

July 2, 2021

Richard Corey
Executive Officer, California Air Resources Board
1001 I Street
Sacramento, California 95814

RE: Comments on Second 15-Day Modifications to the Proposed Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear

Dear Mr. Corey:

The “Joint Utilities Group”¹²³⁴ (JUG) appreciates the opportunity to offer comments on the California Air Resources Board’s (CARB) ‘Second Notice of Public Availability of Modified Text for the Proposed Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear’ (Second 15-Day Changes), released on June 17, 2021. The JUG represents most of the electric transmission and distribution system owners and operators in California.

The rulemaking to modify the Sulfur Hexafluoride (SF₆) regulation has been a lengthy and complex process, and the JUG recognizes staff’s efforts to work constructively with stakeholders to develop amendments that phase out the use of SF₆ in a manner that is technically and practically feasible. These Second 15-Day Changes incorporate modest but critical changes that properly recognize the gas insulated equipment (GIE) owners’ expertise in decisions concerning the safe and reliable operations of their equipment by converting the phaseout exemption process into an administrative completeness review. The JUG would like to express our appreciation for CARB making this important change and believes it is the direct result of our ongoing collaboration with staff.

However, the JUG remains deeply concerned that several aspects of the proposed regulation are unclear or technically impractical, which could jeopardize the regulation’s successful implementation. The JUG recognizes that at this stage in the rulemaking, CARB may not have the ability to make further revisions to the proposed regulation text. Nevertheless, the JUG believes it is essential that these additional issues be addressed in order to have a workable regulation. If CARB determines it is infeasible to modify the proposed regulation text, the JUG urges CARB to provide express clarification in the Final Statement of Reasons (FSOR) and/or commit to an enforcement stay until the regulation can be reopened, as may be

¹ Pacific Gas & Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Sacramento Municipal Utility District, Los Angeles Department of Water and Power, Turlock Irrigation District, Liberty Utilities, Bear Valley Electric Service, the Northern California Power Agency, Southern California Public Power Authority and the California Municipal Utilities Association

² The Northern California Power Agency (NCPA) is a nonprofit California joint powers agency established in 1968 to construct and operate renewable and low-emitting generating facilities and assist in meeting the wholesale energy needs of its 16 members: the Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Shasta Lake, and Ukiah, Plumas-Sierra Rural Electric Cooperative, Port of Oakland, San Francisco Bay Area Rapid Transit (BART), and Truckee Donner Public Utility District—collectively serving nearly 700,000 electric consumers in Central and Northern California.

³ The Southern California Public Power Authority (SCPPA) is a joint powers agency whose members include the cities of Anaheim, Azusa, Banning, Burbank, Cerritos, Colton, Glendale, Los Angeles, Pasadena, Riverside, and Vernon, and the Imperial Irrigation District. SCPPA Members collectively serve nearly five million people throughout Southern California. Each Member owns and operates a publicly-owned electric utility governed by a board of local officials who are directly accountable to their constituents.

⁴ The California Municipal Utilities Association is a statewide organization of local public agencies in California that provide electricity and water service to California consumers. CMUA membership includes publicly-owned electric utilities that operate electric distribution and transmission systems. In total, CMUA members provide approximately 25 percent of the electric load in California.

needed. The JUG also recommends convening a working group to work through implementation issues for technical aspects of the regulation and identify additional regulatory guidance that may be needed.

Topics addressed in this comment letter are as follows:

- I. Phase-Out Exemption Process and Failure Notification
- II. Nameplate Capacity Adjustment Procedure
- III. Enforcement Provisions
- IV. Other Clarifications
 - A. Calculating Annual Emissions
 - B. Covered Insulating Gas at Activation
 - C. Corrections to Annual Reports

The convention used to present the JUG comments is bold blue text (e.g. **addition**) to note recommended additions to the regulatory language and red text with strikeout (e.g. ~~deletion~~) to note recommended deletions. Italic font (e.g. *addition* or ~~*deletion*~~) notes modifications made by CARB in the Second 15-Day Changes. Ellipses (...) indicate additional text in the regulation that the JUG is not making recommendations on.

I. Phase-out Exemption Process and Failure Notification

The JUG believes that Section 95357 should be revised to clarify the requirements to obtain an exemption and to meet CARB’s stated intent to create a process that acknowledges utility operators’ role in maintaining grid reliability and managing their systems.

