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Climate Change Division, Office of Atmospheric Programs
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
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Submitted electronically via www.regulation.gov. Docket ID No. EPA-HQ-OAR-2023-0234

BP America Inc. Comments RE: Greenhouse Gas Reporting Rule: Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems; Docket No. EPA-HQ-OAR-2023-0234

Dear Ms. Bohman,

BP America Inc. is pleased to submit comments on the Environmental Protection Agency's ("EPA") proposed rule ("Proposal") to update the Subpart W Greenhouse Gas Reporting Program ("GHGRP").

1. Introduction

bp is transforming into an integrated energy company with a significant footprint in the US.¹ Across nearly every state, bp employs more than 30,000 people and supports more than 275,000 American jobs. Since 2005, bp has invested more than \$145 billion in the US; and in 2022 alone, our operations contributed more than \$70 billion to the US economy. We have a larger economic footprint in the US than anywhere else in the world.

We're transforming bp so we can help deliver the secure, affordable, lower carbon energy the world increasingly wants and needs. bp's purpose is to reimagine energy for people and our planet. Our ambition is to become a net zero company

¹ "bp" is used interchangeably herein to refer to BP p.l.c. or any subset of the BP group of companies.

by 2050 or sooner; and to help the world get there, too. We aim to dramatically reduce carbon in our operations and in our production, and grow new low carbon businesses, products and services.

bp commends EPA's efforts to update the Subpart W Greenhouse Gas Reporting Program in line with the statutory mandate in the Inflation Reduction Act ("IRA") to ensure that methane reporting methodologies are "based on empirical data."² bp recognizes the importance of robust reporting methodologies to ensure accurate GHG emissions inventories from oil and gas facilities, and supports EPA's efforts to further develop the GHGRP.

bp has been pleased to engage constructively with EPA on the proposed New Source Performance Standards ("NSPS") and Emissions Guidelines ("EG") OOOO rules over the past few years, and many of those comments are directly relevant here. To that end, bp is incorporating its comments on the supplemental proposed NSPS and EG OOOO rules as an appendix to its comments in this docket. In particular, bp directs EPA's attention to comments on (a) continuous monitoring (which is also discussed in detail in this letter below), and (b) the framework and principles for the proposed Super-Emitter Response Program ("SERP").

With respect to third-party involvement in reporting "other large release events" under Subpart W, bp reiterates its suggestion that EPA take an active oversight role to ensure that EPA is not improperly delegating regulatory or enforcement authority to third parties. In particular, EPA should ensure that (i) only qualified third parties may provide notifications under Subpart W, (ii) such notifications are made in a timely manner to operators, and (iii) EPA reviews and verifies third party data prior to triggering any regulatory obligations.³

bp offers comments on two topics of particular importance for EPA to consider in finalizing the rule and over the long term in implementing the GHGRP:

- Incentivizing the use of advanced monitoring technologies, especially continuous monitoring systems.
- Ensuring long-term stability in measurement and reporting standards given the Methane Waste Emissions Charge established under the Clean Air Act by the IRA ("methane charge").

2. EPA Should Expand the Use of Continuous Monitoring under Subpart W

bp is developing and deploying advanced methane emissions monitoring technologies, including continuous monitoring sensor networks, across its

² 42 U.S.C. 7436(h).

³ See BP America Inc. Comments Re: Supplemental Proposal Regarding Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (Feb. 13, 2023).

facilities. Such technologies allow bp to more quickly and efficiently detect and repair leaks, thereby reducing overall emissions. bp therefore supports EPA's proposal to allow for the use of advanced monitoring technologies to report on "other large release events."⁴ This aspect of EPA's proposal has the potential to incentivize greater deployment of such technologies that more accurately capture the duration and size of large release events, and bp encourages EPA to retain this approach in the final rule.

With respect to sources of emissions *other than* "large release events," bp is concerned that EPA's proposal may disincentivize the use of advanced monitoring technologies. Specifically, EPA has proposed to *exclude* advanced monitoring technologies, including continuous monitoring systems, from the requirement to conduct leak surveys to detect equipment leaks other than "large release events."⁵ Instead, EPA's proposal allows for the use of only a small set of methodologies for conducting leak surveys — specifically, those that are already employed under the current Subpart W rule, such as handheld optical gas imaging ("OGI") equipment and Method 21.⁶

EPA's exclusion of continuous monitoring systems from the list of authorized equipment leak survey methodologies appears to be (i) based on potentially inaccurate assumptions regarding the capabilities of continuous monitoring systems, (ii) potentially contrary to Congress' intent to incorporate empirical data into the GHGRP, and (iii) contrary to EPA's stated intent to provide consistency with the NSPS and EG OOOO rules.⁷

Given that continuous monitoring systems are capable of detecting leaks at the component level, bp urges EPA in the final rule to provide an option for reporters to use continuous monitoring systems to conduct leak detection surveys. EPA can implement this fix by establishing a review and approval process, which would allow operators and technology providers to demonstrate the capabilities of their continuous monitoring systems and identify any necessary adjustments to the factors used when calculating emissions from those leaks.

Continuous monitoring systems are capable of emissions source-level leak detection with a high degree of accuracy.

In discussing the role of advanced emissions monitoring technologies, EPA refers to them broadly as "top-down approaches," and appears to include continuous monitoring in this category.⁸ For reporting emissions from any source other than "large emissions events," EPA excludes the use of all top-down approaches, asserting that these methods are "not presently able to provide annual emissions

⁴ See 88 FR at 50,289-290.

⁵ See 88 FR at 50,290-291; see also proposed §§ 98.233(q) and 98.234(a).

⁶ See proposed §§ 98.233(q) and 98.234(a).

⁷ See 42 U.S.C. § 7436(h); see also 88 FR at 50,288.

⁸ See, e.g., 88 FR at 50289 ("we reviewed measurement approaches that utilize information from satellite, aerial, and continuous monitoring ('top-down approaches')").

data to the degree of accuracy and certainty required by other provisions of this rule.”

This generalized description of “top-down approaches” (e.g., “taken over limited durations,” “when specific meteorological conditions exist,” and “at large spatial scales”) suggests that EPA may be thinking primarily of *periodic screening* methods. EPA states that “[m]ost top-down, facility measurements are taken over limited durations (a few minutes to a few hours) typically during the daylight hours and limited to times when specific meteorological conditions exist (e.g., no cloud cover for satellites; specific atmospheric stability and wind speed ranges for aerial measurements).” EPA further states that “[t]he data provided by some of these technologies are at large spatial scales, with limited ability to disaggregate to the facility- or emission source-level and have high minimum detection limits.”⁹

This is not an accurate description of most *continuous monitoring* systems, which can be installed at or near individual pieces of equipment and – when operating normally – are functioning at all times and under most ambient conditions.

In contrast to periodic screening methods, such as satellite or aerial surveys, continuous monitoring systems can entail a network of sensors that are deployed in close proximity to fugitive emissions components throughout a facility, enabling real-time leak detection with a high degree of accuracy. These sensors survey for leaks at very short intervals, often within a matter of seconds or minutes. Continuous monitoring systems are capable of both achieving low minimum detection sensitivities *and* disaggregating data to the emissions source-level (rather than simply indicating the presence of a leak over a large area). We therefore suggest EPA consider continuous monitoring as a separate category instead of as a “top-down” technology.

