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10-2-2

**BEFORE THE AIR RESOURCES BOARD
OF THE STATE OF CALIFORNIA**

February 24, 2010

Mary D. Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA

Re: Comments of the Joint Utilities Regarding *Proposed SF₆ Regulation*

The Northern California Power Agency,¹ Pacific Gas & Electric Company, Sacramento Municipal Utility District, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Public Power Authority² (“Joint Utilities”) appreciate the opportunity to provide these comments to the California Air Resources Board (“CARB”) on the *Proposed Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear* (“SF₆ Regulation” or “Proposed Regulation”), issued January 7, 2010.

I. INTRODUCTION

The Joint Utilities have worked with CARB Staff over the last nine months to develop a regulation that meets the following objectives: (1) reduces emissions of SF₆ from gas insulated switchgear used in the electrical power generation, transmission and distribution system, (2) avoids being overly prescriptive, (3) avoids creating unnecessary work and record keeping burdens for compliance entities, (4) minimizes additional cost burdens for consumers, and (5) maintains reliable operation of the State’s electricity infrastructure.

¹ The members of the Northern California Power Agency include the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, and Ukiah plus Bay Area Rapid Transit District, Port of Oakland, the Truckee Donner Public Utility District, and the Turlock Irrigation District. Associate members are the Plumas-Sierra Rural Electric Cooperative and the Placer County Water Agency.

² The members of the Southern California Public Power Authority are Anaheim, Azusa, Banning, Burbank, Cerritos, Colton, Glendale, Los Angeles Department of Water and Power, Imperial Irrigation District, Pasadena, Riverside, and Vernon.

The State's utilities provide an essential public service critical to California's financial success, and are the primary entities subject to this regulation. The Joint Utilities support the State's objectives and propose the revisions discussed herein in order to minimize adverse impacts on California's electricity customers and ensure that the final regulation meets all of the stated objectives. These comments propose changes to the Proposed Regulation in the order in which they appear in Subarticle 3.1 – *Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear*, and not necessarily in order of importance.

II. COMMENTS ON THE PROPOSED REGULATION

A. The Definition of Active GIS Equipment Should be Expanded.

§ 95351. Definitions.³

(a) (1) “Active GIS Equipment” means in-service non-hermetically sealed SF₆ gas insulated switchgear that is actively-connected (i.e., ~~interconnected~~ through busbars or cables ~~which are actively conducting electricity~~) to the GIS owner's electrical power system, or that is kept fully-charged and on-site ready for service, and which employs a mechanism to monitor potential emissions. “Active GIS equipment” does not include equipment in storage.

Joint Utility Comment: The definition of Active GIS Equipment should be expanded to include all equipment that is fully charged, even if such equipment is not conducting electricity. There are many instances where Active GIS Equipment does not meet the proposed definition above, but due to the manner in which it is intended for use, should be included in the calculation for Active GIS Equipment used for compliance purposes. Active GIS Equipment should also include spare equipment that is fully-charged and stored on-site, ready for use. The Joint Utilities understand that CARB also wishes to ensure that such equipment is subject to inspections and monitoring, which can be successfully accomplished through a variety of different means. The Joint Utilities propose that the Regulation not be drafted in a prescriptive manner that specifies the exact type of monitoring to be employed, as the efficiency and cost-effectiveness of different monitoring systems will be contingent upon the specific utility/regulated entity. Accordingly, the Joint Utilities recommend that the definition of Active GIS Equipment be revised to allow for in-service equipment that is connected to the system, and

³ There are currently two definitions numbered §95351(a)(2).

equipment that is fully charged and kept on-site ready for service, and that employs a monitoring mechanism the type of which is left to the discretion of the regulated entity.

B. The Definition of an Emergency Event Should Not be Limited to Natural Disasters

§ 95351. Definitions.

(a) (2) "**Emergency Event**" means a situation arising from a sudden and unforeseen natural disaster event, including, but not limited to such as an earthquake, flood, or fire.