A. Aligning the Intent of Revisions to Section 95357 with the Regulatory Language

The JUG appreciates CARB’s recognition of the importance of ensuring that utility personnel have the appropriate discretion to exercise their expertise regarding the safe and reliable operation of GIE. The provisions of section 95357 (SF₆ Phase-Out Exemption and Failure Notification) were designed to provide GIE owners with the ability to continue to use GIE equipment that utilizes SF₆ in instances where it is not feasible to replace or repair SF₆ equipment that is either failing or nearing the end of its useful life, with a non-SF₆ alternative. In the Notice,⁵ Staff clarifies that “Section 95357(f) is modified so that the Executive Officer will approve a phase-out exemption request once it is deemed complete.”

However, based on JUG’s reading of the released regulation language, the corresponding revisions to section 95357(f) do not provide the necessary clarity to accurately reflect this stated intent and ensure that the purpose set forth in the Summary of Proposed Modifications can be carried out unambiguously. For that reason, the JUG suggests that section 95357(f), as proposed in the Attachment A to the Notice, be revised to reflect the stated intent as shown below, or that the FSOR specify these express clarifications:

(f) Within 45 days of submittal, the Executive Officer shall notify the submitter that their application is **either** complete, **in which case the submitter’s phase-out exemption**

⁵ Second Notice of Public Availability of Modified Text, Proposed Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear, dated June 17, 2021, p. 3.

request shall be deemed approved, ~~and has been approved,~~ or that additional information and/or clarification is necessary to complete the application. Upon receipt of additional information and/or clarification pursuant to section 95357(d)(8)(E) from the submitter, the Executive Officer will perform the actions specified in this subsection within 45 days.

...

The corresponding change to section 95357(d)(8)(E) should also be added as follows:

(E): Within the timeframe specified in section 95357(f), if the Executive Officer determines that the information provided as part of the exemption request is insufficient to serve as the basis for an exemption under this section, s/he may request additional information and/or clarification related to sections 95357(c) and 95357(d) prior to the application being deemed complete *and approved* pursuant to section 95357(f); **if no additional information is needed to complete the request, the submitter's phase-out exemption request shall be deemed approved.**

...

B. Removing Ambiguous and Unclear Provisions in Section 95357 (d)(5)(C)

The JUG remains concerned that the provisions in section 95357 (d)(5)(C) which would require a GIE owner to include in the phase-out exemption request a “description of the universe of entities eligible to bid,” are ambiguous and unclear. Section 95357 (d)(5)(C) includes examples and identifies a public solicitation or qualified vendor list; we believe these examples provide the level of detail and certainty necessary for the GIE owner to comply. However, requiring the submission of the “universe of entities” lacks the necessary level of clarity needed to ensure that the GIE owner can comply. As such, the “universe of entities” reference is vague and ambiguous and would not comply with the clarity standard for regulations set forth in 1 CCR 16. To remedy this issue, the JUG requests that CARB correct this section, as shown below. If these changes are not possible within CARB’s rulemaking timeframe, then the FSOR must clearly state that a copy of the GIE owner’s public solicitation criteria or qualified vendor list is sufficient to describe the “universe” of entities eligible to bid.:

(C): A **copy of the GIE owner’s public solicitation criteria or qualified vendor list from which the GIE owner is authorized to purchase GIE**~~_description of the universe of entities eligible to bid based on the bidding process used by the GIE owner (e.g., public solicitation, qualified vendor list);~~

...

C. Removing Information Not Germane to Reason for Phase-Out Exemption Request from Section 95357(d)(8)

The JUG believes that some of the informational requirements in section 95357(d)(8), as set forth below, are redundant, unnecessary, confusing, and burdensome. For example, 95357(d)(8)(D) states “... the justification must also provide an explanation as to how the GIE owner will address the situation to

enable the transition to non-SF₆ alternatives in a timely manner” which is the same information required in 95357(l)(1). As such this requirement is redundant and should be removed. To streamline the informational requirements for Phase-Out Exemptions, remove requests for information that are not germane to the specific request or redundant, and ensure that all relevant information is provided, the JUG recommends the following revisions. At a minimum, the FSOR should clarify that only relevant information to the circumstances must be submitted, and the exemption justification should be based on the bids received by the GIE owner in relation to the specific projects, locations and/or structure types as noted in 95357(l). These clarifications do not alter the Executive Officer’s ability to request additional information if needed.