Allowing the use of continuous monitoring systems to conduct equipment surveys under Subpart W would enhance consistency among regulatory programs and further incorporate empirical data in GHG reporting.

By excluding the use of continuous monitoring systems from equipment leak surveys under Subpart W, EPA is creating inconsistencies with its proposed NSPS and EG OOOO rules for leak detection and repair (“LDAR”). The OOOO rules, as proposed in December 2022, allow for “alternative” methods for conducting leak surveys in lieu of OGI or Method 21, including the use of continuous monitoring systems.¹⁰ If such systems are excluded from the equipment leak survey methods under Subpart W, operators that have deployed continuous monitoring systems for their LDAR programs (for purposes of CAA Section 111) may be precluded from using those same systems to conduct emissions reporting for the purposes of the GHGRP.

⁹ 88 FR at 50,290-50,291.

¹⁰ *See, e.g.*, 87 FR at 74,744-746.

EPA observes that, under the proposed NSPS and EG OOOO rules, “if emissions are detected using one of these advanced technologies [i.e. “top-down” technologies], facilities would be required to conduct monitoring using OGI or Method 21 to identify and repair specific leaking equipment.”¹¹ In fact, the proposed OOOO rules specify that operators using continuous monitoring systems would conduct a “root cause analysis” when a leak is detected, which may or may not entail a follow-up OGI or Method 21 survey, depending on whether one is needed to pinpoint the leak.¹² Providing a pathway for the use of continuous monitoring systems to conduct equipment leak surveys would ensure that operators can use the same continuous monitoring systems under both the NSPS and EG OOOO rules and Subpart W without adding a requirement to conduct a follow-up OGI survey in order to report on those leaks.

Moreover, allowing continuous monitoring systems for leak surveys would enhance the use of empirical data under Subpart W, consistent with EPA’s mandate under the IRA. For example, when calculating emissions from equipment leaks, it appears that reporters must assume that the component (during the time that it was operational) has been leaking since the last Subpart W-compliant leak survey, or since the beginning of the reporting year.¹³ This approach makes sense when an operator is conducting periodic surveys, as there would be no leak data for the intervening time between surveys. However, when using continuous monitoring systems, an operator may have data that can specify the start and end of an emissions event. Operators using such systems for their LDAR programs should not, therefore, be required to assume that the component has been leaking since the last Subpart W-compliant OGI or Method 21 survey was conducted. Doing so would result in over-estimating the total emissions from those leaks, which would not only be inaccurate but also carry serious monetary implications under the Methane Waste Emissions Charge. Allowing the use of continuous monitoring systems would enable reporters to provide more accurate, empirical data with respect to the duration and total amount of leak emissions.

EPA should establish a process for approving the use of continuous monitoring systems for equipment leak surveys under Subpart W.

To ensure that continuous monitoring systems may be used to conduct equipment leak surveys under Subpart W, EPA should consider including a process by which operators or technology providers can seek EPA approval of these systems. To do so, EPA can specify in the relevant sections (e.g., proposed §§ 98.233(q)(1) and 98.234(a)) that operators may conduct equipment leak surveys using continuous monitoring systems that have been approved by the EPA. EPA can further detail the approval process by which operators and technology providers would demonstrate the specific capabilities and sensitivities of their continuous monitoring systems in detecting equipment source-level

¹¹ 88 FR at 50,348.

¹² See proposed § 60.5398b(c)(6).

¹³ See 88 FR at 50,405 (proposed § 98.233(q)(2)).

leaks, and identify any necessary adjustments in the emissions factors and assumptions used to calculate total emissions from those leaks.

Creating such an approval mechanism is not without precedent in the GHGRP. Under Subpart E, for example, with respect to calculating emissions from Adipic Acid Production, reporters may “[r]equest Administrator approval for an alternative method of determining N₂O emissions.”¹⁴ EPA included this provision in the final rule for Subpart E in response to comments requesting that EPA allow for the use of continuous emissions monitoring systems (“CEMS”) to directly measure N₂O flow.¹⁵ EPA should do the same here. Similarly, in the proposed NSPS and EG OOOO rules, EPA included an “alternative test method approval” process by which technology providers and operators can seek EPA approval of new leak detection methods, including continuous monitoring systems. This process allows parties to demonstrate the capabilities of such systems under certain operating conditions and to establish parameters for their use.¹⁶

While allowing use of continuous monitoring systems to conduct equipment leak surveys is something that EPA should consider implementing now, EPA can also structure the review and approval process so as to provide future pathways for other uses of continuous monitoring (e.g., for monitoring other sources, or for direct measurement of emissions) and different advanced monitoring technologies to serve various functions under Subpart W, as they develop over time.

Because there is such a wide variety of emissions monitoring technologies under development, creating a mechanism to approve new methodologies into the future would allow the GHGRP to keep pace with technological advancement without requiring notice and comment rulemaking for each new system. Doing so would facilitate greater consistency across regulatory programs and further incentivize the development and deployment of technologies that will enhance the accuracy of GHG reporting.

3. Longer-term stability of GHGRP is paramount given the importance of the program to the Methane Waste Emissions Charge.

Given the significant monetary consequences for methane emissions introduced by the methane charge, it is important to establish stability in the scope of GHG reporting that may be subject to that fee. As explained in the preamble to the initial GHGRP rule in 2009, the rule was originally established as an information-gathering mechanism in order to better inform policymakers, regulators, industry, and other stakeholders.¹⁷ EPA stated that it would use this information to inform

¹⁴ See 40 C.F.R. § 98.53(a)(2)

¹⁵ See Mandatory Reporting of Greenhouse Gases, 74 FR 56260, at 56295 (Oct. 30, 2009).

¹⁶ See 87 FR at 74,745-746.

¹⁷ See 74 FR at 56,264-56,265, 56,279 (stating, for example, that “[t]he goal of this rule is to collect accurate and consistent data of sufficient quality to inform future CAA policy and regulatory decisions”).

the development of future policies and regulations under the CAA, such as whether to include new sources under “New Source Performance Standards.”¹⁸ Subpart W itself was incorporated into the GHGRP for this purpose as well — including, for example, to “assist[] in the development of emissions reduction regulations in the petroleum and natural gas industry.”¹⁹

The GHGRP is a critical information-disclosure and policymaking tool, which benefits from continuous improvement and updates to produce accurate and reliable information. However, because it was not established as a program with direct regulatory or financial consequences, frequent changes in definitions and methodologies did not create direct monetary ramifications for reporters nor explicitly impact decisions concerning long-term investments in infrastructure and technology.²⁰

For the first time, however, the methane charge will shift the purpose of the GHGRP beyond just information-gathering, and establish a direct monetary charge based on the emissions reported under Subpart W.²¹ Given the significance in this shift in the nature and consequences of Subpart W reporting, and the investments and operational planning decisions that will be made by facility operators in relation to the methane charge, it is important that there is long-term stability regarding the types of sources covered by Subpart W and how emissions calculations are performed going forward. We hope EPA considers this as it develops the final Subpart W rule and with respect to the implementation of the methane charge.

4. Conclusion

bp appreciates the opportunity to offer comments and suggestions on this proposal and we look forward to working collaboratively with EPA on this rulemaking effort. Should you have any questions, please contact me at Downey.Magallanes@bp.com or Isabel Mogstad at Isabel.Mogstad@bp.com.

