State of California
AIR RESOURCES BOARD

Resolution 09-68

December 9, 2009

Agenda Item No.: 09-10-7

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

WHEREAS, AB 32 added section 38501 to the Health and Safety Code, which expresses the Legislature's intent that Air Resources Board (ARB or the Board) coordinate with State agencies and consult with the environmental justice community, industry sectors, business groups, academic institutions, environmental organizations, and other stakeholders in implementing AB 32; and design emissions reduction measures to meet the statewide emissions limits for greenhouse gases in a manner that minimizes costs and maximizes benefits for California's economy, and maximizes additional environmental and economic co-benefits for California, and complements the State's efforts to improve air quality;

WHEREAS, section 38505 of the Health and Safety Code defines "greenhouse gases" as including carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride;

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

WHEREAS, in section 38550 of the Health and Safety Code the Legislature has directed ARB, after holding one or more public workshops, to determine what the statewide greenhouse gas emissions level was in 1990, and approve in a public hearing a statewide greenhouse gas emissions limit equivalent to that level to be achieved by 2020;

WHEREAS, section 38551 of the Health and Safety Code specifies that the statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed, and that the limit shall continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020;

WHEREAS, section 38560 of the Health and Safety Code directs the Board to adopt rules and regulations in an open public process to achieve the maximum technologically

feasible and cost-effective GHG emission reductions from sources or categories of sources, subject to the criteria and schedules specified in Part 4 of Division 25.5 of the Health and Safety Code;

WHEREAS, section 38561 of the Health and Safety Code requires the Board to approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions from sources or categories of sources of greenhouse gases by 2020 under this division on or before January 1, 2009;

WHEREAS, section 38562 of the Health and Safety Code requires the Board to adopt greenhouse gas emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions in furtherance of achieving the statewide greenhouse gas emissions limit, to become operative beginning on January 1, 2012;

WHEREAS, section 38563 of the Health and Safety Code does not restrict the Board from adopting greenhouse gas emission limits or emission reduction measures prior to January 1, 2011, imposing those limits or measures prior to January 1, 2012, or providing early reduction credit where appropriate;

WHEREAS, section 38580 of the Health and Safety Code directs the Board to monitor compliance with and enforce any rule, regulation or order adopted by the Board pursuant to Division 25.5 of the Health and Safety Code;

WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the 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, in September 2007, ARB staff released for public review a draft report entitled "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration" (Staff Report), which sets forth staff's proposed expanded list of early actions;

WHEREAS, the early action Staff Report recommended a measure including expanding and enforcing the national ban on venting high-global warming potential (GWP) GHG; requiring high-GWP GHG sales, use, and energy use reporting; and inspection and maintenance and leak repair for equipment, cylinders, products, or systems;

WHEREAS, the Board approved the Staff Report, then entitled "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California," at its October 25, 2007 hearing;

WHEREAS, as part of a public hearing on December 11, 2008, the Board approved the Climate Change Scoping Plan which includes the High GWP Stationary Equipment Refrigerant Management Program Early Action Measure in the High-GWP sector;

WHEREAS, staff has developed a regulatory proposal for the management of high-GWP refrigerants for stationary sources (the Refrigerant Management Program);

WHEREAS, staff estimates that the proposed regulation would reduce GHG emissions of 8 million metric tons of CO_2 equivalents annually by 2020 relative to business-as-usual projections;

WHEREAS, staff has worked closely with the California Air Pollution Control Officers Association, the South Coast Air Quality Management District, the United States Environmental Protection Agency (U.S. EPA), as well as industry and environmental organization stakeholders;

WHEREAS, in 2008 and 2009 ARB staff conducted seven public workshops, participated in five technical workgroup meetings, and held several individual stakeholder meetings to include the public and affected stakeholders in the regulatory development process;

WHEREAS, high-GWP refrigerants include chlorofluorocarbon (CFC), hydrochlorofluorocarbon (HCFC), perfluorocarbons (PFC) and hydrofluorocarbon (HFC) refrigerants, which are greenhouse gases typically thousands of times more potent than CO_2;

WHEREAS, current U.S. EPA regulations related to stationary refrigeration and air-conditioning systems are specific only to ozone depleting substances (ODS) refrigerants, including CFC and HCFC refrigerants, there is a significant and growing gap in emission control efforts for non-ODS, high-GWP refrigerants including HFC and perfluorocarbon refrigerants;

WHEREAS, approximately 26,000 California facilities operate stationary refrigeration systems that use more than 50 pounds of a high-GWP refrigerant, which are projected (as of 2020 and assuming a business-as-usual scenario) to emit over 15 million metric tons of CO_2 equivalent in GHG emissions per year as a result of current refrigerant management practices;

WHEREAS, staff is therefore proposing the adoption of the proposed regulation to regulate emissions associated with stationary, non-residential refrigeration systems using more than 50 pounds of a high-GWP refrigerant, the servicing of any appliance using a high-GWP refrigerant, and the distribution and reclamation of high-GWP refrigerants;

