, including midstream assets in the definition of well site is unlawful because it is inconsistent with the statutory limitations on the scope of stationary source covered by Section 111 of the Clean Air Act. There is no lawful basis for EPA to have defined well site to define as a single source entirely distinct sources that are part of different industry segments and owned/operated by legally distinct entities. Moreover, the original well site definition was arbitrary and capricious, as EPA failed to account for the extraordinary costs midstream owner/operators would have had to incur to conduct leak detection surveys at a well site.

midstream operators. Hence, upstream producers lack the authority to access the equipment to conduct monitoring and repairs – and given the core commercial nature of the midstream equipment located at the well site, these are not matters that can be merely addressed by additional contractual terms. GPA Midstream White Paper at 8. Therefore, as a practical matter, it is infeasible to conduct a single monitoring survey that encompasses both upstream and midstream assets; instead midstream operators would have to separately conduct leak detection monitoring at well sites that contain co-located equipment.

Yet, this would be an extraordinary costly and burdensome effort, without any measured benefit or cost effective options. *E.g.*, GPA White Paper at 5; GPA Midstream Supplemental Comments, available at Dkt. ID No. EPA-HQ-OAR-2010-0505-7552. Indeed, it is commonly the case that a midstream operator has only a single meter on a well site. The cost of mobilization would outweigh the benefits that could be gained from leak detection programs for such a limited amount of equipment. These costs are compounded because well sites are often in remote locations and a technician may spend hours driving to spend 30 minutes or less to conduct on-site monitoring of this single piece of equipment. Such minimal leak detection monitoring is not cost-effective for midstream operators who may have comparatively few assets located on well sites.

#### **IV. Tanks**

##### **A. EPA should allow the use of generally accepted models and calculation methodologies as well as loadout tickets to determine liquid throughput of storage vessels.**

In the proposed rule, EPA is soliciting comments on maximum average daily throughput and calculation methodology to determine potential emissions from storage vessels. 83 Fed. Reg. 52084. The first 30-day period to determine maximum average daily throughput for midstream facilities is challenging as these assets are built for future production growth beyond the initial 30-day period after liquids first enter the storage vessel. Utilizing the first 30-day period typically results in an extremely low value as throughput volumes at G&B facilities increase as producers increase flow and bring on additional wells. G&B facilities typically utilize process simulations based on representative or actual liquid analysis to determine potential VOC emissions and volumetric condensate rates from the storage vessels based on the maximum gas throughput capacity of each facility. These generally accepted engineering models and calculation methodologies are then utilized to obtain Federal, State, local or tribal authority issued permits to set legally and practically enforceable limits to keep potential VOC emissions less than 6 tpy. Since most G&B facilities are required to obtain a duly issued permit with federally enforceable emission limits, a significant number choose to proactively and voluntarily install control devices on the storage vessels to reduce the VOC emissions below the 6 tpy

applicability limit. Therefore, it is not surprising that there are very few storage vessel affected facilities under the 2016 NSPS OOOOa. Due to the operating nature of G&B facilities, EPA should allow the use of these generally accepted models and calculation methodologies to project future maximum throughput volumes in lieu of the maximum average daily throughput determined within 30 days after liquids first enter the storage vessel.

GPA Midstream also appreciates EPA soliciting comment and suggestions on how to clarify or simplify the calculation for application by stakeholders such that the potential emissions from storage vessels may be determined. 83 Fed. Reg. 52084. In lieu of liquid throughput meters on each individual storage vessel, automated tank gauges, daily tank measurements, or calculating change in liquid height based on loadouts, GPA Midstream recommends allowing the option of a simpler approach of utilizing the actual loadout tickets. Loadout tickets are always provided by the truck haulers, readily accessible, easily trackable, verifiable, and are typically used in enhanced tracking systems for revenue and accounting purposes. Due to the accuracy of these tickets, most companies utilize them with tracking systems to determine revenue which is then used for other State and Federal reporting requirements. This method would eliminate costs and accuracy issues associated with liquid throughput meters, costs associated with automated tank gauges, manpower and accessibility issues of daily tank measurements, and accuracy issues associated with performing calculations based on changes in liquid heights. Additionally, EPA made clear in the 2012 NSPS OOOO Response to Public Comments in multiple responses that NSPS OOOO does not require the installation of costly equipment to monitor throughput. If EPA is now considering the use of this type of equipment in NSPS OOOOa, GPA Midstream requests EPA reassess all the technical and cost issues previously identified by multiple commenters in the 2012 NSPS OOOO.

As EPA identified in these proposed amendments, using the throughput to the entire battery by using records of liquids collected from the battery over time and dividing that figure by the number of storage vessels in the battery is appropriate where all liquids flow in equal amounts to all storage vessels in a tank battery with a common header and splitter system. 83 Fed. 52085. GPA Midstream agrees with this approach and would like to clarify that this method would also be appropriate for those tank batteries that are installed and operated in such a manner that only allows filling one tank at a time before switching to other tanks individually so that all storage vessels in a tank battery receive equal amounts of liquid. Similar to EPA's position in the preamble of the 2015 NSPS OOOO amendments, EPA already has sufficient provisions under the General Provisions at 40 CFR 60.12 "Circumvention" to address the situations where storage vessels may be configured or operated in such a manner to avoid applicability of the rule.

**B. GPA Midstream Supports Continued Tank Thief Hatch AVO Inspections.**

While GPA Midstream agrees that a “no detectable emissions” standard has been the traditional standard for fugitive components that by design are not expected to leak (e.g. valves with no external actuating shaft in contact with process fluid), thief hatches are inherently designed to vent to relieve pressure at certain set points as a safety and mechanical integrity protection measure. Therefore, a “no detectable emissions” standard - OGI inspection or alternative Method 21 - is not an appropriate leak inspection method for storage vessel thief hatches.

GPA Midstream also submits that requiring a work practice standard in lieu of a fugitive emissions leak inspection would not yield the desired result of reducing emissions. Further, due to the inherent variability of storage vessel operations (e.g. product composition, throughput, environmental factors, etc.) across the oil and gas industry, a one-size-fits-all approach would likely not work for all G&B operators. Indeed, requiring either work practice standards or a “no detectable emissions” standard places an unnecessary burden on small businesses, without a demonstrable, cost effective reduction in emissions.