Sincerely,

/s/ Downey Magallanes

¹⁸ See 74 FR at 56,265; see also 74 FR 16,446, at 16,456 (Apr. 10, 2009) (preamble to the GHG reporting proposed rule) (stating that the purpose of establishing the GHGRP is to “[o]btain data that is of sufficient quality that it can be used to support a range of future climate change policies and regulations...”).

¹⁹ See Mandatory Reporting of Greenhouse Gases: Petroleum and Natural Gas Systems, 75 FR 74,458, at 74,460 (Nov. 30, 2010).

²⁰ See EPA, “Subpart W Rulemaking Resources,” <https://www.epa.gov/ghgreporting/subpart-w-rulemaking-resources> (listing the thirteen rulemakings to revise Subpart W since it was first incorporated into the GHGRP in 2010).

²¹ See 42 U.S.C. § 7436(c).

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BP America Inc. Comments Re: Supplemental Proposal Regarding Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review

Dear Sir/Madam:

BP America Inc. is pleased to submit comments in support of the Environmental Protection Agency's ("EPA's") supplemental proposal ("Proposal") to reduce methane emissions from oil and gas operations.

I. INTRODUCTION

bp commends EPA for advancing new rules aimed at reducing methane emissions from new, modified and existing sources. bp has been, and remains, unequivocal in its support for the direct federal regulation of methane emissions from the oil and gas industry across the value chain.¹ Regulation of new, reconstructed, modified and existing sources of methane emissions by EPA is the right thing to do for the environment, for our business, and for domestic and global energy security.

bp seeks to provide the world with secure, affordable, and lower carbon energy. bp's purpose is to reimagine energy for people and our planet. Our ambition is to become a net-zero company by 2050 or sooner, and to help the world get there, too. We aim to actively advocate for policies that advance net zero.

¹ "bp" is used interchangeably herein to refer to BP p.l.c. or any subset of the BP group of companies.

bp has a 150-year history in America and is committed to the US for the long-term. bp has a larger economic footprint in the US than in any other country – it has invested more than \$140 billion here since 2005. bp's business activities support about 245,000 American jobs and contributed about \$60 billion to the national economy in 2021. bp is the largest marketer of natural gas in North America and bp's US onshore oil and gas business, bpx energy ("bpx"), operates sizeable acreage positions in Texas and Louisiana.

This letter builds on the comments we submitted in January 2022 to the initial proposed rule and expands on themes including: (1) the importance of harnessing and incentivizing the use of advanced technologies; (2) working to eliminate routine flaring and reduce all flaring where feasible; and (3) leveraging high-quality, validated third-party data to safely reduce emissions.²

As detailed in the specific comments section, bp recommends, among other things, that EPA design the final rule to:

- Expand the framework for continuous monitoring to allow for systems that utilize concentration-based action levels in addition to those that derive an estimated mass emissions rate, in order to more accurately reflect the underlying technology of such systems and establish a performance-based and technology-agnostic framework that incentivizes widespread deployment of continuous monitoring systems.
- Allow continuous monitoring systems to qualify under the periodic screening alternative and amend various requirements applicable to the operation of continuous monitoring systems to provide more reasonable standards that better reflect their real-world deployment.
- Remove the requirement that continuous monitoring or periodic screening systems be "commercially available" to qualify as alternative test methods, which is unnecessary, likely to disincentivize investment in such systems, and a departure from the treatment of new technologies under the Clean Air Act ("CAA").
- Further efforts to eliminate routine flaring and reduce non-routine flaring and consider defining those terms to account for circumstances in which flaring might be used to combust emissions that would otherwise be vented.

² https://www.bp.com/content/dam/bp/country-sites/en_us/united-states/home/documents/who-we-are/us-advocacy/2022/bp%20Comments_EPA-HQ-OAR-2021-0317.pdf

- Revise the Super-Emitter Response Program to (1) clarify EPA’s role in the program and the legal authority on which it relies to create a third-party program; (2) further define the third-party notification and operator response process to account for planned, as well as unplanned, emissions events; and (3) foster accountability and transparency of all SERP participants by creating a communications registry, publishing an annual report, and requiring third parties to disclose the facilities they are surveying and provide data on the absence of emissions events.

II. CONTINUOUS MONITORING

bp strongly supports the inclusion of a robust pathway for continuous monitoring in the final rule. Continuous monitoring technology has the potential to shift the paradigm in methane detection and achieve significant methane emission reductions. Therefore, we urge EPA to consider the environmental and operational benefits of continuous monitoring in the broadest possible terms, so as not to limit innovation or diminish the impact of these technologies. While we appreciate EPA’s effort in this Proposal to create a pathway for continuous monitoring, we are concerned that the supplemental proposal may be too narrow and overly prescriptive, and that it does not sufficiently facilitate nor incentivize the adoption of continuous monitoring technology. EPA should establish a technology-neutral framework that allows for multiple types of continuous monitoring systems, rather than implicitly single out a handful of the technologies available today, and provide a flexible pathway for demonstrating that a particular system meets the regulatory criteria for continuous monitoring as an alternative to the best system of emission reduction (“BSER”).

Specifically, in the final rule, we recommend that EPA:

1. Amend the definition and framework for continuous monitoring to allow for continuous monitoring systems that may require action based on the concentration of emissions *as well as* those that may require action based on the rate of emissions, thereby making a distinction between the underlying technology and continuous monitoring systems that use algorithms to produce an emission rate estimate;
2. Allow continuous monitoring systems to qualify as periodic screening systems;
3. Modify the conditions that determine operational downtime and “out-of-control” monitors used in continuous monitoring systems;
4. Define the “root cause analysis” required for continuous monitoring systems to clarify that it is describing an investigation into the source of detected emissions;
5. Amend the information required in the fugitive emissions plan to reflect the potential for deployment of continuous monitors within the fenceline;

6. Remove the requirement that an alternative test method, such as a continuous monitoring system, must be “commercially available” to be approved for use under the rule; and
7. Clarify that the “daily verification checks” required for continuous monitoring systems include remote verifications.
 - A. **EPA should expand the framework for continuous monitoring to allow for concentration-based action levels and detection thresholds.**

The supplemental proposal defines continuous monitoring as “the ability of a measurement system to determine and record a valid methane mass emissions rate of affected facilities at least once for every twelve-hour block.” § 60.5398b(c)(1). EPA also explains that the continuous monitoring framework is premised on the NESHAP fenceline monitoring work practice standard. As such, the proposed framework requires that a qualifying continuous monitoring technology, deployed on the fenceline of a facility, be capable of calculating the *rate* of methane emissions (in kg/hr) as well as a rolling 7- and 90-day average rate of emissions over time. It then sets short- and long-term action levels (in kg/hr) for these rolling averages which, when exceeded, require a root cause investigation and potential repair.