WHEREAS, the proposed regulation would require the use of readily available refrigerant best management practices such as automatic leak detection and monitoring, frequent leak inspections, and timely refrigerant leak repair to reduce emissions of high-GWP refrigerants;

WHEREAS, the proposed regulation would reduce GHG emissions from: 1) the operation of stationary refrigeration systems that use more than 50 pounds of a high-GWP refrigerant; 2) the installation, repair, maintenance, servicing, replacement,

recycling, and disposal of appliances that use high-GWP refrigerants; and 3) the sales, use, and disposal of high-GWP refrigerants and refrigerant cylinders;

WHEREAS, the proposed regulation would establish a registration process to identify facilities that have potential GHG emissions from stationary refrigeration systems;

WHEREAS, the proposed regulation establishes implementation fees for facilities with stationary refrigeration systems that have a high potential for refrigerant leaks that are necessary to fund the implementation and enforcement of the proposed regulation and set to cost-effectively achieve specified GHG emission reductions;

WHEREAS, the proposed regulation establishes effective refrigerant leak detection and monitoring practices to ensure early detection of high-GWP refrigerant emissions;

WHEREAS, the proposed regulation requires high-GWP refrigerant leak repair in a timely manner to reduce high-GWP refrigerant emissions;

WHEREAS, the proposed regulation requires retrofit or retirement plans to insure stationary refrigeration systems that continually leak high-GWP refrigerants are retrofitted or retired to reduce high-GWP refrigerant emissions;

WHEREAS, the proposed regulation establishes required service practices applicable to all high-GWP appliances that are necessary to ensure the reduction of high-GWP refrigerant emissions and that are consistent with required service practices mandated in Title 40, Part 82 of the Code of Federal Regulations for ozone depleting refrigerants;

WHEREAS, the proposed regulation specifies prohibitions on the sales and use of high-GWP refrigerants and these prohibitions are necessary to reduce high-GWP refrigerant emissions and are consistent with prohibitions required under Title 40, Part 82 of the Code of Federal Regulations for ODS refrigerants;

WHEREAS, the proposed regulation establishes reporting requirements that are phased in to allow for an efficient transition by giving additional time to affected businesses to become familiar with the program and ensure the operation of a streamlined online reporting tool that will be made available to regulated businesses for submitting their annual reports;

WHEREAS, the proposed regulation establishes reporting requirements that are necessary to assist in enforcement activities and to quantify and verify emission reductions on a per-facility and statewide basis;

WHEREAS, the proposed regulation establishes recordkeeping requirements that would enable staff to determine the effectiveness of the regulation and to monitor and ensure compliance with the regulation's requirements;

WHEREAS, the proposed regulation would result in the collection of public records and potentially confidential records, the proposed regulation sets out how any confidential

records submitted to ARB will be managed to ensure compliance with title 17 of the California Code of Regulations;

WHEREAS, the proposed regulation provides the basis and authority under which the proposed regulation will be enforceable;

WHEREAS, the proposed regulation establishes how the regulation will be implemented in local air districts to minimize the administrative burden of compliance;

WHEREAS, the proposed regulation establishes the severability of any part of the proposed rule to ensure that if any part of the proposed regulation is held invalid high-GWP refrigerant emissions will be reduced by those parts of the proposed regulation that are held valid and in effect;

WHEREAS, ARB staff prepared a Staff Report entitled "Initial Statement of Reasons for Proposed Regulation for the Management of High Global Warming Potential Refrigerants for Stationary Sources" (ISOR) which presents the rationale for the proposed regulation;

WHEREAS, the ISOR and proposed regulatory language were made available to the public for at least 45 days prior to the public hearing to consider the proposed regulation;

WHEREAS, the proposed regulation would adopt new Article 4, Subarticle 6, title 17 California Code of Regulations, sections 95380 to 95398, as set forth in Attachment A hereto;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project that may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, the Board has considered the effects of the proposed regulation on the economy of the State and the potential for adverse economic impacts on California business enterprises and individuals;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of Chapter 3.5 (commencing with § 11340), Part 1, Division 3, title 2 of the Government Code; and

WHEREAS, in consideration of the information in the public record, including the ISOR, written comments, and testimony provided at the hearing, the Board finds that:

Staff worked closely with the California Air Pollution Control Officers Association, South Coast Air Quality Management District, and the U.S. EPA;

High-GWP refrigerants including CFC, HCFC, PFC and HFC refrigerants are GHGs typically thousands of times more potent than CO_2;

There is a significant and growing gap created in emission control efforts for non-ODS, high-GWP refrigerants;

Approximately 26,000 California facilities operate stationary refrigeration systems that use more than 50 pounds of a high-GWP refrigerant, which are projected to emit in 2020, based on a business-as-usual scenario, over 15 million metric tons of CO_2 equivalent in GHG emissions each year as a result of current refrigerant management practices;

The proposed regulation complements federal regulations and may provide a template for regulation of all high-GWP refrigerants by other states and the U.S. EPA;

The proposed regulation establishes the use of readily available refrigerant best management practices such as automatic leak detection and monitoring, frequent leak inspections, and timely refrigerant leak repair that are currently used in industry and that will help reduce GHG emissions generated due to current refrigerant management practices for stationary refrigeration systems;

