WSPA

September 22, 2020

Ms. Carey Bylin
Manager, Energy Section
Project Assessment Branch
California Air Resources Board
1001 I Street
Sacramento, California 95814

Via electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php,

Re: WSPA Comments on CARB's Proposed Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear

Dear Ms. Bylin:

The Western States Petroleum Association (WSPA) appreciates this opportunity to comment on the California Air Resources Board's (CARB) Proposed Amendment to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear, for which the 45-day language was posted July 21, 2020. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in California and four other western states. WSPA appreciates CARB's effort to work with industry stakeholders to incorporate recommendations that have been submitted during the regulatory process over the last couple of years, and we submit the following comments and suggestions for CARB's consideration to clarify and improve the 45-day language.

Catastrophic Failure and Emergency Events--§ 95351(a); § 95357(h); and § 95357.1
WSPA had previously advocated for and CARB has proposed an exemption that could be granted in the case of a "Catastrophic Failure" that includes shutdown of the regulated facility's operations due to the sudden and unexpected failure of a GIE device, for which the facility has no other GIE in its possession to resolve the catastrophic failure and which needs to be replaced faster than on the phase-out timescale (§ 95357(h)). This exemption would allow an entity, after going through the proper approval process, to replace existing SF6 equipment with new SF6 equipment even during the phase-out period. Therefore, **WSPA approves the term "Catastrophic Failure" and the proposed associated exemption** and suggests keeping intact the definition proposed in § 95351(a):

> **"Catastrophic Failure"** means the sudden and unexpected failure of a GIE device that impacts human safety and/or substantially impairs, damages, or shuts down part or all of a system (e.g., the electrical grid, facility operations, a power producer's availability for dispatch to the electrical grid).

WSPA believes that not only should its members be allowed to replace GIE equipment on an expedited basis when it experiences a catastrophic failure for which cause may be onsite or at a power producer's facility but that the **emissions from such a catastrophic failure, which is also an emergency event, should be excluded from the calculating of annual emissions**, as provided for in § 95357.1 (Emergency Event Exemption). The current definition of "Emergency Events," however, does not explicitly include power outages that are not the fault of the GIE owner. Section 95357(1)-(2) allows the exemption from reporting such emissions when the release of SF6 "could not have been prevented by exercise of prudence, diligence, and care" and "was beyond the control of the GIE owner." There are emergency events, including catastrophic equipment failures, that may be due to the power grid beyond the control of the GIE owner. In fact, there may be some overlap in which an event could be categorized as both a "catastrophic failure" and an "emergency event." WSPA suggests, therefore, that §95357.1 also cover "Catastrophic Events" or include language in the two definitions that would acknowledge partial overlap.

Replacement Parts—§ 95351(a) and § 95352(c)

WSPA appreciates the intent of the regulation to allow the continued use of SF6 GIE for the rest of their useful lives, in that the phase-out dates are to apply only to replacement units. In addition, § 95352(c) states that "Replacement parts are not subject to the phase-out." In accordance with that intent, WSPA believes the definition of "replacement parts" should not be limited to just those parts that are defined as "ancillary components that support or enable, but cannot perform, the primary activities or operation of an integrated GIE device." Needing to replace a part that may be primary in function should not deem the GIE as being at the end of life and/or needing to have the whole GIE device replaced with another technology. **Just as the spirit of the regulation allows replacement of the SF6 gas in a GIE device even during the phase-out period, so long as the GIE device has not reached the end of life, the rule should also allow replacement of any part of the GIE.** The delineation for when the whole SF6 GIE device must be replaced is when it has reached the end of its useful life; the regulation requires that the replacement then be a non-SF6 technology. This is also in keeping with CARB's acknowledgement in this proposed rule's Notice of Public Hearing, page 5, that "[b]ecause GIE lasts approximately 40 years, though, emissions reductions from non-SF6 GIE acquired between 2025 and 2036 will continue through 2075…." For these reasons, WSPA proposes that the definition in § 95351(a) should be revised to read:

> "Replacement Parts" are ~~ancillary~~ components that support or enable~~, but cannot perform,~~ the ~~primary~~ activities or operation of an integrated GIE device."

Early Action Credits—§ 95353(d)

CARB proposes an early action program that would give credit to facilities that purchase non-SF6 between January 1, 2021, and the applicable phase-out date, with roughly two-thirds credit being given based on capacity, with the credit being included in the baseline up to 10% max of 2021 capacity. WSPA agrees with the overall approach but would like to suggest three changes. With CARB's goal being the reduction of emissions from SF6, it would seem that there should be a much **higher limit of early action credit rather than just 10% of the 2021 capacity**. Facilities would be more incented to replace SF6 if greater credit were given toward the baseline and if greater credit were given per piece of GIE replaced; that is, **giving credit up to 100% of the voltage capacity**. Another suggestion is to decrease the lowest capacity that is eligible for credit from the proposed 72.5 kV. Even some large industrial facilities may only have a few smaller pieces of equipment with less than 72.5 kV capacity and therefore would not

qualify under this proposed early action credit program. **The credit should be available for all types of GIE listed for phase-out in Table 1**. With these three changes, facilities would be more likely to look aggressively to replace SF6 GIE with non-SF6 equipment as soon as technically feasible, assuming adequate market availability and proven reliability.