By limiting this framework exclusively to systems that derive a mass emissions *rate*, EPA fails to account for how such technologies function and unduly excludes continuous monitoring systems that are inside-the-fenceline and may require action based on methane *concentration* data.³ EPA’s continuous monitoring framework must be flexible enough to allow parties to demonstrate that these types of alternative monitoring systems, which can be equally or more effective than the systems EPA proposes, qualify as a continuous monitoring alternative to BSER under the regulations.

bp understands that many continuous monitoring systems utilize the same type of underlying technology – a metal oxide sensor to take *concentration* readings of methane emissions in parts per million (“ppm”). These systems then apply a plume or inversion model to derive an estimated mass emissions *rate* (for example, in kg/hr) from the concentration data collected.⁴ This modeling incorporates a variety of additional data, such as wind speed and other meteorological information, into an algorithm that produces an estimated rate. These systems, therefore, are not directly measuring the

³ For example, bpx is trialing and deploying continuous monitoring systems at its facilities today *within* the fenceline, which monitor concentrations of methane and have the capability to send a notification when concentrations exceed pre-determined thresholds with a target accuracy of 95%. Such inside-the-fenceline solutions allow sensors to be placed in close proximity to the emissions source, enhancing both reliability and accuracy, thereby enabling concentration-based action levels.

⁴ Even flue gas sensors in a stack, which are continuously monitoring for SO₂ or NO_x, measure concentration and convert that to a mass rate using other data.

mass emission rate of a methane leak, but rather apply modeling with nontrivial uncertainties to derive an approximated mass emissions rate.

The primary use case and value of a continuous monitoring system is to enable operators to quickly and accurately identify a leak and implement timely corrective action in response. Estimating the mass emissions rate of the leak is secondary to this objective. By deploying within the fenceline in close proximity to fugitive emissions components and focusing on concentration data, continuous monitoring systems should be able to identify anomalous emissions and enable corrective action with a high degree of accuracy, without the need for additional data. Broadening the framework for continuous monitoring to allow for the use of such systems would therefore better reflect a truly outcome-oriented and technology-agnostic approach that is focused on incentivizing a variety of advanced monitoring approaches that are capable of delivering effective methane emissions reductions.

bp urges EPA to broaden its continuous monitoring framework to allow technology providers and operators to use the same underlying continuous monitoring technology, *i.e.*, metal oxide-based sensors, but instead of requiring corrective action based on an inferred rolling average emissions rate, apply modeling to establish *concentration*-based action levels that are equivalent to the *rate*-based action levels EPA has identified. Similar to EPA's proposal, the corrective action would then be required when the rolling average of the detected methane *concentration*-levels exceeds the specified methane thresholds. As explained further below, because concentration levels are relative based on proximity to the source (*i.e.*, the same leak would provide different concentration readings depending on the location of the sensor), the equivalent concentration-based action levels would need to be based on a specific proximity of the sensors to the fugitive emissions source. In essence, this type of system would provide the same core function as the continuous monitoring systems envisioned in EPA's proposed framework but would do so based on readings of methane concentration levels.

Operators and technology providers should be given the opportunity to demonstrate that these systems are at least as effective as (if not more effective than) the continuous monitoring technology that EPA appears to have in mind in its supplemental proposal. Just as plume/inversion modeling is used to convert concentration data produced by metal oxide sensors into an estimated emissions rate, the same modeling techniques can be used to derive a concentration-based action level (in ppm) that is equivalent to the rate-based (kg/hr) action levels identified by EPA. Doing so would require incorporating the specific conditions of the continuous monitoring system's deployment into the model. Those conditions include, for example, proximity to the source, the layout of the equipment, and other factors that affect methane dispersion.

To facilitate the development and deployment of concentration-based, continuous monitoring systems, bp recommends that EPA expand the framework for continuous

monitoring to allow applicants to seek approval of concentration-based action and detection thresholds. The applicant would be required to:

1. Apply a plume or inversion model to the applicable rate-based action level identified by EPA in order to calculate an equivalent concentration-based action level that is based on a certain deployment of the sensors in relation to the emissions sources; and
2. Demonstrate through FEAST modeling (or other well-accepted modeling tools) that this concentration-based continuous monitoring system will produce methane emissions reductions that are equivalent to or better than the rate-based continuous monitoring system in EPA's supplemental proposal.

Operators and technology providers should be able to make this demonstration as part of the 270-day alternative test method approval process. EPA should also require that such systems meet a baseline confidence threshold for their claimed detection sensitivities, which should be at least as stringent as the 90% probability of detection required for periodic screening.

As the rationale behind its proposal, EPA explains that it is:

proposing methane emissions rate (*i.e.*, kg/hr) based action levels instead of methane concentration (*e.g.*, ppmv) based action levels (as in the Refineries NESHAP) in order to: (1) account for upwind contributions from other sites and meteorological effects and (2) allow the Agency to evaluate the methane emissions reductions achieved by this framework, thus providing for a metric to demonstrate equivalency with the proposed fugitive emissions monitoring and repair program and proposed covers and CVS requirements in NSPS OOOOb and EG OOOOc.⁵

As discussed above, however, modeling can be used to determine concentration-based action levels that are equivalent to the rate-based action levels proposed by EPA at a particular proximity to the emissions source. Requiring action when the rolling average methane concentration data exceeds those levels (from sensors at that location) would thus provide results that are the same as or better than EPA's proposed rate-based action levels. For example, an operator of a production facility could use the framework described above to determine, based on the proximity of its sensors to the fugitive emissions sources, that detecting a 90-day average concentration level of "X" ppm—at that location—is equivalent to detecting a 90-day average leak of 1.6 kg/hr. An investigation and repair response to exceedances of the "X" ppm-based threshold would thus provide an equivalent or better response to the currently proposed continuous monitoring framework.

⁵ 87 FR at 74,744.

With regard to EPA's first point quoted above concerning the impacts of wind and other meteorological conditions, bp is concerned that EPA's presumptions about rate-based monitoring systems overstate the relative reliability of that approach in a way that undervalues concentration-based monitoring. While the modeling required to convert concentration data from metal oxide sensors into an estimated emissions rate does incorporate data on wind speed and other meteorological conditions, this can also introduce significant uncertainty, and *EPA has not specified in the supplemental proposal a baseline confidence threshold for the rate estimates derived from these systems.* Further, we are concerned that the impact of meteorological conditions on emissions estimates produced by continuous monitors is not sufficiently understood, and such conditions (*e.g.*, very high or very low wind speeds) can significantly affect the reliability of inferring an emissions rate, which may produce misleading measurements. As such, the concern noted by EPA regarding upwind contributions and meteorological effects is not entirely alleviated by the use of a mass emissions rate.

Similarly, as EPA notes in the preamble, wind speed and other meteorological conditions can also significantly affect the detection capabilities of OGI cameras. *See* 87 FR at 74,840. To account for this, the supplemental proposal establishes an "operating envelope" in which OGI surveys can be performed based on field conditions, but this envelope is based on whether three out of four (or 75% of) observers using OGI cameras can identify emissions. Ground-based OGI and, consequently, BSER, therefore involves a considerable degree of uncertainty due to wind and other meteorological conditions. Continuous monitoring systems also have an operating envelope of field conditions outside of which the assumptions of the inversion modeling break down, leading to significant uncertainty and potential bias. This operating envelope is less-established in literature than that of OGI cameras and may vary from system-to-system. Without similar parameters, continuous monitoring systems may provide rate estimates outside of the operating envelope in which those estimates are more reliable. EPA therefore appears to overstate the reliability of both continuous monitoring systems that estimate mass emissions rates and OGI cameras (which constitute BSER). While there is certainly value to continuous monitoring technology that can provide an emissions rate, the narrow focus on this type of system unduly excludes the possibility of using the same technology to provide an equally effective LDAR program based on concentration levels.