(d) The SF₆ phase-out exemption request must contain the following:

(8)~~All~~ The applicable justifications for the exemption, as follows **and any relevant supporting documentation. Examples of supporting documentation may include, but are not limited to:**

(A) For exemptions submitted under section 95357(b)(1), ~~this includes~~ the specific GIE characteristics (per Tables 1 and 2) that cannot be met by at least two suppliers.

(B) For exemptions submitted under section 95357(b)(2), ~~this includes~~ **justification may include** the complete dimensions of each space within which requested SF₆ GIE would reside; the complete dimensions of each available non-SF₆ GIE that meet the GIE characteristics (per Tables 1 and 2) identified by the equipment manufacturers; the complete dimensions of the SF₆ GIE specified in section 95357(d)(4); and a picture showing the space where the SF₆ GIE would be installed. If the dimensions of the non-SF₆ GIE are smaller than the dimensions of the space available, but the device cannot be placed into the *space* for another reason (e.g., the space lacks the necessary clearance, another obstacle prevents transport of the device to the space), the justification **may** also include a description of the constraint that clearly demonstrates why the device cannot be placed in the available space.

(C) For exemptions submitted under section 95357(b)(3), ~~this includes~~ a list of available non-SF₆ GIE that meet the GIE characteristics (per Tables 1 and 2) identified by the equipment manufacturers and a justification that clearly explains why each of the available non-SF₆ GIE identified are incompatible and how the SF₆ GIE described in section 95357(d)(4) are compatible.

(D) For exemptions submitted under section 95357(b)(4), ~~this includes~~ **justification may include** a list of available non-SF₆ GIE that meet the GIE characteristics (per Tables 1 and 2) identified by the equipment manufacturers and a justification that clearly explains why each of the available non-SF₆ GIE identified fail to meet the technical specifications and/or the GIE owner’s documented safety or reliability requirements, such as failure rates or other indicators of reliability, and how the SF₆ GIE described in section 95357(d)(4) do meet the requirements. ~~If failure rates or other indicators of reliability are used, specific details must be provided. If the GIE owner’s justification cites a company-specific policy or procedure that available non-SF₆ GIE do not currently meet and that is within the control of the GIE owner (for example, the company requires three years of testing for new equipment), the justification must also provide an explanation as to how the GIE owner will address the situation to enable the transition to non-SF₆ alternatives in a timely manner.~~

The JUG appreciates that CARB staff has recognized the importance of the exemption process and has committed to address the JUG concerns. In the interest of ensuring that the regulatory text in fact reflects staff's intent to provide a workable exemption process, the JUG urges CARB to refine the rule language as set forth above.

D. Section 95357(i)(2) Failure Notification needs flexibility to accommodate situations where partial but not all, information can be submitted to CARB within 45 days.

The JUG supports the modification to section 95357(i)(2)(F) for the GIE owner to provide an explanation for the cause of the failure and/or the circumstances that led the GIE owner to believe a GIE failure is imminent and needs to be replaced for reliability reasons. For example, an imminent failure may be based on classification of a GIE device as "failed" due to compromised reliability as demonstrated by the device's failure of one or more critical operational or diagnostic tests, or manifestation of symptoms indicating the device is ready to fail.

The JUG appreciates the recognition that "within 45 days of the failure" is not enough time to purchase, manufacture and ship the replacement GIE device. The revised deadline of "within 45 days of the acquisition of the GIE device used to resolve the failure" is a more feasible timeframe to report information about the replacement GIE to CARB in most cases. However, in cases where installation is more complex, it may take longer than 45 days to install, test and activate the replacement GIE, as explained below. Some flexibility in the failure notification process is needed to accommodate situations where more time is needed.

