

## **TITLE 17. CALIFORNIA AIR RESOURCES BOARD**

### **NOTICE OF PUBLIC HEARING TO CONSIDER ADOPTION OF A REGULATION FOR THE MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS**

The Air Resources Board (the Board or ARB) will conduct a public meeting at the time and place noted below to consider the adoption of regulations to require mandatory reporting of greenhouse gas (GHG) emissions for California facilities. This regulation is being developed pursuant to requirements of the California Global Warming Solutions Act (AB 32, Statutes of 2006, Chapter 488).

DATE: December 6, 2007

TIME: 9:00 a.m.

PLACE: Air Resources Board  
Auditorium  
9530 Telstar Avenue  
El Monte, CA 91731

This meeting location may change. This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., December 6, 2007, and may continue at 9:00 a.m., December 7, 2007. This item may not be considered until December 7, 2007. Please consult the agenda for the meeting, which will be available at least 10 days before December 6, 2007, to determine the location and day on which this item will be considered.

For individuals with sensory disabilities, this document is available in Braille, large print, audiocassette, or computer disk. Please contact ARB's Disability Coordinator at (916) 323-4916 by voice or through the California Relay Services at 711, to place your request for disability services. If you are a person with limited English and would like to request interpreter services, please contact ARB's Bilingual Manager at (916) 323-7053.

## **INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT** **OVERVIEW**

**Sections Affected:** Proposed adoption of new sections 95100 to 95133, title 17, California Code of Regulations (CCR), sections 95100 to 95133.

### **Background**

In 2006 the legislature passed and the Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (AB 32; Stats. 2006, chapter 488). In AB 32 the Legislature declared that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The Legislature further declared that global warming will have detrimental effects on some of California's largest industries including agriculture and tourism, and will increase the strain on electricity supplies. While national and international actions are necessary to fully address the issue of global warming, the Legislature recognized that action taken by California to reduce emissions of greenhouse gases will have far-reaching effects by encouraging other states, the federal government, and other countries to act.

AB 32 creates a comprehensive, multi-year program to reduce GHG emissions in California, with the overall goal of restoring emissions to 1990 levels by the year 2020. AB 32 requires ARB to do many things, including:

- Adopting a list of discrete, early action measures by July 1, 2007 that can be implemented before January 1, 2010, and adopting such measures;
- Establishing a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopting a scoping plan by January 1, 2009 indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions;
- Adopting regulations by January 1, 2011 to achieve the maximum technologically feasible and cost-effective reductions in GHGs; and
- Adopting mandatory GHG emissions reporting regulations.

Mandatory GHG reporting regulations are an important component of AB32. This is because in order to reduce GHG emissions, it is first necessary to establish an effective program to estimate, report, and track these emissions. This in turn requires an accurate and verified source of facility-specific GHG emissions data. AB 32 thus requires that ARB: "... on or before January 1, 2008, ... adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program." (Health and Safety Code section 38530(a)).

Section 38530(a) further specifies, among other things, that these GHG reporting regulations must:

- require the monitoring and annual reporting of GHG emissions from GHG emission sources, beginning with the sources or categories of sources that contribute the most to statewide emissions;
- account for GHG emissions from all electricity consumed in the state, including transmission and distribution line losses from electricity generated within the state or imported from outside the state;
- incorporate the standards and protocols developed by the California Action Registry (where appropriate and to the maximum extent feasible), and make reasonable efforts to promote consistency among other existing and proposed international, federal, and state greenhouse gas emission reporting programs;
- ensure rigorous and consistent accounting of emissions;
- ensure that GHG emission sources maintain comprehensive records of all reported GHG emissions.

### **Description of the Proposed Regulatory Action**

The purpose of the proposed regulation is to meet the requirements of AB 32 to develop a comprehensive, effective, and reasonable mandatory GHG reporting program for California. The primary objectives include: begin reporting with the most significant GHG emissions sources, use rigorous and consistent emission accounting methods and provide reporting tools, include verification of emissions data, and, to the extent feasible, provide consistency with the California Climate Action Registry (CCAR), except as needed to ensure complete and verifiable mandatory reporting.