Joint Utility Comment: The current Emergency Event definition is too narrowly defined, and does not adequately address the kinds of emergency events that are likely to occur that could result in an unpreventable release of SF₆. Emergency Events are not limited to natural disasters, and unforeseen events beyond the control of utility operators can take many forms. Although not anticipated, there are instances where acts of terrorism, vandalism, or freak accidents may result in unavoidable emissions. Rather than limit the definition of the emergency event to natural disasters, the Joint Utilities recommend that the limitation be placed on "events" beyond the control of the utility operator or unpreventable in the face of prudent utility practices, consistent with the language already set forth in § 95353. Such an expanded definition is consistent with the definitions for emergency events used in other CARB regulations.⁴

C. The Emissions Rate Definition Should Be Modified For Consistency With Section 95356(e).

§ 95351. Definitions.

(a) (3) "**Emission rate**" means, subject to the provisions of section 95356(e), a GIS owner's total annual SF₆ emissions from all active GIS equipment divided by the total average system SF₆ nameplate capacity of all active GIS equipment.

Joint Utility Comment: The emissions rate definition refers to total SF₆ nameplate capacity, but this term is not defined, and section 95356(e) uses the term 'average system nameplate capacity' in the emission rate calculation. The Joint Utilities recommend that the Draft Regulation be revised make this definition and the calculation description consistent.

⁴ See, for example, § 93118.3. *Airborne Toxic Control Measure for Auxiliary Diesel Engines Operated on Ocean-Going Vessels At-Berth in a California Port*, which addresses instances outside the control of the operator, and §§ 95380 to 95398, *regarding the Management of High Global Warming Potential Refrigerants for Stationary Sources*, which specifically addresses leaks associated with natural disasters, and ATCM for Stationary Compression Ignition Engines (Stationary Diesel Engine ATCM).

D. The Emergency Event Exemption Should be Effective With the Onset of the Regulation.

§ 95353. Emergency Event Exemption.

(a) After January 1, ~~2012~~ 2020, a GIS owner may request emissions from an emergency event to be exempted from the calculation of the maximum allowable emission rate if it is demonstrated to the Executive Officer's satisfaction that the release of SF₆: . . .

- (1) Could not have been prevented by the exercise of prudence, diligence, and care; and
- (2) Was either:
 - i) beyond the control of the GIS owner or operator, or
 - ii) was necessary to avoid immediate electrical system outages.

Joint Utility Comment: The Joint Utilities are pleased to see the inclusion of an Emergency Event provision in the Proposed Regulation, however, recommend that this exemption be allowed as of the effective date of the regulation. Events beyond the control of the utility operator can be catastrophic and result in unavoidable SF₆ emissions. The Proposed Regulation accurately recognizes that these kinds of events should not be viewed in the same light as negligent acts that result in unwarranted emissions. However, Emergency Events can occur at any time. Despite the fact that the total allowed emissions rates are higher in the beginning years of the program, if an Emergency Event occurs early on in the regulation period, the need for the Emergency Event Exemption is just as critical as a smaller event in the later years. In addition, a single event, even if small, would be proportionately larger in comparison to nameplate capacity for a smaller utility, and thereby would indicate an earlier need for the exemption. Accordingly, the Joint Utilities recommend that the Regulation be revised to allow for application of Emergency Events from the effective date of the Regulation.

E. The Emergency Event Exemption Request Should be Made Within 60 Days of the Occurrence of the Event.

§ 95353. Emergency Event Exemption.

(b) A request for an exemption pursuant to this section must be submitted in writing to the Executive Officer within ~~60~~ 30 calendar days after the occurrence of the emergency event, and must contain the following information . . .