The following information will be available to report to CARB once the GIE owner receives the replacement GIE: Date acquired, GIE characteristics, Equipment type, and Manufacturer's serial number. However, it may take longer than 45 days to know the "Date activated", especially for high-voltage GIE that are more complex to install and activate. Many non-hermetically sealed GIE are not "plug and play". Construction work is necessary to remove the old GIE and install the new GIE, which requires scheduling an outage for the affected portion of the substation. If the new GIE does not have the same footprint and configuration as the old GIE, repairs and/or modifications to the foundation and wiring may be needed. After the GIE is installed, it needs to be filled with insulating gas and tested prior to activation. If testing reveals a problem, the GIE cannot be placed into service until the problem is resolved.

The rule needs to accommodate outliers that don't fit within the 45-day timeframe. The JUG believes that 60 days is a reasonable across-the-board deadline to report "Date activated" and urges CARB to revise the deadline to 60 days after the GIE is acquired. Alternatively, CARB could expressly clarify in the FSOR that GIE owners may report available information to CARB within 45 days and provide the remaining information during the notification completeness review process in 95357(k). The JUG recommends revising Section 95357(i)(2) as follows:

...

(2) Within ~~45~~ 60 days of the acquisition of the GIE device used to resolve the failure, electronically submit the following information to the Executive Officer for each GIE device acquired.

II. Nameplate Capacity Adjustments Procedure

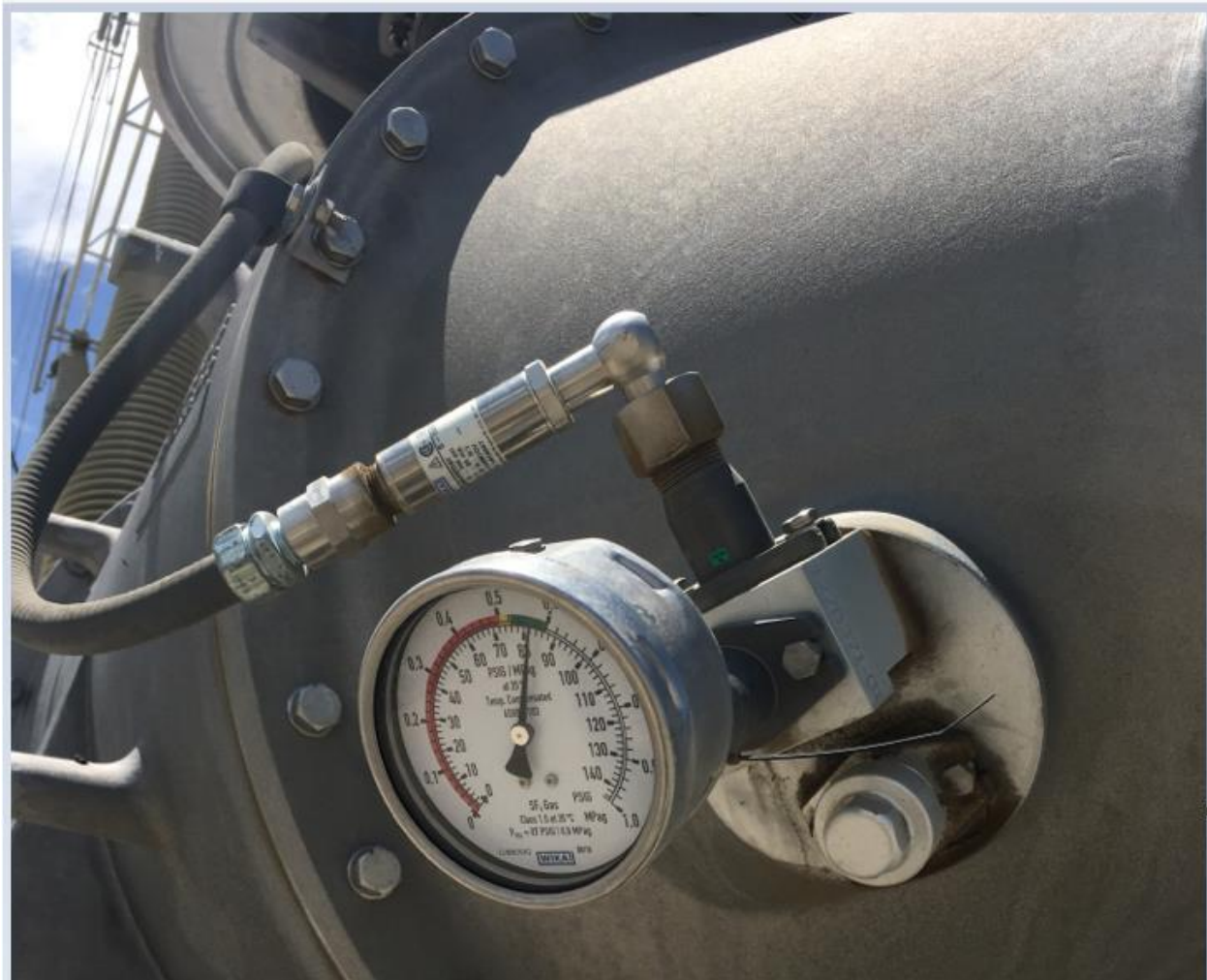
Section 95357.2 should be revised so that the integrated temperature-compensated pressure gauge provided by the GIE manufacturer for monitoring gas pressure inside the GIE may be used to measure the initial GIE gas pressure at the beginning of this procedure.