In sum, EPA should broaden the framework for continuous monitoring to provide a pathway for the use of continuous monitoring systems with concentration-based action levels that are equivalent to the rate-based action levels in EPA's proposal. Because the exact concentration thresholds will depend on the specific deployment characteristics of the sensors (*i.e.*, proximity to the source), EPA should allow, in the test method approval process, for the use of plume/inversion modeling to determine the appropriate concentration thresholds, and for the use of FEAST (or similar) modeling to demonstrate equivalent emissions reductions. The operator would then be required to deploy these systems according to the specific location parameters for the sensors in relation to the emissions sources, as established in the modeling. EPA should also amend the

continuous monitoring framework to require that all systems demonstrate a baseline confidence level in meeting the required detection thresholds, which is at least as stringent as the 90% probability of detection required for periodic screening, in order to alleviate concerns regarding the accuracy of the system and to ensure a level playing field for all continuous monitoring technologies.

B. EPA should make additional amendments to the continuous monitoring framework to more accurately reflect how such systems operate.

EPA should consider reconceptualizing “continuous monitoring” as “high-frequency monitoring,” which more accurately reflects how these technologies operate. EPA’s proposed definition of “continuous monitoring,” for example, does not actually require a fully continuous monitoring system, but merely requires taking a reading once every twelve hours. As such, *high-frequency*—rather than *continuous*—monitoring more accurately describes this type of technology.

Second, while monitoring emissions at least once every twelve hours provides a significantly higher frequency of monitoring than either BSER or the proposed periodic screening matrices, it is bp’s understanding that most continuous monitoring systems in use today monitor emissions at much shorter intervals than a twelve-hour block. To reflect this fact, EPA might consider whether to revise the definition of continuous monitoring to be a system that monitors methane emissions more frequently, e.g., at least once every three hours. To the extent that EPA has any concerns about the equivalence of the concentration-based continuous monitoring systems described above, EPA could consider increasing the minimum monitoring frequency for such systems to qualify under the alternative continuous monitoring framework.

C. Continuous monitoring systems should also qualify as periodic screening systems.

In addition to broadening the continuous monitoring framework as described above, EPA should make clear that continuous monitoring systems may also qualify under the alternative *periodic screening* framework, provided they are capable of meeting either the rate-based detection thresholds provided in the periodic screening matrices, or the concentration-based equivalent of those thresholds, at the specified 90% probability of detection.

As noted previously, continuous monitoring systems are capable of providing site-wide snapshots of emissions, but at a much higher frequency than the periodic screening matrices require. Operators should therefore be able to use this type of technology to satisfy the requirements of the periodic screening alternative to BSER, provided that the detection sensitivities can be satisfied.

D. EPA should modify the conditions that determine operational downtime and inoperability.

The supplemental proposal defines “operational downtime . . . as a period of time for which *any* monitor fails to collect or transmit data or *any* monitor is out-of-control.” 40 C.F.R. § 60.5398b(c)(1)(iii)(B) (emphasis added). The supplemental proposal also provides that “[a] monitor is out-of-control if it fails ongoing quality assurance checks, as specified in the alternative test method approved under paragraph (d) of this section, or if the monitor output is outside of range.” § 60.5398b(c)(1)(iii)(C). EPA should amend these provisions to establish a more reasonable standard for operational downtime and inoperability that better accounts for the networked approach that many continuous monitoring systems utilize, whereby multiple sensors are deployed at each facility. For example, multiple sensors may be deployed for one fugitive emissions component; if one sensor stops working, that does not mean that the monitoring system for the component is down or “out-of-control,” and much less so for the broader network of sensors throughout the site.

Creating a reasonable standard for inoperability is critical because the supplemental proposal limits operational downtime to a rolling annual average of 10 percent. §60.5398b(c)(1)(iii)(A). Defining operational downtime as any time *one* sensor is inoperable in a network of multiple sensors will create an unreasonable standard for operators in the deployment of continuous monitoring technology and may disincentivize operators from deploying more sensors despite the fact that the use of more sensors provides greater coverage and accuracy. Instead, bp recommends that, for the purposes of this rule, EPA define operational downtime to mean that fewer than 75 percent of the sensors at the facility are functioning. Specifically, EPA should amend § 60.5398b(c)(1)(iii)(B) to define “operational downtime . . . as a period of time for which **more than 25 percent of the monitors at the facility fail** to collect or transmit data or **are** out-of-control.”

EPA should similarly amend the definition of “out-of-control” to acknowledge that self-monitoring systems can provide data necessary to perform “ongoing quality assurance checks” without the need for constant human intervention. One of the advantages of advanced methane detection technology is to reduce the frequency of human intervention in the field for purposes of methane monitoring and detection, and thus to improve reliability, safety, and performance. As such, continuous monitoring systems can provide automated quality assurance mechanisms to ensure that the system is functioning properly and issue alerts when issues arise. Overreliance on human intervention for quality assurance is both inefficient and unduly burdensome on operators, and thereby discourages the deployment of continuous monitoring systems. EPA should therefore amend § 60.5398b(c)(1)(iii)(C) to read: “A monitor is out-of-control if it fails ongoing quality assurance checks, as specified in the alternative test method approved under paragraph (d) of this section **and which may include automated quality assurance checks performed by the monitoring system**, or if the monitor output is outside of range.”

E. EPA should amend the information required for the fugitive emissions monitoring plan.

The supplemental proposal requires, for purposes of the alternative continuous monitoring framework, that operators develop a “fugitive emissions monitoring plan.” § 60.5398b(c)(2). This plan must include the “[n]umber and location of monitors. If the continuous monitoring system uses open path technology, you must identify the location of any reflectors used. These locations should be identified by latitude and longitude coordinates in decimal degrees to an accuracy and precision of five decimals of a degree using the North American Datum of 1983.” § 60.5398b(c)(2)(iv). EPA should amend this provision to reflect the fact that sensors in a networked continuous monitoring system deployed *within* the fenceline can be moved over the course of operations.

As part of the normal course of operations, the location of sensors deployed within the fenceline can move when, for example, a workover rig is deployed or a tank is moved. EPA should therefore amend this provision to require (a) the initial location of the sensors, and then (b) that operators maintain documentation of the location of their sensors as they shift over the course of operations, rather than requiring an update to the fugitive emissions plan. The documentation of the change in location of sensors can be made available to EPA upon request.

EPA should amend § 60.5398b(c)(2)(iv) to provide that the fugitive emissions monitoring plans must include the “[n]umber and **initial** location of monitors. If the continuous monitoring system uses open path technology, you must identify the location of any reflectors used. **If the location of the monitors changes as part of the normal course of operations, the operator should keep records of these changes which must be made available to the EPA upon request.** These locations should be identified by latitude and longitude coordinates in decimal degrees to an accuracy and precision of five decimals of a degree using the North American Datum of 1983.”

III. ALTERNATIVE TEST METHOD APPROVAL

A. EPA should remove the requirement that alternative test methods such as continuous monitoring systems be “commercially available.”