Joint Utility Comment: More than 30 days should be allowed for submitting an Emergency Event Exemption request. Due to the nature of some events, a leak may not be immediately discovered, even through due diligence, especially in instances where the underlying event caused widespread damage or disturbance to a utility's operations. Furthermore, during such time utility personnel will be focused on repairs and restoration of utility services, rather than report writing. Accordingly, it is prudent to allow for additional time to prepare and compile the necessary paperwork to submit to the regulatory agency following the occurrence of an emergency event. The Joint Utilities recommend that the Draft Regulation be revised to allow additional time for the regulated entities to submit the request for exemption so that the primary focus in the days immediately following an emergency event can be on facilities operations.

E. SF₆ Containers Should Be Weighed Annually.

§ 95354. SF₆ Inventory Measurement Procedures.

(a) GIS owners must do all of the following: . . . (1) Establish and adhere to written procedures to track and weigh all gas containers as they are leaving and entering storage;

Joint Utility Comment: Gas containers should be weighed once a year in order to calculate the SF₆ emissions inventory. The Proposed Regulation establishes an annual compliance obligation on covered entities. Nothing is gained by increasing the frequency with which the canisters must be weighed. To the contrary, this additional requirement increases the burden on staff and the potential for error. Accordingly, the Joint Utilities recommend that the Regulation be drafted consistently with an annual compliance obligation and require that the canisters of gas be weighed annually.

With the addition of these weigh-in/weigh-out requirements, the Proposed Regulation contemplates reporting and recordkeeping requirements that are far more extensive than current industry practices. The cost to sustain such requirements will not be minimal. As more fully discussed below, the assumptions set forth in the Initial Statement of Reasons ("ISOR") that "per-utility recordkeeping and reporting costs for the first year would range between approximately \$500 and \$1,900" and that "[a]nnual recordkeeping and reporting costs for

succeeding years would range between \$240 and \$960 per entity,” (ISOR, p. E-S 4) are not realistic based on utility assessments of the implementation costs of the Proposed Regulation.

The ISOR notes that “[t]he proposed regulation will expand on the recordkeeping and reporting requirements already required by the mandatory reporting regulations. The additional requirements are minimal and will have a limited impact on DWR and local agencies.” (p. 20) The Joint Utilities strongly disagree with this assessment. The additional reporting and recordkeeping obligations contemplated in the Draft Regulation are far greater than those already employed by utilities. Indeed, some utilities estimate that the additional record-keeping processes required in the Draft Regulation will require in excess of 2 full-time-equivalent personnel, and could cost hundreds of thousands of dollars in the initial years. The ISOR goes on to state that “SF₆ emission reduction activities will incur a cost savings during the initial years of the ten year regulatory period and will continue to be minimal until the final three years of this period.” (p. 20) As estimated by some utilities, the costs associated with the additional personnel needed to cover the record keeping and accounting will exceed the cost savings associated with reduced SF₆ usage and will not result in any further emissions reductions.

Accordingly, the Joint Utilities Recommend that § 95354 be revised to reflect an annual weighing requirement for all SF₆ canisters, and that the canisters.

F. The SF₆ Containers Should be Weighed on Scales that are Certified by the Manufacturer.

§ 95354. SF₆ Inventory Measurement Procedures.

(a) GIS owners must do all of the following: . . . (2) Weigh all gas containers on a scale that is certified by the manufacturer of the scale, to be accurate to within one percent of the true weight;

Joint Utility Comment: Currently, the Draft Regulation does not specify the entity that is required to certify the scales used to weigh the gas containers. The Joint Utilities recommend that the scales be certified by the manufacturer.

G. The Inventory Provisions Should be Revised to Account for Annual Weighing of the Gas Containers.

§ 95355. Recordkeeping.⁵

(b) Establish and maintain a current and complete inventory of gas containers, which includes the following information for each container: . . . (4) An annual chronological accounting, by weight in pounds, of SF₆ transferred into or out of the container; . .

Joint Utility Comment: The Joint Utilities recommend that the recordkeeping provisions of § 95355 should be revised to reflect the annual weighing requirements, consistent with the discussion above.

H. The Regulation Should Allow Off-Site and Out-of-State Record Storage.

§ 95355. Recordkeeping.

