

# **PROPOSED AMENDMENTS TO THE REGULATION FOR REDUCING SULFUR HEXAFLUORIDE EMISSIONS FROM GAS INSULATED SWITCHGEAR**

Resolution 20-28

September 24, 2020

Agenda Item No.: 20-9-2

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the California Air Resources Board (CARB or Board) to adopt standards, rules and regulations and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, the Legislature has enacted the Global Warming Solutions Act of 2006 (Assembly Bill 32 or AB 32; Pavley, Stats. 2006, ch. 488); Health & Safety Code section 38500 et seq.), which declares that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California, and creates a comprehensive multi-year program to reduce California's greenhouse gas (GHG) emissions to 1990 levels by 2020;

WHEREAS, section 38566 of the Health and Safety Code, added pursuant to Senate Bill 32 (SB 32; Pavley, Stats. 2016, ch. 250), further directs that CARB shall ensure that state GHG emissions are reduced to at least 40 percent below the statewide GHG limit no later than December 31, 2030;

WHEREAS, section 38501(c) of the Health and Safety Code declares that California has long been a national and international leader on energy conservation and environmental stewardship efforts, and the targets established pursuant to AB 32 and SB 32 will continue this tradition of environmental leadership by placing California at the forefront of national and international efforts to reduce GHG emissions;

WHEREAS, section 38501(d) of the Health and Safety Code confirms that national and international actions are necessary to fully address the issue of global warming, but

action taken by California to reduce GHG emissions will have far reaching effects by encouraging other states, the federal government, and other countries to act;

WHEREAS, section 38510 of the Health and Safety Code designates CARB as the State agency charged with monitoring and regulating sources of GHG emissions in order to reduce these emissions;

WHEREAS, section 38562(a) of the Health and Safety Code requires CARB to adopt GHG emissions limits and emissions reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in GHG emissions in furtherance of achieving the statewide GHG emissions limit;

WHEREAS, section 38562(b) of the Health and Safety Code requires CARB, in adopting the regulations described in section 38562(a), to the extent feasible and in furtherance of achieving the statewide GHG emissions limit, to do the following:

Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income communities;

Ensure that activities undertaken pursuant to the regulations complement, and do not interfere with, efforts to achieve and maintain federal and State ambient air quality standards and to reduce toxic air contaminant emissions;

Consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health;

Minimize the administrative burden of implementing and complying with these regulations;

WHEREAS, sulfur hexafluoride (SF<sub>6</sub>) is a potent GHG with a climate impact 22,800 times that of carbon dioxide;

WHEREAS, SF<sub>6</sub> is used extensively in electrical power system as a dielectric medium (insulator) and interrupter (arc quencher);

WHEREAS, the majority of California's SF<sub>6</sub> emissions result from leakage and handling losses from gas insulated switchgear;

WHEREAS, the Board approved Resolution 10-1 at the February 25, 2010, Board Hearing, adopting the Regulation Order for the Proposed Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear;

WHEREAS, staff has proposed amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear, as set forth in Appendix A to the Initial Statement of Reasons, released to the public on July 21, 2020;

WHEREAS, the proposed regulatory language was made available to the public at least 45 days prior to the public hearing to consider the proposed regulation;

WHEREAS, staff prepared a document entitled "Staff Report: Initial Statement of Reasons—Public Hearing to Consider the Proposed Amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear" (ISOR), released to the public on July 21, 2020;

WHEREAS, staff conducted a working group meeting, three workshops, and a webinar, provided informal regulatory text, and also participated in numerous other meetings with stakeholders to provide additional opportunities to participate in the regulatory development process;

WHEREAS, manufacturers have developed alternatives to SF<sub>6</sub> equipment that perform comparably to SF<sub>6</sub> equipment, but with either no or lower GHG emissions;

WHEREAS, manufacturers have plans to develop non-SF<sub>6</sub> equipment for all voltage levels;

WHEREAS, some alternatives to SF<sub>6</sub> equipment employ other GHGs and coverage of these alternative gases in the Regulation ensures continued tracking of GHGs from the operation of equipment in the State;

WHEREAS, in some specific cases, equipment owners may need to install SF<sub>6</sub> equipment after the corresponding phase-out dates;

WHEREAS, CARB staff has learned that it would be difficult for equipment owners with relatively small SF<sub>6</sub> capacities to meet a one-percent emissions rate on a consistent basis;

WHEREAS, CARB staff has identified regulatory provisions that can improve the accuracy of data reported to CARB and improve CARB staff's ability to perform quality control on those data;

WHEREAS, CARB's regulatory program that involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans has been certified by the Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA; California Code of Regulations, title 14, section 15251(d)), and CARB conducts its CEQA review according to this certified program (California Code of Regulations, title 17, sections 60000-60007);