The JUG appreciates and supports the changes made to the gas cart requirements in section 95354(f), and the option to use either the temperature/pressure curve or other GIE manufacturer-provided materials to verify the GIE is at the proper operating pressure at the beginning of the Nameplate Capacity Adjustment procedure.

In addition, the JUG supports the overall Nameplate Capacity Adjustment procedure with one exception, which is the approach to measuring the GIE gas pressure at the beginning of the procedure.

This procedure applies to non-hermetically sealed GIE. Many non-hermetically sealed GIE have an integrated temperature-compensated pressure gauge that is connected directly to the GIE gas vessel (see Figure 1 below).

Figure 1: Integrated temperature-compensated pressure gauge



The integrated gauge is typically used to fill the GIE with gas (fill to pressure not weight), and to monitor the gas pressure over the service life of the GIE. If this integrated gauge was used for the initial gas fill, for consistency it makes sense to use the same gauge to measure the GIE gas vessel pressure prior to removal of the gas using the Nameplate Capacity Adjustment procedure. With this approach, the user would simply take a reading from the GIE integrated temperature-compensated pressure gauge and compare that value with the temperature/pressure curve or other manufacturer materials to determine whether the GIE is at the proper operating pressure.

In the absence of this type of gauge, the user would need to attach an external pressure gauge at the GIE fill port to measure the absolute pressure of gas inside the GIE, then convert that pressure to temperature-compensated pressure. There are several sources of error with this approach. First, if the pressure gauge is connected to the GIE fill port via tubing, the gauge will measure pressure of the gas inside the tubing which may be slightly different than the pressure inside the GIE gas vessel. Second, you cannot accurately measure temperature of the gas inside the vessel from outside the vessel. For GIE in an outdoor environment with the sun warming the gas vessel, the temperature on the outside of the gas vessel will be warmer than the temperature on the inside of the gas vessel. The sun will not warm the gas inside the vessel uniformly -- if a temperature gradient exists within the gas vessel, attaching a temperature gauge at the fill port would be a spot measurement that may not represent the average temperature within the vessel. Therefore, measuring temperature outside of the gas vessel will not accurately represent the temperature of the gas inside the gas vessel. This would be a source of error when converting the pressure reading to temperature-compensated pressure, thereby offsetting the accuracy gained by using highly accurate gauges to separately measure the pressure and temperature.

The JUG asked several GIE manufacturers whether the integrated temperature-compensated pressure gauge provided for use with their GIE can meet the 0.5% accuracy standard specified by CARB and were advised that the accuracy of these gauges ranges from +/- 1% to 3%. These “utility grade” gauges have a rugged design suitable for general use in many different environments. A 0.5% accurate pressure gauge would be a “process or laboratory grade” gauge -- these are delicate high precision measurement instruments that cannot survive the shock coming from operating the breaker, nor can they be left outdoors without loss of function. They also require controlled atmospheric conditions to return accurate results.