Add (d)(3) “GIS owners may retain records outside of California if such records are electronically stored or jointly owned, and are thus retained in the normal course of business.”

Joint Utility Comment: Not all records are stored at the facilities where the SF₆ is located. Indeed, some entities employ off-site and out-of-state electric data storage systems that ensure the safekeeping of essential data. In order to accommodate these common storage practices, the Proposed Regulation should be revised to accommodate instances where records are stored electronically, offsite, and/or out-of-State.

I. Compliance Entities Must Have Sufficient Time to Compile Requested Documents for Inspection.

§ 95355. Recordkeeping.

(e) Have all records available for ARB inspection at time of inspection, provided that the ARB gives 15 business days’ advance notice of inspection; and . . . ;”

Joint Utility Comment: While the Joint Utilities are more than willing to share documentation and records for CARB staff inspections, adequate time must be provided for utilities to gather the necessary documents. Document may not all be in the same place, and

⁵ The Joint Utilities support the proposed revisions to § 95355 set forth in the Comments of the Southern California Public Power Authority, dated February 16, 2010, pages 11-13.

copies may need to be made. Accordingly, the Joint Utilities recommend that that § 95355(e) be revised to allow fifteen days notice to the compliance entity for any document inspection.

J. Annual Reporting Under the New Regulation Should Begin in 2012.

§ 95356. Annual Reporting Requirements.⁶

(a) Beginning in calendar year ~~2011~~ 2012 for emissions occurring during the previous calendar year, and each calendar year thereafter, each GIS owner must submit the following annual report to the Executive Officer no later than the applicable deadline specified in title 17, California Code of Regulations, Section 95100, *et seq.*: . . .

Joint Utility Comment: Reporting under the new Regulation should not be mandated prior to adoption of the regulation. The reporting requirements contemplated in the Draft Regulation are new and go beyond what is currently required under CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, and what is done under Environmental Protection Agency's (EPA) SF₆ Emission Reduction Partnership for Electric Power Systems. Accordingly, it would not be possible to provide 2010 data that is consistent with the requirements of the Proposed Regulation, as would be mandated by § 95356(a). As such, the Joint Utilities recommend that the Annual Reporting Requirements mandated in § 95356 begin in calendar year 2012 for emissions occurring in 2011.

K. The Enforcement Provisions in the Proposed Regulation are Not Consistent with an Annual Compliance Obligation and Should be Revised to Remove Daily Penalty Provisions.

§ 95358. Enforcement.

(a) ~~Penalties.~~ Penalties may be assessed for any violation of this Subarticle, including failure to submit necessary reports, pursuant to Health and Safety Code section 38580, and guidelines established in a public process. ~~Each day during any portion of which a violation occurs is a separate offense.~~

~~(b) Each day or portion thereof that any report required by this Subarticle remains unsubmitted, is submitted late, or contains incomplete or inaccurate information, shall constitute a single, separate violation of this Subarticle.~~

~~(b)(e) Any exceedance of the maximum allowable SF₆ emission rate for a calendar year shall constitute a single, separate violation of this Subarticle for each day of the calendar year.~~

⁶ The Joint Utilities support the proposed revisions to § 95356 set forth in the Comments of the Southern California Public Power Authority, dated February 16, 2010, pages 13-17.

(c)(d) *Injunctions.* Any violation of this subarticle may be enjoined pursuant to Health and Safety Code section 41513.

Joint Utility Comment: Penalties for annual compliance obligations should not be assessed on a daily basis. As a practical matter, it is imperative that enforcement of the program be comprehensive and transparent, and that penalties be fairly assessed and administered. A daily penalty provision for an annual compliance obligation does not meet these criteria.

To date, the majority of CARB's Nonvehicular Air Pollution regulations, permits, and limits have been based on daily maximum levels and include ongoing compliance periods. The Proposed SF₆ Regulation, on the other hand, is an annual compliance obligation which measures an entity's compliance for the entire year. Since the compliance obligation is based on annual measurement, the daily emission levels throughout the year are neither known, nor relevant.