WHEREAS, staff determined that for the proposed amendments, CARB can rely on the environmental analysis prepared under its certified regulatory program included in the Staff Report released in 2010, and no additional environmental review is required because the record evidence shows that the amendments will not result in new significant adverse environmental impacts, as described in Chapter VI of the Staff Report;

WHEREAS, a public hearing and other administrative proceedings have been held according to the provisions of Chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, the Board finds that:

The Board adopted the Regulation Order establishing the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear via Resolution 10-1;

Staff has proposed amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear; the amended Regulation is set forth in Appendix A to the Initial Statement of Reasons, released to the public on July 21, 2020, which includes the following elements:

Expand the scope of the Regulation to cover emissions of all insulating gases with a global warming potential greater than one, and clarify terminology related to which equipment is covered by the Regulation;

Establish a timeline for phasing out acquisition of SF<sub>6</sub> equipment in California and create an incentive to encourage owners of covered equipment to acquire non-SF<sub>6</sub> equipment prior to the phase-out;

Establish a process through which owners of covered equipment could be granted a phase-out exemption to allow them to acquire SF<sub>6</sub> equipment after the phase-out, but only when certain limited conditions are met;

Establish alternative emissions limits for small-capacity owners of covered equipment to improve their ability to comply with the Regulation, assign each covered entity an emissions limit in metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>) (as opposed to the current SF<sub>6</sub>-specific emission rate limit), and establish methods to minimize the growth of the emissions limit over time; and

Revise reporting requirements to improve reporting accuracy, clarify requirements, close gaps in accounting for SF<sub>6</sub> and other covered insulated gases, and improve CARB staff's ability to verify reported data.

The proposed amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear were developed in an open public process, in consultation with affected parties, through numerous public workshops, individual meetings, and other outreach efforts, and these efforts are expected to continue;

The proposed amendments would result in GHG emissions reductions of 3.1 million MTCO<sub>2</sub>e;

Other jurisdictions have expressed interest in adopting regulations covering SF<sub>6</sub> equipment and have consulted with CARB staff about the current regulation and proposed amendments;

No reasonable alternatives to the proposed amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear considered to date, or that have otherwise been identified and brought to the attention of CARB staff, would be more effective at carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected entities than the proposed regulation;

The proposed amendments to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear are consistent with CARB's environmental justice policies and do not disproportionately impact people of any race, culture, income, or national origin; and

The proposed amendments are covered by the prior environmental analysis prepared to comply with CEQA, and no additional environmental review, or revisions to the prior environmental analysis, are required because substantial evidence in the records shows there are no changes that will result in new significant adverse environmental impacts.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves for adoption amendments to sections 95350, 95351, 95352, 95353, 95354, 95355, 95356, 95357, 95358 and 95359; and adopt new sections 95354.1, 95357.1 and 95359, Title 17 California Code of Regulations, as set forth in Appendix A of the Initial Statement of Reasons released to the public on July 21, 2020.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to make additional conforming modifications to the regulation and make the modified regulatory language available for public comment, with any additional supporting documents and information. The Executive Officer shall consider written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days. The Executive Officer may present the regulation to the Board for further consideration if warranted, and if

not, the Executive Officer shall take final action to adopt the regulation after addressing all appropriate conforming modifications.

BE IT FURTHER RESOLVED that the Board directs staff to engage with stakeholders, especially to discuss technically sound and consistently applied methodologies to measure equipment capacity.

BE IT FURTHER RESOLVED that the Board directs staff to make conforming modifications that include converting the requirement to request permission to acquire SF<sub>6</sub> equipment after the phase-out to a notification in the event of a catastrophic failure.

BE IT FURTHER RESOLVED that the Board directs staff to consider the following in the development of additional conforming modifications:

That electrification is a key strategy to meeting our long-term climate and air quality goals.

That the modifications should support California's efforts to ensure a safe and reliable electricity system.

That replacement of SF<sub>6</sub> equipment with non-SF<sub>6</sub> alternatives is a priority for the Board, and that the regulated entities are key partners in removing SF<sub>6</sub> equipment from service.

That the modifications provide CARB the ability to ensure accurate accounting, notification, and auditing of equipment and emissions in the State.

BE IT FURTHER RESOLVED that if there is a possibility that any modifications to the regulation made available for one or more 15-day public comment periods may affect the conclusion of the environmental analysis, the Executive Officer shall prepare and circulate any additional environmental analysis to the extent required by CARB's regulations at title 17, CCR, section 60004.

I hereby certify that the above is a true and correct copy of Resolution 20-28 as adopted by the California Air Resources Board.

  
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Katie Estabrook, Board Clerk