Given these practical considerations, the JUG sees little benefit to be gained from separately measuring pressure and temperature and converting to temperature-compensated pressure, when the GIE has an integrated temperature-compensated pressure gauge with an accuracy of 1% - 3%. The JUG urges CARB to revise section 95357.2 (c) (1) and (2) to expressly allow the option to use either the GIE manufacturer provided integrated temperature-compensated pressure gauge that is connected directly to the GIE gas vessel, or CARB’s approach using separate pressure and temperature gauges. Neither approach is perfect, and both approaches will provide temperature-compensated pressure for comparison with the GIE pressure/temperature curve. At a minimum, CARB should clarify in the FSOR that neither the requirements of section 95257.2, nor the accuracy requirements in 95354 (c), preclude GIE owners from using the GIE manufacturer provided integrated temperature-compensated pressure gauge for the nameplate adjustment procedure.

The JUG’s proposed changes to the rule language are provided below:

§ 95357.2. Nameplate Capacity Adjustments.

...

(c) If a GIE owner elects to adjust the nameplate capacity of any GIE, the owner must:

- (1) Record the initial system **temperature-compensated** pressure **of the gas inside the GIE and**
~~vessel temperature~~ prior to removing any insulating gas **using one of the following methods:**
 - a. **If the GIE device has an integrated temperature-compensated pressure gauge from which a numerical reading can be taken, that was provided by the GIE manufacturer for monitoring the gas pressure inside the GIE, record the temperature-compensated pressure value from this gauge; or**
 - b. **Using a ~~precision~~ pressure gauge meeting the minimum accuracy requirements of section 95354(f)(2) and a ~~precision~~ temperature gauge meeting the minimum accuracy requirements of section 95354(f)(3), separately measure the initial system pressure of the GIE and the temperature.** (2) Convert the initial system pressure to a temperature compensated initial system pressure by using the manufacturer-specified temperature/pressure curve *or other manufacturer-provided materials that can be used to convert the initial system pressure to a temperature compensated initial system pressure.*

...

III. Enforcement Provisions

Section 95359 still do not provide consistent, fair, and reasonable enforcement provisions.

In prior comments on the 45-day language⁶ and the 21-day language⁷, the JUG highlighted the need for limited revisions to the enforcement provisions in section 95359 (c) and (d), pertaining to an exceedance of the annual emissions rate and an unauthorized acquisition of SF₆ GIE, respectively, to ensure outcomes are consistent, fair, and reasonable.

The JUG is disappointed that CARB did not make any modifications to section 95359 (d) in the Second 15-Day Changes to promote reasonable and constructive enforcement outcomes. As detailed in the JUG's 21-day comments, the inclusion of the "per MTCO₂e" language could result in multiple violations and exorbitant fines based on the SF₆ GWP referenced in the ISOR, even if it were a single small GIE containing SF₆ that was acquired without a proper phaseout exemption or failure notification. Depending on the assumed per day penalty, which could now be up to \$5,235⁸ per violation per day, the penalty could be as high as **\$1.6 million per day**, an absurd result.

The JUG understands that CARB wants the penalty structure to be consistent with the Mandatory Reporting Regulation and Cap-and-Trade, but the sheer increase in magnitude when converting from SF₆ to CO₂e could lead to penalties that are incomparable with other regulations. With CARB's Second 15-

⁶ JUG 45-day comment letter: <https://www.arb.ca.gov/lists/com-attach/14-sf62020-USJSMgYxWFQGagVw.pdf>

⁷ JUG 21-day comment letter: <https://www.arb.ca.gov/lists/com-attach/31-sf62020-B3RUNAYxAw9VOQB1.pdf>

⁸ [https://ww2.arb.ca.gov/sites/default/files/2021-](https://ww2.arb.ca.gov/sites/default/files/2021-06/2020_Annual_Enforcement_Report.pdf?utm_medium=email&utm_source=govdelivery)

[06/2020_Annual_Enforcement_Report.pdf?utm_medium=email&utm_source=govdelivery](https://ww2.arb.ca.gov/sites/default/files/2021-06/2020_Annual_Enforcement_Report.pdf?utm_medium=email&utm_source=govdelivery)

Day Changes that convert the phase-out exemption process to an administrative review similar to the failure notification process, the JUG hopes that the risk of inadvertently acquiring unauthorized SF₆ GIE will be lower, but maintaining an enforcement structure in which a single error could result in astronomical penalties is counterproductive.