Instead, GPA Midstream believes that Audio, Visual, and Olfactory (AVO) inspections would be a more practical method to detecting fugitive emission leaks from storage vessel thief hatches. In the experience of GPA Midstream’s member companies, if a storage vessel thief hatch is slightly misaligned, the leaking of fugitive emissions from that hatch are easily detected by an AVO inspection. Therefore, an AVO inspection would effectively determine whether a storage vessel thief hatch is closed and properly sealed or if maintenance (e.g. gasket cleaning or replacement) is needed.

In the preamble, EPA discusses that they have observed fugitive emissions using OGI on thief hatches, even where the closed vent system (CVS) has been properly designed and certified. EPA also states that deteriorated gaskets are a root cause of the observed emissions. 40 CFR §60.5416a(c)(2) provides detailed instructions on how to conduct AVO inspections on storage tank covers, including inspection of thief hatch gaskets by looking for defects that include “broken, cracked, or otherwise damaged seals or gaskets on closure devices.” These requirements are adequate for ensuring that thief hatch gaskets are checked for damage or wear that would warrant maintenance or replacement. Because the inherent function and operation of cover openings, treating them like a CVS as operating with no detectable emissions is not practical. Rather, ensuring that the cover openings are operating as designed can be accomplished by conducting monthly AVO inspections and following the requirements of §60.5416a(c)(2).

## V. Modification of a Compressor Station

### A. EPA should retain compressor horsepower (hp) as the correct measure of increased emissions from the collection of fugitive emission components.

EPA has sought comment on whether the “engine horsepower” is the correct measure of increased emissions from the collection of fugitive emission components at a compressor station for the purpose of determining whether a “modification” has occurred. 83 Fed. Reg. 52074. GPA Midstream supports “compressor horsepower” rating as the correct measure, as clearly set forth in the 2016 OOOOa final rule (see 40 CFR § 60.5365a(j)(2)) and urges EPA to retain its existing regulatory language.

Specifically, GPA Midstream urges EPA to maintain and apply the plain language of its current definition of modification which triggers a modification based on a change in compressor horsepower. As 40 C.F.R. § 60.5365a(j) currently provides, a modification occurs when “(1) An additional compressor is installed at a compressor station; or (2) One or more compressors at a compressor station is replaced by *one or more compressors of greater total horsepower* than the compressor(s) being replaced. When one or more compressors is replaced by one or more compressors of *an equal or smaller total horsepower than the compressor(s) being replaced*, installation of the replacement compressor(s) does not trigger a modification of the compressor station for the purposes of 60.5397a.” (emphases added).

Engine horsepower is not a correct unit of measure to indicate increased emissions from the collection of fugitive emission components – and there is not regulatory basis to use that metric, as there is no reference to engines in the regulatory definition. GPA Midstream therefore requests that EPA continue to use compressor horsepower as stated in the current definition. This interpretation has been confirmed by regulatory agencies that reference discussions with EPA itself which provide confirmation that it is the compressor itself that is the key aspect of the modification standard, not the engine or the unit driver.<sup>7</sup> In one agency applicability determination, the agency stated it had recently contacted EPA for guidance to interpret the 2016 NSPS Subpart OOOOa. As stated in that letter,

*[i]n determining whether this NSPS applies to modified sources with respect to the collection of fugitive emission components at a compressor station for the purpose of 40 CFR § 60.5397a, the rule states that a modification to a compressor station occurs when one or more compressors*

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<sup>7</sup> E.g., Letter from L. Cole, ADEM to S. Roberts, Florida Gas Transmission Company Re: Rule Applicability Information – NSPS, Subpart OOOO and OOOOa – Crude oil and Natural gas Facilities (June 6, 2018) (“ADEM, June 6, 2018 Letter”) (EPA explained to ADEM “that the replacement of an engine with one of greater horsepower would not trigger modification of the compressor station for the purposes of 40 C.F.R. § 60.5365a(j), if the design capacity (compression horsepower) of the compressor it powers was not increased.”) (Attachment 3).

*at a compressor station are replaced by one or more compressors of a greater total horsepower than [sic] the compressor(s) being replaced. When one or more compressors are replaced by one or more compressors of an equal or smaller total horsepower, then the compressor replacement does not trigger applicability of this NSPS at the compressor station. The EPA explained that the replacement of an engine with one of greater horsepower would not trigger modification of the compressor station for the purposes of 40 CFR § 60.5365a(j), if the design capacity (compression horsepower) was not increased. The rule applies to the horsepower of the compressors at the compressor station regardless of whether the compressors are driven by electric motors, combustion turbines, or reciprocating internal combustion engines.<sup>8</sup>*

This analysis provided in the letter is both consistent with the actual language of the rule, and common logic regarding compressor station upgrades. There are many circumstances in which an engine at a compressor station can be replaced to increase horsepower to match a compressor with a higher horsepower rating that actually reduces emissions, because the engine is more efficient or constructed/operated with better controls.

Despite the relatively straightforward reading of the 2016 Rule on modifications, EPA included language in the preamble to the Proposed Rule that misquotes the modification standard and could result in undue confusion about the correct standard. Specifically, EPA states following in the proposed rulemaking:

*Modification of Compressor Stations. For the purposes of fugitive emissions components at a compressor station, a modification is defined in 40 CFR 60.5365a(j) as (1) the installation of an additional compressor at an existing compressor station or (2) the replacement of one or more compressors at an existing compressor station that results in a net increase in the total horsepower to drive the compressor(s) that are replaced at the compressor station. We are not proposing any changes to this definition; however, we are soliciting comment on whether the engine horsepower is the correct measure of increased emissions from the collection of fugitive emissions components.<sup>9</sup>*

EPA's preamble statement uses the phrase "the total horsepower *to drive* the compressors" which misstates the second modification standard for the 2016 OOOOa rule

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<sup>8</sup> *Id.*

<sup>9</sup> 83 Fed. Reg. 52074.



compressor station affected facilities. Rather, as set forth above, the regulatory text of 2016 OOOOa Rule clearly uses the term the horsepower of the “compressors” and not the engines or other mechanism that may be used to drive the compressors. Continuing to rely on compressor horsepower aligns with the approach that has been used since the original NSPS OOOOa was proposed in September of 2015. Moreover, as noted, EPA Regional Offices and State Agencies have already developed guidance, made applicability determinations and issued air permits based on the definition as written.<sup>10</sup> EPA should not at this juncture change the variable in question to engine horsepower in the regulations or retain the confusing preamble language in the final rule. Rather, the Agency should continue to adopt a clear path forward that is in line with the plain language of the final 2016 OOOOa rule, and the approach that companies and agencies have already taken under the regulations.