Inventory and Insulating Gas Procedures—§ 95354

The procedures laid out in the rulemaking for quantifying the amount of insulating gas transferred into or out of GIE rely on weighing gas containers in various storage configurations, which can be unwieldly and very time-consuming, given that cylinder contents also have to be brought to the temperature and pressure required by procedure. **WSPA proposes that CARB allow the use of mass flow meters**, which have been commonly used for decades and yield accurate mass calculations for inventory purposes. CARB should develop another subsection that would allow and describe the appropriate use of mass flow meters for facilities to conduct their annual inventories.

Recordkeeping Requirements—§ 95355

The proposed language in § 95355(a) requires that a single annual emissions report be "submitted by each GIE owner regardless of whether the GIE owner's GIE are located in a single physical location or multiple contiguous locations within California." For greenhouse gas reporting purposes in CARB's Mandatory Reporting Rule, a single facility location, such as a refinery, must report its emissions separately from another refinery location in the state that may have the same owner. It would make sense to have the reporting under this proposed rule to have facilities report separately to match the reporting that they conduct under the MRR. Perhaps this proposed requirement is meant to address power companies with many substations under single ownership, but for other industries, this may not be appropriate. **WSPS suggests that facilities report separately or combined under this SF6 rule in the same manner as they do under the CARB MRR.**

Sulfur Hexafluoride Phase-Out—§ 95352(a)(4)

Date Extension

WSPA appreciates that CARB has taken previous comments from industries into consideration and provided tiered phase-out dates with extended windows, based on voltage capacity, amperage, and accessibility. WSPA agrees with CARB's reasoning on pages 6 and 8 of the Notice of Public Hearing on the proposed rule to extend the phase-out dates so that non-SF6 GIE is available from at least two manufacturers, to ensure that GIE owners have three years for testing new technology before employing it at their sites, and to accommodate capital planning cycles (indirectly benefiting refinery turnaround schedules). WSPA previously commented that larger equipment should be phased out first, so that the power industry with its experience, expertise, and technical capacity would be the lead adopters before smaller sources of GHG emissions from GIE were phased out. **WSPA still believes and suggests that smaller sources should be phased out later than larger sources.**

Replacement Exemption

The phase-out language precludes any person from acquiring SF6 GIE after specified dates except under certain conditions, one being the replacement of "a defective SF6 GIE device at no cost to the GIE owner

under the terms of the manufacturer's warranty." **WSPA appreciates the exemption, but given that warranty replacements may incur a cost**, such as restocking, shipping, or deductible fees, WSPA recommends that the exemption language be revised to read, "The SF6 GIE manufacturer replaces a defective SF6 GIE device ~~at no cost to the GIE owner~~ under the terms of the manufacturer's warranty."

SF6 Phase-Out Exemption—§ 95357

WSPA commends CARB for giving much consideration to exemption language for the phase-out of SF6 equipment. Sections 95357(b)(1)-(4) and 95357(d)(8)(D) allow for exemptions due to available non-SF6 equipment not able to be obtained from more than one manufacturer; not meeting size requirements; being incompatible with existing equipment, wiring, or connectors; not being suitable based on safety or reliability requirements; or not able to be used in accordance with company policy or procedure. While the exemption process is rightfully rigorous, requiring full justification and demonstrating attempts to find non-SF6 solutions, WSPA supports all these exemptions. (WSPA also supports the "catastrophic failure" exemption as described in § 95357(h).) Specifically, in relation to the (d)(8)(D) exemption for safety or reliability issues due to failure to comply with **"company-specific policy or procedure,"** WSPA feels this language adequately addresses its concerns expressed in February 2020 that a GIE owner should be able to "submit for a technical infeasibility exemption to allow for the acquisition of SF6 GIE after the phase-out date…if the available non-SF6 GIE has not been demonstrated to meet recognized industrial standards, procedures, practices, or equivalent internal practices (including risk-based criteria)." **WSPA supports CARB's proposed exemption language.**

Annual Emissions Limits—§ 95353

Stakeholders with low SF6 capacity had requested a change to mass emission limits instead of percentage-based limits due to very low calculated mass numbers needed for compliance under the percentage-based approach. **For setting the baseline capacity, WSPA supports CARB's proposed method** in § 95353(b)-(c) of using the sum of the average CO2e capacity for all active GIE devices at the facility, yielding an average system capacity that is then used to calculate a facility-wide emissions limit.

We also agree with allowing facilities to purchase SF6 GIE through 2024 that would be added to the baseline calculation for the phase-out beginning in 2025. After that, the baseline would not decrease when SF6 GIE is replaced with non-SF6 GIE and would not include any SF6 GIE purchased with exemptions. CARB provides an incentive to invest in non-SF6 equipment by allowing a baseline to remain static in relation to a reduction in the potential to emit due to purchase of non-SF6 equipment. As CARB describes in its Notice of Public Hearing, page 8:

> An emissions limit with a fixed baseline would incentivize a GIE owner to replace SF6 GIE with non-SF6 GIE after the baseline is set because the implementation of non-SF6 GIE would decrease the actual amount of SF6 in their system, which would reduce the risk of SF6 emissions, without any corresponding decrease in average system capacity used to evaluate regulatory compliance.

WSPA supports this section's proposed methodology for incenting the transition to non-SF6 GIE.

WSPA appreciates this opportunity to provide comments on proposed amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear. We look forward to the hearing and CARB's potential further refinements. Please feel free to reach me at troberts@wspa.org.

Sincerely,

Tiffany Roberts
Vice President, Regulatory Affairs
Western States Petroleum Association