The supplemental proposal provides, as a qualification for approval of an alternative test method (*e.g.*, a continuous monitoring system), that “[t]he underlying technology or technologies must be commercially available, meaning that it has been sold, leased, or licensed, or offered for sale, lease, or license to the general public.” § 60.5398b(d)(2)(iii). EPA should remove the requirement that the underlying technology be commercially available in order to qualify as an alternative test method from the final rule. This requirement is unduly burdensome on operators that have developed or may develop their own proprietary advanced monitoring capabilities. Further, the requirement has no clear statutory or regulatory grounding and is a departure from EPA’s approach to

encouraging technological advancement in emissions controls in other contexts under the CAA.

Neither the preamble nor the regulatory text provides further guidance on why EPA has proposed to require that the underlying technology be commercially available. A review of the statutory standards for the adoption of advanced emission monitoring technology and other regulatory provisions addressing this type of issue suggests that this is a departure from those standards and EPA's approach in other contexts.

For example, in determining what type of emissions reduction method and technology constitutes BSER, the CAA requires that EPA consider whether the system is "adequately demonstrated." CAA § 111(a)(1). The "adequately demonstrated" standard, however, does not include a *commercial* availability requirement. Rather, to be "adequately demonstrated," EPA looks for whether the technology "has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control.'" 80 Fed. Reg. 64661, 64720 (Oct. 23, 2015) (Clean Power Plan) (quoting *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973)).

Similarly, in EPA's guidance on what constitutes the "best available control technology" ("BACT") for controlling CO₂ emissions, EPA explains that "a control option is 'available' if it has a potential for practical application to the emissions unit and the regulated pollutant under evaluation. Thus, even technologies that are in the initial stages of development and deployment for an industry, such as carbon capture and storage, can be considered 'available' as that term is used for the specific purposes of a BACT analysis under the [prevention of significant deterioration] program."⁶

The commercial availability requirement will restrict investment and development in advanced monitoring technologies by excluding innovation that could be initially incubated by an operator for proprietary use or discourage investment by operators that may wish to keep such technology proprietary. This requirement would create an unnecessary burden of having to take the additional step of making such technologies available for use by other parties, which not only entails complicated business considerations but also distracts from the primary purpose of promoting innovation in this field.

B. EPA should clarify that "daily verification checks" include remote verification.

The supplemental proposal provides that, as part of the alternative test method approval process, an applicant must provide a "detailed description of the alternative testing procedure(s)" which "should include objectives to ensure the detection

⁶ Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production (March 2011), *available at* <https://www.epa.gov/sites/default/files/2015-07/documents/bioguide.pdf>.

threshold(s) required in paragraph (d)(3)(iii) of this section are maintained, including procedures for a daily verification check of the measurement sensitivity under field conditions.” § 60.5398b(d)(3)(v). EPA should amend this provision to specify that verification checks can be conducted remotely and through automated processes that ensure devices are running properly. As noted above, one of the benefits of utilizing advanced methane detection technologies is to reduce the frequency of human intervention in the field, which promotes both safety and efficiency. EPA should therefore amend § 60.5398b(d)(3)(v) to provide that the detailed description of the alternative test method procedure must include “procedures for a daily verification check, **which may be performed remotely**, of the measurement sensitivity under field conditions.”

EPA should also clarify that this provision does not require daily calibration of the sensors, as that requirement would be unnecessary and unduly burdensome on operators. The purpose of calibration is to ensure that the measured concentration data are accurate. Research has shown that metal oxide sensors maintain acceptable accuracy for long periods of time without requiring additional calibration, and systems using such sensors can regularly *verify* (as specified in this provision) that the sensors are reading low levels of methane to ensure that they are functioning properly. Rather than prescribe an approach to calibration for all systems, operators should have the flexibility to demonstrate how often calibration is required to achieve a particular accuracy of detection based on the continuous monitoring system in use.

IV. FLARING

bp unequivocally supports EPA’s effort to eliminate routine flaring and minimize non-routine flaring, and is pleased EPA is further soliciting comment on control device efficiency and operation of flares. In April 2021, bp announced its intention to eliminate routine flaring in its US onshore operations by 2025. To achieve this goal, all newly constructed bp operated well sites are tied into gas delivery pipelines from start-up, and we do not bring new wells online unless the wells have access to a gas pipeline. We are also building centralized production facilities and converting legacy wells from high pressure systems to low pressure gas gathering systems to tie in more of our existing production into centralized facilities.

In our January 2022 comment letter on EPA’s previous proposal, bp noted that since taking operational control over BHP’s oil and gas assets in the Texas Permian Basin in 2019, bpx has reduced flaring intensity in the basin from 16% in the fourth quarter of 2019 to less than one percent today.⁷ This downward trend has continued since our previous comments, which is attributable to the actions and investments we continue to take to address the efficiency and operations of our flares. Notably, we

⁷ bp, Comment Letter on Proposed Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (Jan. 31, 2022), https://www.bp.com/content/dam/bp/country-sites/en_us/united-states/home/documents/who-we-are/us-advocacy/2022/bp%20Comments_EPA-HQ-OAR-2021-0317.pdf.

install air assist to improve the combustion efficiency of our flares (above 95% control efficiency as proposed in §60.5377b(b)), and thermocouple sensors integrated with automation on all flare stacks to notify bp operations teams of unlit flares. Further, all bpx flares have auto-igniters to remotely reignite flames that may have extinguished.

In the final rule, we urge EPA to consider defining routine and non-routine flaring to account for circumstances where flaring devices are being used to combust emissions that would otherwise be vented, particularly where EPA seeks to limit the scope of safety flaring for non-routine purposes by narrowly defining permissible scenarios for safety flaring.

V. SUPER-EMITTER RESPONSE PROGRAM

bp appreciates the effort by EPA to consider and incorporate feedback on the November 2021 proposed community monitoring program to inform the currently proposed Super-Emitter Response Program. We are encouraged that EPA appears to have begun addressing feedback on critical issues including: the role EPA should play in a third-party program; the importance of safety and minimizing incentives for untrained, non-industry personnel to be out in the field; and incorporating operational and technical requirements for validated third parties.

bp encourages the safe, accurate, and rapid identification and mitigation of large methane emissions events. If there are reliable, high-quality data indicating a significant methane leak at a bp facility, we want to know about it. bp therefore supports EPA's effort to design a Super-Emitter Response Program (SERP) but urges EPA to revise the program so that it: (1) reconceptualizes the respective role of third-party monitors and EPA, so that EPA retains its oversight authority; (2) incentivizes operators to respond to validated third-party notifications by encouraging responsiveness and protecting corrective actions; and (3) fosters accountability and transparency from all parties involved.