**B. EPA must further clarify that vapor recovery unit (VRU) installation does not trigger modification at compressor stations.**

GPA Midstream appreciated the clarity the EPA provided in the preamble of the Proposed Rule indicating that the addition of a VRU compressor, such as a screw or vane compressor, would not be a modification for the purposes of the compressor station fugitive emission standards. 83 Fed. Reg. 52074. However, since VRUs can also be reciprocating, GPA Midstream requests that the EPA provide further clarification. In the preamble EPA states it will not codify this clarification, but GPA Midstream believes EPA should include this clarification in the rule language to provide regulatory certainty for industry and regulators. As such, GPA Midstream recommends that EPA adopt the following language added below to 40 C.F.R. §60.5365a(j) in red underlined text:

*(1) An additional compressor is installed at a compressor station.*

*(2) One or more compressors at a compressor station is replaced by one or more compressors of greater total horsepower than the compressor(s) being replaced.*

*When one or more compressors is replaced by one or more compressors of an equal or smaller total horsepower than the compressor(s) being replaced, installation of the replacement compressor(s) does not trigger a modification of the compressor station for the purposes of 60.5397a.*

*(3) The addition of a vapor recovery unit (VRU) compressor does not trigger a modification of the compressor station for the purposes of 60.5397a.*

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<sup>10</sup> E.g., ADEM, June 6, 2018 Letter, *supra*.

## **VI. Fugitive Emissions Monitoring Requirements**

- A. EPA should extend the time period to complete a leak survey to 180 days after startup for affected fugitive emissions components at compressor stations as the current 60-day timeline means compressors and associated components not yet in service are being missed in the initial survey.**

EPA should extend the time period to conduct an initial OOOOa leak survey for compressor stations to 180 days after initial startup. Monitoring within 180 days after the initial startup of the first compressor at the facility would allow for more of the compressors to be online and result in a more effective and thorough initial monitoring event. EPA states that a longer lead time would result in more uncontrolled emissions from the industry. However, GPA Midstream has shown that the industry's leak rates are well below the level EPA assumes and therefore this should not be a concern.

In the G&B industry, operators commonly phase the startup of compressors at new or modified compressor stations over a period of several or more months. This is primarily because new compressor stations in the G&B sector are typically built for future production growth beyond the initial gas throughput of the facility. Staged compressor startup also results from a gradual increase in upstream natural gas production; construction-related delays, and; scheduled break in, tuning, and testing of engines and compressors. In many cases, compressors and associated fugitive emissions components at a compressor station are installed, tested and placed into service within 4 months of the first compressor startup, but an additional one to two-month period is then required by the owner/operator to coordinate with the leak survey contractor and get the leak survey on the surveyor's schedule. Based on this timeline, most affected fugitive emissions components could be captured in the first survey if the deadline to conduct the survey is extended to 180 days after startup.

A requirement of 180 days after startup for compressor stations would also result in more efficient leak monitoring. Extending the requirement from 60 to 180 days would allow owner/operators to reduce cost and increase consistency by using one contractor to perform leak surveys at multiple compressor stations located in the same area. From an economic standpoint, complying with the 60-day initial monitoring deadline has resulted in significant additional costs. Typically, companies schedule third-party contractors on a quarterly basis to complete monitoring events for all facilities in a single trip to reduce costs. In those instances where a company is installing multiple new compressor stations each month, it may require more one-off trips by the third-party contractor to comply with the 60-day deadline which is not cost effective or efficient. By allowing 180 days for the initial survey, the costs would be reduced by being able to group the new compressor stations into the next regularly scheduled monitoring event for other facilities in the area.

Lastly, a period of 180 days after startup for compressor stations is consistent with general NSPS modification requirements contained in 40 CFR Subpart A – General Provisions at 40 CFR 60.14(g) and performance testing requirement in 40 CFR 60.8(a). As noted by EPA in its preamble to the proposed 2018 OOOOa rule, EPA currently allows reporters 180 days for owner/operators to achieve and demonstrate compliance with plant LDAR requirements at a natural gas processing plant when a process unit is constructed, reconstructed, or modified (NSPS KKK, NSPS OOOO).

An example is shown below in Table 3 below.

Table 3 – Example of Tiered Compressor Station Startup

|                     | 9                  | 1                  | 10                 | 11                 |
|---------------------|--------------------|--------------------|--------------------|--------------------|
| Unit #              | AG 17134           | AG17135            | AG17136            | AG17137            |
| Make/Model          | CAT 3516B          | CAT 3516B          | CAT 3516B          | CAT 3516B          |
| Engine Family       | 4SLB               | 4SLB               | 4SLB               | 4SLB               |
| Serial Number       | JEF03076           | JEF03077           | JEF03081           | JEF03089           |
| Manufacture Date    | Oct-14             | Oct-14             | Oct-14             | Oct-14             |
| Maximum Rated HP    | 1380               | 1380               | 1380               | 1380               |
| Engine Displacement | 69 Liters          | 69 Liters          | 69 Liters          | 69 Liters          |
| Emission Control    | oxidation catalyst | oxidation catalyst | oxidation catalyst | oxidation catalyst |
| Fuel Used           | natural gas        | natural gas        | natural gas        | natural gas        |
| Construction Date   | 6/21/2017          | 8/18/2017          | 7/19/2017          | 7/31/2017          |
| Start Up Date       | 7/21/2017          | 9/8/2017           | 8/9/2017           | 8/21/2017          |

To implement this revision, GPA Midstream suggests the following revised rule language in 40 C.F.R. §60.5397a(f)(2), shown in red:

*(2) You must conduct an initial monitoring survey within ~~180~~ **180** days of the startup of a new compressor station for each new collection of fugitive emissions components at the new compressor station or by June 3, 2017, whichever is later. For a modified collection of fugitive components at a compressor station, the initial monitoring survey must be conducted within ~~180~~ **180** days of the modification or by June 3, 2017, whichever is later.*