The proposed GHG reporting regulation would require annual emissions reporting from facilities that account for approximately 94% of the total carbon dioxide (CO<sub>2</sub>) produced in California from industrial and commercial stationary sources of emissions. Additional sources of GHG emissions will be accounted for through other mechanisms besides mandatory reporting, and are not included in this regulation.

Under the proposed regulation, the facilities required to annually report their GHG emissions would include electricity generating facilities, electricity retail providers, electricity marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 metric tonnes per year of CO<sub>2</sub> from stationary source combustion, including facilities such as food processing, glass container manufacture, oil and gas production, and mineral processing. The

staff proposal requires facilities to report their facility GHG emissions using the methods, equations, and emission factors specified in the regulation. To the extent feasible, these methods are consistent with existing CCAR protocols.

Staff is proposing that operators subject to reporting prepare and submit their GHG emissions estimates and other data as specified in the regulation. Greenhouse gas emissions reporting would be required from those with operational control of facilities or other entities subject to reporting. For this regulation, “operational control” for a facility means the authority to introduce and implement operating, environmental, health and safety policies. Nuclear, hydroelectric, wind, or solar electricity generating sources would not be required to report under the regulation. Hospitals with the North American Industry Classification System (NAICS) code starting with 62 would also not be required to report, nor would primary and secondary schools with a NAICS code of 611110. We have estimated that approximately 800 facilities would be subject to GHG reporting under the proposed regulation.

The proposed regulation provides specific reporting requirements for each industrial sector, defining which facility processes and greenhouse gases must be reported. In general, all facilities would be required to report their on-site stationary source combustion emissions of CO<sub>2</sub>, N<sub>2</sub>O (nitrous oxide), and CH<sub>4</sub> (methane). Some industrial sectors, such as cement and refineries, would also report their process emissions, which occur from chemical or other non-combustion activities. Facilities would report fugitive emissions as specified in the regulation. The CO<sub>2</sub> emissions from biomass-derived fuels would also be separately identified during reporting. In addition, the proposal would require that those reporting provide their consumption of purchased or acquired electricity and thermal energy, referred to in the regulation as indirect energy usage. An option is also provided in the regulation for the voluntary reporting of mobile source emissions within the context of an entity-wide California emissions report.

All data specified in the regulation would be reported to the ARB annually. The first emissions reports must be submitted in 2009 based on 2008 emission levels. To allow facilities to develop reporting systems, train personnel, collect data, and install any necessary equipment, a phase-in time is provided in which the reporting and verification requirements are less stringent for the first reporting year. Following this phase-in, those reporting must meet the more comprehensive reporting and verification requirements specified in the proposed regulation.

Except for the emissions reports submitted in 2009, submitted emissions and other data would undergo third-party verification to ensure the completeness and accuracy of the data, and to confirm the use of required methods in preparing the emission estimates. Under the proposal, the verification of facility emissions reports would be performed annually or triennially, depending on the complexity of the emission source. Either an air pollution control district/air quality management district or a private contractor could perform verification services, provided they met

specified education, experience, and training qualifications. Approval to perform verification services also involves a screening for conflict of interest by ARB.

Other items included in the proposed regulation and discussed in the ARB staff report are the detailed quantification and reporting requirements for each industrial sector, required elements of verification services, emissions verifier accreditation requirements, specifications for claiming confidential data, and document retention and record keeping requirements. Complete details are provided in the proposed regulation and staff report which are available here:

<http://www.arb.ca.gov/regact/2007/ghg2007/ghg2007.htm>

### **COMPARABLE FEDERAL REGULATIONS**

Currently there are no federal statutes requiring comprehensive facility reporting of greenhouse gas emissions. However, the United States Environmental Protection Agency's Acid Rain Program requires the reporting of CO<sub>2</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions from certain fossil fueled power plants as part of its program to reduce atmospheric levels of sulfur dioxide and nitrogen oxides, which cause acid rain (see Title 40, Code of Federal Regulations, section 72.1 et seq.). Because of the very limited nature of this federal regulation related to GHG emissions reporting, the proposed ARB regulation is not duplicative of the federal requirements.