A. EPA should leverage its existing authorities in order to design a more legally defensible program.

bp supports the concept of a Super-Emitter Response Program so long as EPA (or a state with delegated authority) maintains a meaningful oversight role, ensures data quality and reliability, and retains discretion and accountability relating to compliance and enforcement.⁸

⁸ In its proposal for reviewing third-party monitoring and detection technologies, EPA recognizes the importance of ensuring that "data quality objectives" are met. 87 Fed. Reg. at 74746. EPA should apply that same principle in reviewing and validating third-party monitoring data before that data is publicly reported. EPA should define its "data quality objectives," be transparent in how it plans to implement

Under the current proposal, “EPA-approved” private third parties are authorized to “provide credible, well-documented identification of a super-emitter emissions event using one of several permitted technologies and approaches.” 87 Fed. Reg. at 74707. The EPA-approved third party is then charged with directly notifying the responsible owner or operator and making a report available to EPA. EPA would then publish these third-party notifications/reports online. *Id.* at 74750. And third parties may also publish their reports/notifications online via their own websites though “EPA would generally not verify or authenticate the information in third party reports prior to posting.” *Id.* Upon notification by the third party, the operator’s obligation of “prompt investigation and remediation of the event” is triggered. *Id.* at 74752. Operators must perform a root-cause analysis within 5 days of notification and take corrective action within 10 additional days. *Id.* at 74702, 74751-52. Where operators determine that corrective actions may take more time, operators may, within 30 days of notification, “develop and submit a corrective action plan that describes the corrective action(s) completed to date, additional measures that [the operator] propose[s] to employ to reduce or eliminate the emissions, and a schedule for completion of those measures.” *Id.* at 74751. Once the operator has mitigated the emissions event (or determined that all necessary and appropriate actions have been taken and no additional action is needed), operators must submit a written report to EPA (and delegated state authority) “within 15 days of completing the root cause and corrective action.” *Id.*

bp is concerned that, as written, EPA’s proposed delegation to private third parties in the SERP could be construed as exceeding EPA’s legal authority. EPA contends that it has the statutory authority to create the SERP under Section 111 of the CAA, 42 U.S.C. § 7414, but EPA does not establish how Section 111 authorizes EPA to delegate authority to third parties the ability to trigger new regulatory obligations or become involved in enforcement and compliance issues. Courts have suggested that delegations of such authority by agencies to private entities are “assumed to be improper absent an affirmative showing of congressional authorization.”⁹ The D.C. Circuit has particularly expressed concern that “delegation to outside entities increases the risk that these

these objectives in reviewing both third-party technologies and third-party data, and then ensure that third-party data meet these standards before disseminating these data to the public. *See also* sections V.B.1 and V.C.1.

⁹ *See U.S. Telecomm Ass’n v. FCC*, 359 F.3d 554, 565 (D.C. Cir. 2004) As the Court explained: “the cases recognize an important distinction between subdelegation to a subordinate and subdelegation to an outside party. The presumption that subdelegations are valid absent a showing of contrary congressional intent applies only to the former. There is no such presumption covering subdelegations to outside parties. Indeed, if anything, the case law strongly suggests that subdelegations to outside parties are assumed to be improper absent an affirmative showing of congressional authorization.” *See also Gentiva Healthcare Corp. v. Sebelius*, 723 F.3d 292 (D.C. Cir. 2013); *cf. Ass’n of Am. R.Rs. v. U.S. Dep’t of Transp.*, 721 F.3d 666, 671 (D.C. Cir. 2013) (noting that, although a statute may not “empower[] private parties to wield regulatory authority[,] [s]uch entities may . . . help a government agency make its regulatory decisions”).

parties will not share the agency's 'national vision and perspective,' and thus may pursue goals inconsistent with those of the agency and the underlying statutory scheme.¹⁰

bp is concerned that while EPA claims to maintain control over the "decision-making elements" of the program, *see* 87 Fed. Reg. at 74750-51, certain features of the rule suggest otherwise. For example, to the extent the operator's obligation is triggered by notification from the third party without meaningful oversight/involvement EPA, it raises the question whether EPA has delegated authority to determine when (and whether) a regulatory obligation arises and the operator must act. Further, the fact that the third-party report to EPA may be made available to the public online via the third party's own platforms, but that "*EPA would generally not verify or authenticate the information* in third party reports prior to posting," raises similar concerns. *Id.* at 74750 (emphasis added); *see also id.* at 74751.

This does not mean that EPA should abandon its efforts to promulgate a Super-Emitter Response Program, or that private third parties have no role to play in identifying methane leaks. To the contrary, if it is carefully crafted, bp believes that EPA can implement a scheme in which qualified, certified third parties can play an important role in gathering and disseminating information about methane emissions, so that responsible operators may use that information to improve performance, reduce emissions and protect communities, and so that EPA (or states with delegated authority) may use that information to bolster their oversight and enforcement of existing methane standards and regulations.¹¹

B. Suggested revisions to SERP in order to realize program goals and improve program durability.

1. EPA's third-party approval process should mirror industry standards and ensure responsible use and disclosure of data.

bp supports agency approval of third parties and technologies in order to provide "credible, well-documented identification of super-emitter emissions events." 87 Fed. Reg. at 74707. Consistent with EPA's current proposal, we agree that potential third-party participants must be carefully reviewed, approved, and certified by EPA. However, EPA must go further and provide more specificity with regard to the validation process. At a minimum, EPA should ensure that approved third parties are familiar with GIS

¹⁰ *U.S. Telecom Ass'n*, 259 F.3d at 555-56 (quoting *Nat'l Park & Conservation Ass'n v. Stanton*, 54 F. Supp. 2d 7, 20 (D.D.C. 1999)).

¹¹ Data and information are important inputs to aid transparency, dialogue and trust-building. bp was an early industry participant in the Environmental Defense Fund's ("EDF") Permian Methane Analysis Project ("PermianMAP"). Under this initiative, EDF—a non-profit environmental advocacy group—took periodic methane measurements in the Delaware Basin of the Permian and published this information on a public website. bp engaged regularly with EDF to review PermianMAP data and took any necessary mitigation actions. Engaging constructively with EDF to share feedback and insights as a data-user was a valuable way to enhance our programmatic leak detection and repair efforts.

systems; demonstrate experience implementing methane measurement campaigns; and have the ability to process methane data in a timely and transparent manner.¹²

2. Third parties should be required to simultaneously notify EPA and any potentially responsible operators.

bp is committed to the prompt investigation and mitigation of large-scale emissions events. As currently proposed in the SERP, operators would only be notified if a super-emitter event has been observed. But an important and difficult part of understanding emissions in upstream oil and gas operations is the *duration* of an emission event. Knowledge that there was "No Emission" can thus be equally as beneficial as knowledge of an emission event. Operators should be able to leverage the SERP data as another meaningful tool within their emissions reduction portfolios. In light of this, bp urges EPA to consider revising the program so that whenever a third party surveys an operator's facilities, the third party should be required to provide the data to the operator regardless of whether a super-emitter event was detected.¹³

EPA should further revise the program so that when a third party *does* detect and confirm a super-emitter event, the third party should be required to report these data within a short period of time (*e.g.*, 48 hours) of discovering the event to (a) all operators known to the third party who could potentially be responsible for the emissions event and (b) EPA.¹⁴

EPA should then promptly confirm receipt of the data and notify all operators potentially implicated by the super-emitter event, including any such operators that did not receive notice directly from the third party. Playing this role is one way in which EPA could maintain its decision-making authority, oversight responsibility, and accountability under the program.

3. The operator's response should distinguish between fugitive emissions and anticipated events.

¹² Because super-emitter events are based on an emissions *rate* (i.e., of 100kg/hr or greater), there is an even greater need for third parties to transparently process and disclose their data given the uncertainties inherent in emissions rate estimation.