**B. GPA Midstream appreciates the continued progress EPA has made on the “delay of repair” provisions, including removing the requirement to fix a leak during a shutdown that was unplanned, but GPA Midstream still has concerns with the rule as written today.**

As GPA Midstream outlined in previous comments regarding unplanned shutdowns, in some cases it is infeasible to conduct a repair during a “planned” blowdown or shutdown at a G&B compressor station. *E.g.*, The Delay of Repair Obligations in 40 C.F.R. § 60.5397a(h)(2) Create Compliance Issues that Need to be Addressed Through Regulatory Revisions, Joint Submission by GPA and INGAA at 1-5, available at EPA-HQ-OAR-2017-0483-0027. G&B compressors go up and down with very short notice. Thus, it is not always feasible to conduct

repairs given short notice or in instances where the unit may only be down for a few hours. The appropriate mechanical specialist may not be in the area or the required safety checks and evaluations might need longer to conduct than the given timeframe to put the unit back into service.

EPA has asked for comment on additional instances where delayed repairs may be appropriate. 83 Fed. Reg. 52076. GPA requests that EPA recognize that a lack of parts is a valid reason to delay a repair. It is not always feasible for a company to maintain all of the replacement parts it might need, nor is it feasible for a manufacturer to continuously hold everything in inventory. If a planned blowdown or shutdown occurs after the operator has ordered a part, but before it has arrived, it should not be required to keep that unit down until the part is delivered. Given these concerns, GPA Midstream recommends that the regulatory language be changed to allow owner/operators to defer leak repairs on the delay of repair (“DOR”) list until the next scheduled shutdown for maintenance.

GPA Midstream also requests that EPA allow compressor stations to extend the DOR beyond the two-year deadline when a repair would result in greater emissions than the leaking component over the two-year timeline. There are times in which a leaking component could leak for 10 years before the associated emissions would be greater than those caused by the blowdown that would be necessary to fix the leak. For example, in some cases an inlet valve could be leaking. To fix the valve, the operator would have to blowdown the 10 miles of pipe that lead up to the station. Those blowdown emissions are substantially higher than those caused by the leaking valve. As such, GPA Midstream asks that EPA allow compressor stations to document this emissions analysis and provide it in the annual report as justification to extend DOR beyond the two-year deadline currently required in the rule.

As an alternative to documenting a DOR extension emission analysis in the annual report as requested above, GPA Midstream requests EPA at a minimum, provide compressor stations with the ability to request a waiver from the agency to go past the two-year deadline to repair all components on DOR. The waiver would be justified if it could be shown that requiring the repair during the two-year period would cause greater emissions than allowing an extension to repair the leaking component. GPA Midstream proposes the following text to accommodate both of these requests in 60.5397a(h)(2):

*(2) If the repair or replacement 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 or replacement must be completed during the next scheduled compressor station shutdown for maintenance, well shutdown, well shut-in, after a planned vent blowdown or within 2 years, whichever is earlier. The Administrator may grant a waiver to the 2 year limit in*

*which the identified source of fugitive emissions shall be repaired or replaced for instances in which the emissions released to conduct the repair or replacement exceed those that would occur from the leaking component during a provided time period.*

**C. GPA Midstream appreciates EPA clarifying the repair timeline language with the inclusion of definitions for “first attempt at repair” and “repaired.”**

These changes provide sufficient clarity to operators trying to repair leaks and conforms with existing leak monitoring programs for the oil and gas industry. In the NSPS OOOOa Reconsideration, EPA proposed to amend the repair requirement to require a “first attempt at repair” within 30 days of detection of the fugitive emission, followed by a requirement that identified fugitive emissions be “repaired” within 60 days following detection.

GPA Midstream agrees with EPA’s proposed language to include a first attempt at repair within 30 days of identifying the fugitive emission. Additionally, GPA Midstream agrees with EPA’s definition of repaired. This change will eliminate any potential non-compliance when a repair attempt does not fully repair a leaking component.

**D. The EPA’s proposed changes to the detailed and complex requirements for compressor station monitoring plans continue to go far beyond what is needed to ensure that operators are effectively monitoring fugitive emissions and do not significantly reduce the burden to the program.**

As GPA Midstream has explained in previous comments, complex monitoring plans requiring operators to detail a “walking path” (or as referenced in the current rules, an “observation path”) are wholly unnecessary for compressor stations. *E.g.*, Gas Processors Association, Comments on Oil and Gas Sector: Emission Standards for New and Modified Sources, Proposed Rule (Docket EPA-HQ-OAR-2010-0505) at 21 (December 4, 2015). Accordingly, we urge EPA to revise 40 C.F.R. § 60.5397a(d) and streamline monitoring planning for compressor stations to provide that an operator training requirement, coupled with a written certification that each monitoring survey was performed appropriately should be more than sufficient to demonstrate that each component was monitored.

GPA Midstream appreciates that EPA has attempted to clarify requirements by allowing a plot plan to be used to satisfy the sitemap requirement. However, that proposed revision and the other alternatives for the “walking path” are still unduly burdensome and unnecessary, as the requirements would have no material impact on the quality of an operator’s monitoring survey program at a compressor station and or otherwise improve compliance during an actual survey. G&B sites are relatively simple sites without many monitoring complexities. Hence, G&B sites

are unlike complex SOCOMI facilities and natural gas processing plants where EPA has previously imposed LDAR programs.

In the alternative, if EPA continues to include a “walking path” requirement in G&B site monitoring plans, GPA Midstream agrees that the proposed changes and alternative approaches to compliance offer some modest additional flexibility and should be included in the final rule. However, we recommend that EPA remove the requirement of a narrative down to the component level within 60.5397a(d)(1), as that is burdensome and unnecessary. Accordingly, we propose the following revisions to § 60.5397a(d)(1)(iv):

*(iv) For all other fugitive emissions components not associated with a closed vent system or controlled storage vessel regulated under this section, a narrative description of how the fugitive emissions components will be monitored, ~~including a description and location of all fugitive emissions components.~~ The description ~~and location~~ of fugitive emissions components may be grouped by unit operations (e.g., separator, heater/treater, glycol dehydrator). The sitemap or plot plan must include the location of each unit operation.*

## **VII. Alternative Means of Emission Limitations (AMEL)**

### **A. EPA should allow states to make AMEL requests in lieu of receiving hundreds of requests from owners or operators following promulgation of equivalent state standards.**

EPA indicated in its proposal that the ability to make an AMEL request is limited to owners and operators at the individual site level and cannot be made by state programs. GPA Midstream submits the Act provides broader authority to allow the request to be made by any person, which necessarily includes a state.