The proposed regulation establishes required service practices that are consistent with existing federal rules that will help reduce GHG emissions generated as a result of the installation, repair, maintenance, servicing, replacement, recycling, and disposal of appliances that use high-GWP refrigerants;

The proposed regulation establishes refrigerant sales, use, and disposal prohibitions that are consistent with existing federal rules that will help reduce GHG emissions generated from the sale, use, and disposal of high-GWP refrigerants and refrigerant cylinders;

The proposed regulation establishes recordkeeping requirements to enable staff to determine the effectiveness of the regulation and to monitor and ensure compliance with the regulation's requirements;

The reporting requirements of the proposed regulation that apply to businesses are necessary to assist in enforcement activities and to quantify and verify emission reductions on a per-facility and statewide basis and are necessary for the health, safety, and welfare of the people of the State;

The proposed regulation requirements are technically feasible and are achievable using existing technology; and

The proposed regulation could result in the creation of a small number of jobs within the State.

WHEREAS, the Board further finds that:

The proposed regulation meets the requirements specified in sections 38560 and 38562 of the Health and Safety Code;

The proposed regulation is estimated to reduce 8 million metric tons of CO_2 equivalents emissions annually in California, at an average cost savings of about $2 per metric ton of CO_2 equivalent reduced;

The economic impacts of the proposed regulation have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the ISOR;

The cost-effectiveness of the proposed regulation has been considered, and the regulation will achieve cost-effective GHG emission reductions;

The benefits to human health, public safety, public welfare, or the environment justify the costs of the proposed regulation;

The proposed regulation is consistent with ARB's environmental justice policies and will equally benefit residents of any race, culture, or income level;

No reasonable alternative considered, or that has otherwise been identified and brought to the attention of ARB, would be more effective in carrying out the purpose for which the regulation is proposed, or be as effective and less burdensome to affected private persons and businesses than the proposed regulation;

The adoption of the proposed regulation will not have a significant adverse environmental impact and is projected to positively impact air quality by reducing emissions of greenhouse gases associated with stationary, non-residential refrigeration systems; and

The proposed regulation would not affect the ability of California businesses to compete with businesses in other states.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the proposed adoption of Article 4, Subchapter 6, title 17, California Code of Regulations Sections 95380 through 95397, as set forth in Attachment A hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer, as part of the development of the mitigation fee on high-GWP gases regulation identified in ARB's AB 32 Scoping Plan, to harmonize any future high-GWP mitigation fee with the proposed regulation's implementation fee, including proposing amendments, if appropriate, to the proposed regulation.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to work with local air districts, regulated parties, and other stakeholders to develop an on-line

reporting system to ensure a consistent, statewide reporting system that can be, to the greatest degree possible, integrated with refrigerant management compliance software programs currently used by facilities for compliance with federal ODS refrigerant recordkeeping requirements.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to continue to work with California Air Pollution Control Officers Association, local air districts, trade associations and other agencies as needed, to conduct program outreach and provide compliance assistance to the regulated businesses to ensure effective rule implementation.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to work with technician training institutions, local community colleges and other agencies as needed, to conduct evaluation and development of improved technician training and certification program to provide consistent service and repairs to all refrigeration and air conditioning appliances statewide.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to adopt the proposed regulation as approved herein, after making the modified regulatory language, with such other conforming modifications and technical revisions as may be appropriate, after making the modified regulatory language and additional supporting documents and information available for public comment for a period of 15 days, as required by Government Code 11346.8, provided that the Executive Officer shall consider such written comments regarding the modification as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if he determines that this is warranted after reviewing the comments.

I hereby certify that the above is a true and correct copy of Resolution 09-68, as adopted by the Air Resources Board.

Lori Andreoni

Lori Andreoni, Clerk of the Board

FILED
SEP 13 2010
Resources Agency of California

FILED
SEP 14 2010
Resources Agency of California

Resolution 09-68

December 9, 2009

Identification of Attachments to the Resolution

Attachment A: Amendments to Title 17, California Code of Regulations, sections 95380, 95381, 95382, 95383, 95384, 95385, 95386, 95387, 95388, 95389, 95390, 95391, 95392, 95393, 95394, 95395, 95396, 95397, and 95398.

Attachment B: Staff's Suggested Modifications to the Original Proposal, presented at the December 9, 2009 Board hearing.

State of California
Environmental Protection Agency
AIR RESOURCES BOARD

Notice of Decision and Response to Significant Environmental Issues

Item:	High Global Warming Potential Refrigerants for Stationary Sources
Approved By:	Resolution 09-68
Adopted by:	Executive Order R-10-012
Agenda Item:	09-10-7
Public Hearing Date:	December 9, 2009
Issuing Authority:	Air Resources Board
Comment:	No comments were received identifying any significant environmental issues pertaining to this item. The Staff Report identified no adverse environmental effects.
Response:	N/A
Certified:	Amy J. Whiting, Regulations Coordinator Board Administration & Regulatory Coordination Unit
Date:	June 14, 2010

FILED
SEP 14 2010
Resources Agency of Californ