¹³ In addition, we recommend that EPA require approved third parties to provide a list of (1) all operators they surveyed on a given day and (2) a count of facilities they surveyed for each operator. This would increase transparency and assurance that specific operators are not being unfairly targeted, and that similar percentages and/or counts of operators' assets are being covered. Consider, for example, a third-party notifier that only surveys one operator's facility or a handful of operators' assets. Without a list of the other facilities surveyed, this might give the public the misimpression that only a handful of operators have emissions, when in fact, other operators' sites were never surveyed.

¹⁴ As discussed below, bp urges EPA to create a SERP operator registry to help facilitate communications between EPA, operators, and approved third-party notifiers.

bp supports EPA's proposal for operators to initiate a response to third-party notifications of a super-emitter event within 5 days. However, we believe it is important that the EPA clarify how operators address emissions from known operations and maintenance activity in the root cause analysis and corrective action plans.

To this end, we suggest that EPA revise the program to require that, within 5 days of notification from either a third party or EPA, operators should perform an *initial* evaluation of the data and make best efforts to confirm whether the event occurred at its site, and if so, whether the emissions were (a) caused by an anticipated, short duration event such as operations and maintenance activity at the site; or (b) unplanned / fugitive emissions. EPA could then structure the program along the following lines:

- If the operator's initial evaluation of the data indicates that a super-emitter event has not occurred at the operator's site, the operator could document this finding and report it to the EPA (or state with delegated authority). The operator's obligations under the SERP program would be complete.
- If the operator's initial evaluation indicates that the event was caused by a *scheduled* intermittent event from O&M activity, the operator could similarly be required to document this finding and report it to EPA (or the state). Again, the operator's obligations under the SERP program would be complete.
- If the initial evaluation of the data indicates that (a) the emissions were unplanned and (b) leak repair or other corrective action is required under EPA's regulations, the operator could then be required to determine and execute the appropriate corrective action, document the actions taken, and notify EPA (or the state) within the time frame set by regulation. If the operator deems that it is not feasible to act within that timeframe, the operator may be allowed to document the reasons for incomplete action and notify EPA (or the state) that more time is needed.

Key to these suggestions is that communications and decisions take place between the operator and the regulatory authority, not with the third party, and that there are clear off ramps and incentives provided for operators who can promptly evaluate data and take action, if needed.

4. EPA should structure the SERP to include a safe harbor for responsible operators that respond promptly.

The fact that a release of methane has been detected at a rate exceeding 100kg/hr does not necessarily mean that any standard has been exceeded or that any violation has occurred at any particular facility. It is also important that the program be designed to incentivize prompt, proactive actions on the part of operators. Therefore, we believe it is important that data provided by responsible operators to EPA in response to a third-party notice is not used punitively against the operators. In particular, EPA should consider revising the program so that any documents shared with EPA, for example, articulating corrective actions taken, are subject to a safe harbor provision that prevents EPA (or, to

the extent feasible, other entities) from using information in the document for purposes of enforcement, *e.g.*, a notice of violation (NOV) or a civil suit.

C. The SERP should foster accountability and transparency.

bp supports the creation of third-party programs that foster accountability and transparency. To achieve these goals, we encourage EPA to modify the SERP in three respects. We believe that EPA should: (1) publish an (aggregated) annual report instead of real-time data, drawing by analogy to programs like the Toxics Release Inventory (TRI) National Analysis website and other EPA annual reports;¹⁵ (2) create an operator register to facilitate program communications; and (3) require third parties to provide a list of all operators they surveyed on a given day and a count of facilities they surveyed for each operator.

1. An annual report would increase accountability and transparency by compiling and summarizing super-emitter emissions event data.

We suggest that, in lieu of the third-party reports called for by EPA's proposal, EPA consider preparing an annual report (potentially in coordination with an academic institution), that includes an aggregated overview of total, validated emissions events sent to EPA by third parties, consolidated at a localized level but not at the site level. We believe a consolidated, comprehensive annual report validated and published by EPA would better achieve EPA's goal of enhanced transparency by allowing operators, regulators, and community members to see – in the aggregate – how implementation of EPA's methane regulations and the SERP program have reduced the frequency of super-emitter emissions events.

We believe an annual report will allow time for data review/verification and quality assurance, consistent with other EPA annual reports whose purpose is to increase transparency and community access to environmental data. Furthermore, an annual report could also allow industry, communities, and other stakeholders to see regionalized trends over time. By contrast, publishing individualized, privately sourced reports about operators could have the opposite effect and be misleading to the public. This approach could shift attention to particular operators (many of whom may have taken prompt action or determined that no action was needed under SERP) merely because they were the focus of, or targeted by, third parties whose decisions may reflect a variety of priorities not necessarily in line with the priorities of EPA or the statute.

2. EPA should create an operator registry to facilitate communications between EPA, approved third parties, and operators.

¹⁵ See, *e.g.*, Toxics Release Inventory (TRI) National Analysis, EPA, <https://www.epa.gov/trinationalanalysis> (last updated May 2, 2022).

We also encourage EPA to create an online registry with official contact information provided by operators and certified third parties, to help facilitate communications between EPA, third-party notifiers, and operators. bp believes that a registry of operators and certified third parties is needed to ensure that all parties participating in the SERP can promptly and effectively communicate with each other. This registry could be created and maintained by EPA and be made available on EPA's website. Additionally, operators and third parties could be responsible for reviewing contact information annually and updating it as necessary.

VI. METHANE FEE

Timely finalization of a rule that provides clear, practicable standards for the industry is critical not only for achieving robust methane emissions reductions, but also for establishing business certainty with respect to the interplay between this rule and the methane emissions charge established by the Inflation Reduction Act ("IRA"). The IRA created, under the CAA, a new "waste emissions charge" that levies an annual fee on methane emissions for applicable facilities that exceed certain thresholds based on their reported methane intensity, beginning in 2024. CAA § 136(c). Importantly, Congress provided an exemption for facilities that are subject to EPA's final methane regulations under CAA §§ 111(b) and (d) once the applicable state implementation plans under EG OOOOc are approved by EPA and in effect. CAA § 136(f)(6)(A).

This exemption incentivizes the timely finalization of EPA's methane regulations and approval of state implementation plans, and the major investments that operators are making to ensure compliance with these new standards. It is therefore imperative not only for EPA to finalize the §§ 111(b) and (d) rules in a timely manner, but also for EPA to put in place a process and timeline for reviewing and approving state plans as efficiently as possible to ensure that the exemption is available to compliant facilities. In particular, EPA should ensure that state plans submitted pursuant to the proposed Section OOOOc (after the 18-month period allotted for states to develop those plans) are approved and effective by 2025 at the latest, so that there will be only one year (*i.e.*, 2024) in which the IRA fee is applicable without any safe harbor for facilities actively complying with the §§ 111(b) and (d) standards. In consideration of the aforementioned, bp supports EPA's efforts to finalize the supplemental proposal and implement a process for the expeditious approval of state plans.

VII. CONCLUSION

bp appreciates the opportunity to offer comments and suggestions on this proposal and we look forward to working collaboratively with EPA on this important rulemaking effort. Should you have any questions, please contact me at Downey.Magallanes@bp.com and Isabel Mogstad at Isabel.Mogstad@bp.com.

Sincerely,

/s/ Downey Magallanes

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