The relevant provision of the Clean Air Act, Section 111(h)(3), states in part that an AMEL may be granted “if after notice and opportunity for public hearing, *any person* establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such air pollutant” as may be achieved through a design, equipment, work practice, operational standard, or combination thereof, “then EPA shall permit the use of such alternative” to comply with Section 111 requirements for that pollutant. 42 U.S.C. § 7411(h)(3) (emphasis added). Further, the CAA defines a “person” as “... an individual, corporation, partnership, association, *State*, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof.” 42 U.S.C. § 7602(e) (emphasis added).

GPA Midstream further urges finding an easier path forward for the approval of additional state regulations as meeting the AMEL criteria. Specifically, as noted, Section 111(h)(3) limits the use of an AMEL to instances where it has been demonstrated to EPA that the AMEL would achieve an emissions reduction for a pollutant at least equivalent to the reduction achieved under the NSPS for that pollutant. EPA has indicated that several states already meet those requirements and so has proposed to approve certain existing state requirements as AMELs for the fugitive emissions requirements for compressor stations. 83 Fed. Reg. 52080-81. GPA Midstream supports EPA's determination to recognize those existing state programs.

However, GPA Midstream expects that other state regulations will or should qualify for similar treatment, such as by mimicking NSPS OOOOa requirements (*e.g.*, New York is using EPA's control techniques guidance as a basis) or by mirroring a state regulation that EPA has already approved as an AMEL (*e.g.* New Mexico is using Colorado Regulation 7 as a basis for its regulations). As these state programs follow already approved approaches that are presumed thereby to meet the requirements of Subpart OOOOa, EPA should expedite its process for determining that a state program should be approved as an AMEL. Moreover, EPA should issue guidance to facilitate the use of the AMEL regulations during the interim period while the Agency is undertaking the formal process of revising Subpart OOOOa to incorporate the state program as an AMEL. As an example, it would streamline the process if once a source notified EPA of its intention to comply with the applicable proposed state AMEL, that EPA utilized its enforcement discretion for the time period between state promulgation of an equivalent standard and revision of OOOOa to incorporate the AMEL.

**B. GPA Midstream supports an option for an operator applying for an AMEL to group facilities under one AMEL.**

In the Proposed Rule, EPA has proposed changes to streamline the application process for emerging technologies, including allowing an individual application to include the same technology for multiple sites. 83 Fed. Reg. 52080. These are helpful and useful changes, and GPA Midstream urges EPA to adopt the proposed changes. Yet, there are further opportunities to streamline and improve the regulatory process to expedite the approval and use of improved technology. While an emerging technology may have limited use that may depend on site conditions and seasonal variations, manufacturers of emission limiting or monitoring technologies strive to develop products that have wide applicability. Accordingly, GPA Midstream requests that if a particular AMEL has been approved by EPA, and if site-specific conditions are not a factor in the AMEL's effectiveness, then new sites could apply the AMEL by letter of notification (covering one or multiple sites) and therefore, utilize the AMEL upon startup and before collection of field data.



To facilitate sharing of information on approved measures, GPA Midstream recommends the EPA post technologies to the EPA website that meet the performance requirements, similar to how the EPA manages performance tested combustion control devices for NSPS OOOO, NSPS OOOOa and MACT HH and MACT HHH. In the posting, emerging technology manufacturers would indicate the performance requirements met by the equipment, and they and EPA could identify any limitations a device may have (e.g. weather, topography, etc.). Any limitation of a new technology could be addressed in a site monitoring plan, rather than requiring site-by-site review of each technology. This is the same approach that is used for OGI to handle the limitations of emission detection based on site ambient temperature or wind conditions. Having a list of technologies that meet the performance requirements will help reduce operator workload in applying for an AMEL and reduce workload for the EPA in reviewing the applications. A list of emerging technologies shown to meet the performance requirements would encourage the adoption of equipment most efficient at limiting emissions.

GPA Midstream understands that CAA §111(h)(3) limits the use of an AMEL to sources that are permitted by the Administrator. This approach would provide a precedent for other sources to utilize new technologies shown to meet the performance requirements for the same purpose. We note that EPA included footnotes in its list of “Performance Testing for Combustion Control Devices” which exempts companies from conducting performance testing under several NSPS requirements without endorsing any of the manufacturers or their products.

*Footnote 1:*

*The purpose of the table is to inform owners or operators the combustion control devices that have been manufacturer tested and for which the test results have been submitted to EPA for review. Inclusion on this list is for informational purposes only. EPA does not endorse any of these manufacturers or their products.*

*Footnote 2:*

*“Yes” means that the manufacturer has demonstrated that the specific model of control device listed achieves the combustion control device performance requirements in NSPS subpart OOOO and NESHAP subparts HH and HHH through performance testing conducted as specified in these subparts. An owner or operator who uses a device listed above as “YES” is exempt from conducting performance tests under 40 CFR §60.5413(a)(7), §60.5413a(a)(7), §63.772(e) and/or §63.1282(d), and from submitting test results under §60.5413(e)(6), §60.5413a(e)(6), §63.775(d)(1)(ii) and/or §63.1285(d)(1)(ii), as applicable. “Yes” does not constitute an endorsement by EPA. Operation of such a device*



*does not relieve the owner or operator of an affected facility from other compliance obligations under the rule.*

We urge EPA to adopt a similar approach here, specifically, GPA Midstream requests that companies be allowed to submit AMEL requests on a broad basis, whether on a national or basin level.

**C. GPA Midstream contends that the entirety of state fugitive emissions requirements, including a state's component list, be regarded by EPA as the acceptable alternative fugitive emissions requirement in that state.**

GPA Midstream disagrees with EPA's proposed requirement that the owner or operator survey EPA's entire list of OOOOa fugitive emissions components, regardless of whether the components are regarded as affected components in a state program. In its memorandum, *Equivalency of State Fugitive Emissions Programs for Well Sites and Compressor Stations to Proposed Standards at 40 CFR Part 60, Subpart OOOOa* (EPA Docket ID No. EPA-HQ-OAR-2017-0483), EPA made OOOOa equivalency determinations by considering state requirements in the broader context of the state's overall fugitive emissions program. The entirety of a state program's fugitive emissions requirements, including state's component list, should be regarded by EPA as the acceptable fugitive emissions alternative to OOOOa in that state. This approach would further prevent confusion by owners and operators, allowing them to comply with one fugitive emissions component list for all sites in a single state, rather than two - one list for OOOOa sites, another for non-OOOOa sites.