### **AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS**

The ARB staff has prepared a staff report or Initial Statement of Reasons (ISOR) for the proposed regulation, which includes a summary of the economic and environmental impacts of the proposal. The ISOR is entitled: "Staff Report: Initial Statement of Reasons for Rulemaking: Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (Assembly Bill 32)."

Copies of the ISOR and the full text of the proposed regulatory language may be accessed on the ARB's web site listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, CA 95814, or by calling (916) 322-2990 within the 45 days prior to the scheduled hearing on December 6, 2007.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on the ARB's web site listed below.

Inquiries regarding the substance of the proposed regulatory action may be directed to the designated agency contact persons, Mr. Doug Thompson, Manager of the Climate Change Reporting Section, Planning and Technical Support Division at (916) 322-7062 or by e-mail at [dthompso@arb.ca.gov](mailto:dthompso@arb.ca.gov), or Mr. Patrick Gaffney, Staff Air Pollution Specialist, at (916) 322-7303 or by e-mail at [pgaffney@arb.ca.gov](mailto:pgaffney@arb.ca.gov).

Further, the agency representative and designated back-up contact persons to whom nonsubstantive inquiries concerning the proposed administrative action may be directed are Ms. Alexa Malik, Manager, Board Administration & Regulatory Coordination Unit (916) 322-4011, or Ms. Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board staff has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB Internet site for this rulemaking at: <http://www.arb.ca.gov/regact/2007/ghg2007/ghg2007.htm>

### **COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED**

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by public agencies, private persons and businesses in reasonable compliance with the proposed regulatory action are presented below. A detailed assessment of the economic impacts of the proposed regulation is included in the Initial Statement of Reasons for this item.

The Executive Officer has made an initial determination that the proposed regulatory action will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons. Because of the generally low reporting costs relative to typical facility revenues, the affected businesses should be able to absorb the costs of the proposed regulation with no significant adverse impacts on their profitability. We do not expect a noticeable change in employment, business creation, elimination or expansion, or business competitiveness in California due the reporting requirements.

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses and determined that there will be a potential cost on private persons and businesses directly affected. Staff estimates that the total costs associated with meeting the greenhouse gas reporting requirements to be in the range of \$10 to \$50 million during the first and second years for businesses, local, and state government, with a midpoint estimate of approximately \$30 million. Third year and subsequent costs are anticipated to be in the range of \$6 to \$35 million annually statewide, with a midpoint estimate of approximately \$21 million. First and second year costs are higher due to the possible need for new equipment, sampling systems, training, and other start-up costs to meet the regulatory requirements. The ranges of the estimated costs are extremely wide because of the substantial variability in potential reporting and verification costs among facilities subject to the regulation. We anticipate costs to diminish over time as facilities incorporate GHG reporting into their normal business practices.

The specific cost for an individual facility subject to GHG reporting will generally depend on the complexity of the facility. Complex facilities with a large number of processes or which require ongoing monitoring of variable fuel streams, such as refineries, will have higher costs that could range from \$50,000 to over \$300,000 per year. Simple facilities such as those with only natural gas fired boilers can use default emission factors to estimate their GHG emissions, and their costs will likely be in the \$3,000 to \$20,000 per year range. Medium complexity facilities such as cement manufacturing plants or cogeneration plants would likely have annual reporting and verification costs in the range of \$7,000 to \$50,000. The vast majority of facilities and entities subject to reporting (over 90%) will fall within the low and medium complexity categories. Staff anticipates that the additional costs for reporting can be easily absorbed under existing operating expenses for most entities and facilities.