A daily penalty metric is not consistent with an annual compliance obligation, notwithstanding CARB's discretionary authority to impose such a penalty. While Health and Safety Code⁷ section 38580(3) provides that:

the state board may develop a method to convert a violation of any rule, regulation, order, emission limitation, or other emissions reduction measure adopted by the state board pursuant to this division **into the number of days in violation, where appropriate, for the purposes of the penalty provisions of.** . . . (emphasis added),

clearly it is not "appropriate" to do so when the regulation at issue is based on a maximum annual emission rate. Enforcement of the Proposed Regulation must be reconciled with the express provisions of Health and Safety Code section 38580(3), which requires that penalties be **appropriate**. In this case, a daily penalty provision for an annual compliance obligation is not appropriate and is inconsistent with state law.

Despite the significant discretion that Staff may have in applying penalties that are commensurate with the violation by reviewing factors such as the extent of harm, nature and persistence of the violation, a utility's record of maintenance, duration of violations, and how far over the limit the utility is, these discretionary factors do not support the application of a daily penalty provision. Rather, these factors can, and should, be applied when reviewing the extent of a penalty to apply, but such penalty should have its basis in the single violation at issue – the

⁷ Unless otherwise noted, all code sections references shall be to the Health & Safety Code (H&S).

exceedance of the **maximum annual SF₆ emissions rate** set forth in § 95352. Arguably, the only day for which a violation can be contemplated under the provisions of § 42400 is the final day of the compliance year. An appropriate method for calculating penalties may be to consider the number of pounds of SF₆ by which an entity exceeded the annual limit.

The Joint Utilities also believe that the enforcement provisions should be based on clearly defined guidelines that are developed as part of a public process. It is simply insufficient to say that "penalties may be assessed pursuant to Health and Safety Code § 38580." Specific language stating what the penalties are and how they are determined must be included in the regulation or accompanying guidelines. Parties should be afforded a view of the due process and penalty structure they may face for failure to comply with the new regulations. Insight into the penalty structure will help send a clear signal to participants about what is expected. The development of such language should be addressed in a public forum.

Additionally, in the event that monetary penalties are assessed, the penalty calculation metric should be included in the regulation or in publicly developed guidelines. The calculation and determination of the penalty should be crafted to deter non-compliance by removing any economic benefits of non-compliance, and take into account the compliance entity's culpability in the exceedance, including intentional or negligent acts. Furthermore, CARB must remain cognizant of the broad range of entities to which the regulation will apply, which includes not only the State's large utilities, but small publicly owned utilities, as well as colleges and universities that maintain electric equipment subject to the regulation. Accordingly, the penalty provisions should be crafted as to recognize instances where maximum SF₆ levels are exceeded, but not through malfeasance or negligence on the part of the compliance entity, and the penalty metric must not be so onerous as to preclude the ability of a compliance entity to pay the fee and continue meeting ongoing and future compliance obligations.

The Joint Utilities recommend that the provisions of §95358 be revised to strike the daily penalty language and allow for the development of comprehensive guidelines that ensure that the enforcement provisions are consistent with the State's goals of ensuring compliance with the regulation and punishing noncompliance through malfeasance.

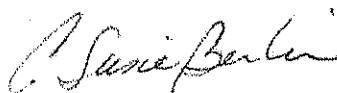
III. CONCLUSION

The Joint Utilities appreciate the opportunity to provide these comments to the Board and are hopeful that the necessary revisions addressed herein will be included in the Regulation. Utilities provide an essential public service critical to the success of our State, and as the primary entities subject to this regulation, the Joint Utilities believe that making these changes will ensure a structure under which California can continue to effect cost-effective GHG reductions, while not jeopardizing the viability of California's electric utilities, nor the provision of safe and reliable electricity to the State's consumers.

Respectfully submitted,

THE JOINT UTILITIES

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