**D. EPA should reduce the advance notice deadline for an owner/operator to notify EPA of its intention to adopt an alternative standard at a site.**

GPA Midstream suggests that 60 days prior notice to EPA is a more reasonable requirement for an owner or operator to notify EPA before adopting an alternative fugitive emissions standard for a well site or compressor station. The current 90-day requirement unnecessarily limits the source's flexibility without demonstrable benefit. Moreover, 60 days is consistent with the general NSPS notification requirement in 40 CFR Part 60 Subpart A, *see* 40 C.F.R. § 60.7(a)(4), for physical or operational changes made to an existing facility.

**E. EPA should revise OOOOa to exempt companies from compliance with the monitoring plan requirements in 40 C.F.R. § 60.5397a(c) and (d) for state programs that have been deemed equivalent.**

Sites complying with state programs are already required to do the recordkeeping and reporting as is required by that program. If a program has been deemed equivalent by EPA, then the entirety of that state program should be deemed sufficient, including the recordkeeping and reporting, in lieu of the overlapping requirements found in OOOOa . The NSPS OOOOa

monitoring plan requirements are quite burdensome and having to comply with those requirements on top of state requirements would severely diminish the benefit gained from the equivalency determination.

**F. EPA Should Allow Alternative Fugitive Emissions Requirements for Compressor Stations in Texas.**

EPA should revise the Proposed Rule and approve Texas regulations as alternative fugitive emissions requirements for compressor stations located in Texas. In support of its proposal, EPA has issued a memorandum entitled the “Equivalency of State Fugitive Standards for Well Sites and Compressor Stations to Proposed Standards at 40 CFR Part 60, Subpart OOOOa” Memorandum dated April 12, 2018 (“State Equivalency Memo” or “Memo”). In the Memo, EPA proposed alternate standards in Texas for well sites only and did not include compressor stations. GPA Midstream submits that G&B compressor stations were inappropriately left out of this equivalency approval. The TCEQ Permit by Rule (PBR) and Standard Permit language for oil and gas operations include production, gathering, processing, and transmission. Those activities are not exclusive to production. Below are the applicability definitions for Texas’ Permit by Rule for Oil and Gas Facilities (30 TAC 106.352), Oil and Gas Standard Permit (30 TAC 116.620) and Oil and Gas Non-Rule Standard Permit.

- TCEQ Non-Rule Standard Permit: 30 TAC 116.620(a) Applicability. This standard permit applies to all stationary facilities, or groups of facilities, at a site which handle gases and liquids associated with the production, conditioning, processing, and pipeline transfer of fluids or gases found in geologic formations on or beneath the earth’s surface including, but not limited to, crude oil, natural gas, condensate, and produced water...
- TCEQ Permit by Rule: 30 TAC 106.352(a). This section applies to all stationary facilities, or groups of facilities, at a site which handle gases and liquids associated with the production, conditioning, processing, and pipeline transfer of fluids or gases found in geologic formations on or beneath the earth's surface including, but not limited to, crude oil, natural gas, condensate, and produced water
- TCEQ Standard Permit: 30 TAC 116.620 is applicable to Oil and Gas Facilities. Oil and Gas facilities for the purposes of standard permits is defined in 30 TAC 116.14(2) as “facilities which handle gases and liquids associated with the production, conditioning, processing, and pipeline transfer of fluids found in geologic formations beneath the earth's surface. These oil and gas facilities include, but are not limited to: oil or gas production facilities; water injection facilities; carbon dioxide separation facilities; or oil or gas pipeline facilities consisting of one or more tanks, separators,

dehydration units, free water knock-outs, gunbarrels, heater treaters, vapor recovery units, flares, pumps, internal combustion engines, gas turbines, compressors, natural gas liquid recovery units, or gas sweetening and other gas conditioning facilities. This definition does not include sulfur recovery units.”

These definitions include G&B sites, which include compressor stations. Therefore, the evaluations of the requirements in these permit authorizations apply equally to well sites and compressor stations, as defined in NSPS OOOOa. As such, EPA should amend Table 21 of its State Equivalency Memo to show the same Initial Monitoring, Monitoring Frequency and Repair Requirements for both well sites and compressor stations for Texas. In addition, EPA should add an additional subpart in 40 CFR 60.5399a(m) applying to fugitive emission requirements for compressor stations in the state of Texas.

GPA Midstream supports the Texas Pipeline Association’s comment on this subject.

## **VIII. Gas Plants**

### **A. GPA Midstream supports EPA proposed correction to the definition of “capital expenditure” at 40 C.F.R. § 60.5430a, replacing the year “2011” with “2015” in the second paragraph in the equation to solve for Y.**

As EPA states in the preamble of the proposed rule revision, this revision will ensure the equation provides a usable mathematical result for onshore natural gas processing plants constructed after 2011. Making this proposed revision will ensure sources more regulatory certainty when determining if a modification has occurred. However, as outlined in the next comment, GPA Midstream strongly suggests EPA revise the equation for Y so it better reflects a widely utilized measure of inflation.

### **B. EPA should revise the capital expenditure calculation to connect the inflation rate to the consumer price index.**

The value for Y outlined in paragraph 2 of the definition for “capital expenditure” found in 40 C.F.R. § 60.5430a is intended to adjust the annual asset guideline repair allowance (“A”) by an inflation rate since the construction date of the onshore natural gas processing plant (“Y”). As shown in GPA Midstream’s previous comments<sup>11</sup> on NSPS Subpart OOOOa and referenced by EPA in the preamble to this proposed rule, the current equation for Y overestimates inflation and no longer correlates with the widely recognized measure of inflation known as the consumer price index (CPI). The CPI is calculated by the U.S. Bureau of Labor Statistics (BLS) and is utilized by many U.S. government entities as the measure of inflation. For example, since

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<sup>11</sup> See Docket ID No. EPA-HQ-OAR-2010-0505-7237

inflation is a key economic indicator reflecting the health of the economy, the Federal Reserve System utilizes the CPI as its primary metric, along with a similar index named the personal consumption expenditures (PCE) produced by the Bureau of Economic Analysis, to determine current inflation rates. Further, the Social Security Administration bases its annual cost-of-living adjustment on CPI data as the primary metric of inflation.