The JUG appreciates CARB's removal of the "per-day" multiplier in section 95359 (c), as it is reasonable to consider the magnitude of an annual emissions rate violation rather than applying a daily penalty. The JUG believes this change represents an improvement but remains concerned that continuing to include the "per MTCO₂e" multiplier could lead to disproportionately higher penalties, given the magnitude of the SF₆ GWP referenced in the ISOR. Pound for pound, an SF₆ exceedance could result in a tenfold increase in violations, and thus penalties, relative to CO₂, as shown below:

$$1 \text{ lb of SF}_6 \times 22,800 \text{ GWP} \times \text{mt}/2,205 \text{ lbs} = 10.3 \text{ violations}$$

Assuming the maximum penalty of \$5,235 per violation, the cost *per pound* exceedance is approximately \$54,000.

If CARB retains the enforcement provisions as currently proposed, the FSOR must explain why the JUG's common-sense modifications were rejected and how CARB will ensure reasonable and comparable implementation of the SF₆ enforcement program relative to other regulations.

IV. Other Clarifications

The JUG requests that the FSOR include a detailed explanation from CARB on why the JUG's recommended changes to the following sections were not included in Second 15-Day Changes.

A. Section 95354.1(a) Calculating Annual Emissions:

The JUG comments on the 21-day changes identified shortcomings with the description of the terms of the emission calculation equation, but that comment was not addressed in the Second 15-Day Changes. The JUG believes that changes to the terms of the equation are necessary to correctly calculate the annual emissions. As currently written, the gas acquisition and disbursement terms do not account for movement of gas cylinders within the same entity from a facility inside California to a facility outside of California, and vice versa. The scope of the annual emissions report to CARB is limited to the boundaries of California, so cylinders relocated to another state need to be accounted for as "Removed from Inventory." While the disbursements term does account for gas in cylinders returned to suppliers or sent to other entities, it does not account for gas in cylinders moved to an out-of-state facility belonging to the same entity. The JUG asks CARB to explain how the emission calculation equation accounts for the movement of cylinders belonging to the same entity to another state. The JUG also asks CARB to explain how gas contained within inactive GIE that is sold to another entity should be accounted for. Lastly, for GIE on which the Nameplate Capacity Adjustment procedure was performed, the JUG asks CARB to confirm in the FSOR how the adjusted nameplate capacity value is used in the annual emission calculation.

B. Section 95354(a)(10)(A)(6) Covered Insulating Gas At Activation (CIGAA)

In the JUG comments on the 21-day changes, we recommended expanding CIGAA to include all GIE filled with insulating gas prior to activation within the data year, regardless of whether the GIE were acquired prior to or after 12/31/21. Use of the actual gas fill value for GIE activated during the data year in the annual emission calculation would be more accurate than using the estimated gas capacity provided by the manufacturer. JUG members have a fair number of GIE acquired prior to 12/31/21 that have not been activated; there is no reason to use a less accurate nameplate capacity value for these GIE simply because they were acquired prior to 12/31/2021. In the interest of accuracy, CIGAA should apply to all GIE filled with insulating gas prior to activation within the data year, regardless of the date the GIE was acquired.

C. Section 95355 Reporting Requirements should include the ability for corrections to annual reports

The JUG reiterates its previous comments on the 21-day changes on the need for explicit recognition of the ability to provide corrections to annual reports, which was not included in the Second 15-Day Changes. Based upon the statement by CARB (via a teleconference with JUG) on May 19, 2021, it is the JUG's understanding that although sections 95355(c) and 95355(c)(1) have been removed from the Proposed Changes, reporting entities may still submit revised SF₆ reports to CARB upon determination of correctable errors on previously submitted reports. The JUG had requested conformity of this regulation to that of CARB's MRR which explicitly recognizes the ability to amend a report's correctable errors within a specific timeframe without penalty of enforcement, which we still believe to be appropriate. The JUG urges CARB to clarify in the FSOR that this process will be allowed.

Conclusion

The JUG reiterates its support of the objective of this rulemaking to transition California away from the use of high GWP gases. We appreciate the modifications that were included in the Second 15-Day Changes, and we recognize staff's efforts to work with stakeholders throughout this lengthy process. To ensure the resiliency and accuracy of this regulation, the JUG believes that the additional corrections and clarifications we have identified above are necessary to align with the intent of the regulation and allow for a practical and feasible implementation process.