

## UPDATED INFORMATIVE DIGEST

### ADOPTION OF A REGULATION FOR THE MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS

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

#### **Background:**

In 2006, the legislature passed and Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (AB 32; Stats. 2006, chapter 488). The Act 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.

The Act 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.

The mandatory reporting of GHG emissions is an important component of AB 32. In order to reduce GHG emissions, it is first necessary to establish an effective program to estimate, report, and track these emissions. This requires an accurate and verified source of facility-specific GHG emissions data. AB 32 therefore 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 Climate Action Registry (CCAR) 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 Regulatory Action**

The purpose of the 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 provide consistency with the standards and protocols of CCAR where appropriate and to the maximum extent feasible.

The GHG reporting regulation requires annual emissions reporting from facilities that account for approximately 94 percent 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 regulation, the facilities that are required to annually report their GHG emissions 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 regulation 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 protocols.

Operators subject to reporting must prepare and submit their GHG emissions estimates and other data as specified in the regulation. Under the regulation greenhouse gas emissions reporting is 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. Those

facilities or sources not required to report include nuclear, hydroelectric, wind, or solar electricity generating sources, hospitals, primary and secondary schools, and backup or emergency generators. We have estimated that approximately 800-1000 facilities are subject to GHG reporting under the proposed regulation.

The regulation provides specific reporting requirements for each industrial sector, defining which facility processes and greenhouse gases must be reported. In general, all facilities are 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, must also report their process emissions, which occur from chemical or other non-combustion activities. Facilities report fugitive emissions as specified in the regulation. The CO<sub>2</sub> emissions from biomass-derived fuels will be separately identified during reporting. In addition, the regulation requires 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 will 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 requirements are less stringent for reports filed in 2009. Verification is optional for these reports. Beginning with reports filed in 2010 covering 2009 emissions, those reporting must meet the complete reporting and verification requirements specified in the regulation, which includes 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. The verification of facility emissions reports would subsequently 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 can perform verification services, provided they meet specified education, experience, and training qualifications, and are accredited by the ARB. Also, to help insure that verifiers are impartial and unbiased in their verification responsibilities, the ARB requires a conflict of interest screening before verifiers can perform verification services for individual facility operators.

Other items included in the 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

regulation, Staff Report, and Final Statement of Reasons, which are available here: <http://www.arb.ca.gov/regact/2007/ghg2007/ghg2007.htm>

### **The Board's Action**

At its December 6, 2007, public hearing, the Air Resources Board (the Board) adopted Resolution 07-54, which approved the adoption of these regulations. At the hearing, the staff presented and the Board approved modifications to the regulation originally proposed in the Staff Report released October 19, 2007, in response to comments received since the Staff Report was published. In addition, the Board directed staff to modify the emissions verification schedule to remove a one-year delay initially provided for some facilities subject to a triennial verification schedule. The Board also directed staff to make the modified text available for a supplemental public comment period of at least 15 days.

### **First Fifteen-Day Changes**

Text of the modifications to the originally proposed regulation was made available for a supplemental 20-day comment period by issuance of a "Notice of Public Availability of Modified Text." This notice and a copy of the Resolution 07-54 were released on May 15, 2008.

A variety of changes were made to the originally proposed regulation to clarify the reporting requirements and address comments received during the initial 45-day comment period and Board hearing. These changes included, but were not limited to: modifications to clarify applicability provisions and to add and delete some definitions; changes in the de minimis and level of accuracy specifications; an update to the verification schedule as specified by the Board; a variety of clarifications regarding reporting requirements; updates to the individual industry sector reporting requirements; minor modifications to the verification requirements; and updates and corrections to emission factors and other information in Appendix A. A more complete listing of the changes to the regulation is included in the Notice of Public Availability of Modified Text, dated June 5, 2008. The notice and the revised regulation in underline/strikeout format are available here: <http://www.arb.ca.gov/regact/2007/ghg2007/ghg2007.htm>

### **Second Fifteen-Day Changes**

Based on comments received during the first 15-day comment period, additional clarifications and corrections were made to the regulation. In accordance with section 11346.8 of the Government Code, text of the additional modifications to the originally proposed regulation was made available for a second supplemental 15-day comment period by issuance of a "Notice of Public Availability of Modified Text." The additional changes primarily include edits to revise potentially unclear language, the correction of typos and minor errors, and edits to ensure internal

consistency within the regulation. The second 15-day notice, which summarizes each of the changes, was released on June 30, 2008. The notice and the regulation with the additional revisions shown is 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 fuel burning 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.