EPA should update the equation for Y to be a simple ratio of the CPI of the date of construction divided by the CPI of the date of component price data (i.e.; date of component purchase). Since there are several versions of the CPI published by the BLS, GPA Midstream suggests EPA specify that the “annual average of the consumer price index for all urban consumers (CPI-U), U.S. city average, all items” be used for the CPI for year of construction/reconstruction. For the CPI used on the date of component price data, EPA should specify that the “consumer price index for all urban consumers (CPI-U), U.S. city average, all items be used for the month of the purchase, or the most recent published month if the CPI has not yet been released.” From recent releases of CPI data, the BLS will release the previous month’s data by the 15<sup>th</sup> of the next month. For example, the October 2018 CPI data was released on November 14, 2018. The proposed equation and an example are outlined below:

$Y = (\text{CPI of date of construction or reconstruction} / \text{CPI of date of component price data})$

Example: A replacement component is purchased in October of 2018 for a processing plant that was constructed in 2000. For the example, the replacement cost of the processing plant is \$3,000,000.

Calculation using existing definition for Y with the proposed update using 2015 as the base year:

$$Y = 1 - 0.575 * \log(2015 - 2000)$$

$$Y = 0.49984$$

Calculation using GPA Midstream’s proposed CPI comparison value for Y:

$$Y = (\text{average CPI value for 2000}) / (\text{CPI value for October 2018})$$

$$Y = (172.200) / (252.885)$$

$$Y = 0.68094$$

When applied to the remainder of the capital expenditure equation:

| <b>Current Rule Definition:</b>        | <b>Proposed GPA Midstream Definition:</b> |
|--|---|
| $A = Y \times (B / 100); B = 4.5$      | $A = Y \times (B / 100); B = 4.5$         |
| $A = 0.49984 \times (4.5 / 100)$       | $A = 0.68094 \times (4.5 / 100)$          |
| $A = 0.02249$                          | $A = 0.03064$                             |
|  |   |
| $P = \text{Replacement Cost} \times A$ | $P = \text{Replacement Cost} \times A$    |

|                           |                           |
|---------------------------|---------------------------|
| P = \$3,000,000 X 0.02249 | P = \$3,000,000 X 0.03064 |
| P = \$67,470              | P = \$91,920              |

**C. GPA Midstream supports EPA’s proposed monitoring exemption for onshore natural gas processing plant equipment in VOC service less than 300 hours per year.**

EPA has proposed to extend the monitoring exemption for onshore natural gas processing equipment in VOC service less than 300 hours per year. As EPA states in the preamble of this Proposed Rule, planning monitoring for pieces of equipment that seldom operate in VOC service is challenging and “the effort outweighs the limited potential gain in emissions.” 83 Fed. Reg. 52086. Extending this exemption from NSPS Subpart VV/VVa to NSPS Subpart OOOOa reduces regulatory burden on onshore natural gas processing plants and is greatly appreciated.

**D. GPA Midstream would like clarification that monitoring two consecutive months are not needed for existing valves when going from OOOO to OOOOa at a gas plant for existing valves.**

The monitoring requirements do not change from one rule to the other, so the valves should be allowed to remain on the quarterly monitoring frequency. As implementation of OOOOa has progressed, there have been inconsistent responses where some state agencies and members of EPA have stated that two consecutive months monitoring are required since a new rule is triggered, while others have said that quarterly monitoring can continue. Requiring consecutive monthly monitoring adds unnecessary costs to valves that have already been operating under the exact same requirements as the OOOOa monitoring program 500 ppm leak definition.

**IX. Professional Engineer Certification**

GPA Midstream supports EPA’s proposed changes to allow a non-professional engineer (“PE”) to certify the design of a CVS, as the revision will add much needed flexibility to the rule. Proposed Rule, 40 C.F.R. § 60.5411a(d)(1). The proposed changes will allow engineers who are more familiar with the process design systems to control emissions and avoid unnecessary costs and time associated with obtaining a PE signature.

GPA Midstream believes EPA should additionally remove the “in-house” engineer reference in the proposed language to allow other qualified individuals to provide the required certification. 83 Fed. Reg. 52079. Removing the requirement for an “in-house” engineer would also allow a company-hired contractor or consultant who may be designing the system to approve the design. This will provided valuable additional flexibility, but will not remove any protections, as the Proposed Rule would still require the engineer to certify she/he has expertise

on the design and operation of CVS. The company hired contractor or consultant is involved in the design of the controlled system and will be familiar with the needs of the CVS.

GPA Midstream appreciates the opportunity to submit comments on the Proposed Rule. We look forward to continuing to work with EPA as it continues to refine and improve its approach to address air emissions from the oil and natural gas sector. Thank you for consideration of these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew Hite". The signature is fluid and cursive, with the first name "Matthew" being more prominent than the last name "Hite".

Matthew Hite  
Vice President of Government Affairs  
GPA Midstream Association

Attachments:

Attachment 1 – Company Data - Compressor Stations Leak Rates

Attachment 2 – Updated Cost of Implementing Equipment Leak Monitoring Program at a Compressor Station (Gathering and Boosting)

Attachment 2A – Updated Model Plant including Updated Cost Information

Attachment 3 - Letter from L. Cole, ADEM to S. Roberts, Florida Gas Transmission Company  
Re: Rule Applicability Information – NSPS, Subpart OOOO and OOOOa – Crude oil and Natural gas Facilities (June 6, 2018)

Attachment 2 - Updated Cost of Implementing Equipment Leak Monitoring Program at a Compressor Station (Gathering and Boosting)