The Executive Officer has also determined, pursuant to title 1, CCR, section 4, that the proposed regulatory action will affect small businesses. Staff estimates that a maximum of 30-60 small business may be affected in California. We have attempted to minimize costs to these businesses by providing simplified emission estimation methods and less frequent verification for a majority of facilities anticipated to be small businesses. Based on the types of small business expected to be impacted and the kinds of GHG generating activities present at these facilities, the reporting and verification costs for a typical small business subject to the regulation should range from \$3,000 to \$15,000 per year.

Some public agencies could also be subject to GHG reporting, such as certain county or city owned sewage treatment works or landfills, various utility districts or publicly owned electricity providers, some State universities, and other State facilities that emit more than 25,000 metric tonnes of CO<sub>2</sub> from stationary combustion sources. The Department of Water Resources is also expected to have a reporting requirement related to imported power. These local and state government agency GHG reporting costs are anticipated to be less than \$1 million per year statewide.

As described above, the proposed regulatory action will impose a mandate upon and create costs to some local agencies. Because the regulatory requirements apply equally to all reporting categories and unique requirements are not imposed on local agencies, the Executive Officer has determined that the proposed regulatory action imposes no costs on local agencies that are required to be reimbursed by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, and does not impose a mandate on local agencies that is required to be reimbursed pursuant to Section 6 of Article XIII B of the California Constitution.

An additional State cost will be incurred by the ARB to administer the reporting program. These costs include start-up costs to develop reporting tools and training materials, as well as annual costs for new staff to implement the reporting and verification program and maintain the reporting tool. Staff estimates that the initial ARB start-up costs will be roughly \$600,000, with annual ARB operational costs of approximately \$1 million to administer the program.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action will not result in a loss of jobs within the State of California, or the elimination of existing businesses within the State. It is likely that the regulatory action will create the need for technical support for developing GHG emissions estimates, providing laboratory and other services, and providing emission verification services. It is anticipated that some of these services will be provided by existing companies and staffing; however, we anticipate that this regulatory action would result in some additional jobs within California to provide these services, and the expansion of some existing businesses. This regulatory action may also result in the creation of a few new businesses in California to provide these services.

Pursuant to Government Code sections 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action will not create costs or savings in federal funding to the state, or costs or mandate to any school district whether or not reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the ARB's Executive Officer has found that the proposed GHG reporting requirements which apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

Before taking final action on the proposed regulatory action, the Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board, would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the proposed action.

### **SUBMITTAL OF COMMENTS**

The public may present comments relating to this matter orally or in writing at the hearing, and in writing or by e-mail before the hearing. To be considered by the Board, written submissions not physically submitted at the hearing must be received **no later than 12:00 noon, December 5, 2007**, and addressed to the following:

Postal Mail: Clerk of the Board, Air Resources Board  
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Facsimile submittal: (916) 322-3928

To ensure that your comment will be available for consideration it is important that your comment is received by the deadline.

Please note that under the California Public Records Act (Government Code section 6250 et. seq.), your written and oral comments, attachments, and associated contact information becomes part of the public record and can be released to the public upon request. This includes personal information provided with your comments, such as your home address, your home phone number, and your personal email address. Additionally, your comments, attachments, and associated contact information may become available via internet search engines.

The Board requests but does not require that 30 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The Board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

### **STATUTORY AUTHORITY AND REFERENCES**

This regulatory action is proposed under that authority granted to the ARB in sections 38510, 38530, 38580, 39600, 39601, and 41511 of the Health and Safety Code. This action is proposed to implement, interpret and make specific sections 38530, 38580, 39600, and 41511 of the Health and Safety Code.

### **HEARING PROCEDURES**

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Title 2, Division 3, Part 1, Chapter 3.5 (commencing with section 11340) of the Government Code.

Following the public hearing, the Board may adopt the regulatory language as originally proposed or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language as modified could result from the proposed regulatory action. In the event that such modifications are made, the full regulatory text, with the modifications clearly indicated, will be made available to the public for written comment at least 15 days before it is adopted.

The public may request a copy of the modified regulatory text from the ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1st Floor, Sacramento, CA 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

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Tom Cackette  
Acting Executive Officer

Date: October 9, 2007