Tab “MP OGI Cost” of Attachment 2 – Proposed Rule 0000a TSD Section 2 – OGI Compressor Model Plant Costs

| Item   | Number of People | Number of Hours per Person | Total Hours | Labor Cost (\$/hour) <sup>a</sup> | Annual                   | Semiannual               | Quarterly                | Comment   |
|--|------------------|----------------------------|-------------|-----------------------------------|--------------------------|--------------------------|--------------------------|---|
|  |                  |                            |             |                                   | Contractor OGI (\$/year) | Contractor OGI (\$/year) | Contractor OGI (\$/year) |   |
| Company Level Costs                            |                  |                            |             |                                   |                          |                          |                          |   |
| Read rule and instructions                     | 1                | 4                          | 4           | \$61.21                           | \$245                    | \$245                    | \$245                    | Hours from PES Memorandum <sup>b</sup> (Note: one time cost per company)  |
| Development of Equipment Leaks Monitoring Plan | 2.5              | 24                         | 60          | \$61.21                           | \$3,672                  | \$3,672                  | \$3,672                  | Estimated cost to develop monitoring plan. Based on average number of people and hours from PES Memorandum <sup>b</sup> (Note: one time cost per company)                           |
| Initial Activities Planning                    | 2                | 16                         | 32          | \$61.21                           | \$1,959                  | \$1,959                  | \$1,959                  | Hours from PES Memorandum <sup>b</sup> (Note: one time cost per company)  |
| Notification of Initial Compliance Status      | 1                | 1                          | 1           | \$61.21                           | \$428                    | \$428                    | \$428                    | Assumes that 1 hour is spent to prepare the notification for each compressor site   |
| OGI Monitoring Device                          | N/A              | N/A                        | N/A         | N/A                               |                          |                          |                          | OGI cost provided in API comments, 12/14/2015   |
| OGI Operator Certification                     | N/A              | N/A                        | N/A         | N/A                               |                          |                          |                          | Cost of certification from Infrared Training Center. FLIR recommends certification training every 5 years   |
| M21 Monitoring Device                          | N/A              | N/A                        | N/A         | N/A                               |                          |                          |                          | Assumes soap solution is used for resurvey when repairs are not possible during monitoring  |
| First Year Total Hours and Cost per Company    |                  |                            |             | 118                               | \$6,304                  | \$6,304                  | \$6,304                  | Includes read rule and instructions, monitoring plan, initial activities planning, and notification of initial compliance status.   |
| First Year Cost per Compressor Station         |                  |                            |             |                                   | \$901                    | \$901                    | \$901                    | Assumes company uses 1 OGI for 7 compressor stations  |
| Compressor Station Costs                       |                  |                            |             |                                   |                          |                          |                          |   |
| Subsequent Activities Planning                 | 2                | 12                         | 24          | \$61.21                           | \$1,469                  | \$1,469                  | \$1,469                  | Hours from PES Memorandum <sup>b</sup>  |
| OGI Camera Survey                              | 1                | 10.6                       | 10.6        | \$61.21                           | \$2,300                  | \$4,600                  | \$9,200                  | Assumes compressor station inspection would take 10.6 hours per survey based on information from the CO Cost-Benefit Analysis. Contractor assumed to be \$2,300 per survey          |
| Operations Support During Survey               | 1                | 12.6                       | 12.6        | \$22.72                           | \$286                    | \$573                    | \$1,145                  | Assumes that operations personnel (\$22.72/hr) <sup>a</sup> would need to be present on site during 10.6 hour survey to accompany contractor + 2 hours of travel time               |
| Repair Costs                                   | N/A              | N/A                        | N/A         | N/A                               | \$322                    | \$645                    | \$1,289                  | Assumes 0.24% or 5 total leaks found per survey, 3.5 fixed online (4 * 0.17 hours * \$66.24/hr) and 1 fixed offline (1 * 4.0 hours * \$66.24/hr) <sup>d</sup> , adjusted to 2016\$. |
| Repaired Component Resurvey (M21 Device)       | N/A              | N/A                        | N/A         | N/A                               | \$235                    | \$469                    | \$938                    | Resurvey costs assumes 5 minutes per leak at \$57.80 per hour, adjusted to 2016\$.  |
| Travel to/from Compressor Station              | N/A              | N/A                        | N/A         | N/A                               | \$309                    | \$618                    | \$1,236                  | Estimated 4,000 miles/yr and \$0.54/mile (GSA) for each monitoring survey for 7 compressor stations. Dollar value listed on a per site basis.                                       |
| Annual Report                                  | 1                | 4                          | 4           | \$61.21                           | \$245                    | \$245                    | \$245                    | Assumes that 4 hours are spent to prepare the annual report for each compressor station and includes storing/filing of records  |
| Annual Hours and Cost per Compressor Station   |                  |                            |             | 51.2                              | \$5,166                  | \$8,618                  | \$15,523                 | Sum of planning, monitoring, reporting and storing of records   |
| Annual Cost with Amortized Capital Cost        |                  |                            |             |                                   | \$5,316                  | \$8,769                  | \$15,673                 | First year cost per well site cost amortized over 8 years at 7% interest  |

<sup>a</sup> Labor rates obtained from Table 11 in the Memorandum from Cindy Hancy, RTI to Jodi Howard, EPA, Analysis of Emission Reductions Techniques for Equipment Leaks, December 21, 2011 for general and operations managers (\$57.80/hr) and leak repair and labor charge (\$66.24/hr), adjusted to 2016\$.

<sup>b</sup> Hours obtained from Attachment 7 in the Memorandum from Ken Meardon, PES to John Schaefer, EPA, Equipment Leak Analysis for Amino and Phenolic Resins NESHAP

<sup>c</sup> OGI monitoring cost obtained from Appendix 1 in the Carbon Limits Report CL-13-27, Quantifying Cost-effectiveness of Systematic Leak Detection and Repair Programs Using Infrared Cameras

<sup>d</sup> The leak percentage was obtained from Table 5 of Memorandum from Cindy Hancy, RTI to Jodi Howard, EPA, Analysis of Emission Reductions Techniques for Equipment Leaks, December 21, 2011.

<sup>e</sup> The component resurvey cost based on the average subsequent monitoring fee in Table 13 of Memorandum from Cindy Hancy, RTI to Jodi Howard, EPA, Analysis of Emission Reductions Techniques for Equipment Leaks, December 21, 2011.

<sup>f</sup> Cost values are adjusted for 2016\$ using the GDP Deflator value as 1.058919 as updated by the Federal Reserve Economic Data on January 26, 2018.

1.058919 GDP Deflator