



## California Air Resources Board

### Mandatory Greenhouse Gas (GHG) Emissions Reporting

#### Introduction:

The California Air Resources Board (ARB) approved a mandatory reporting regulation on December 6, 2007 fulfilling one of its responsibilities tasked in the California Global Warming Solutions Act of 2006 (AB32). This regulation established a statewide reporting system for reporting GHG's. The only gases which are covered by the regulation are referred to as the "Kyoto Gases" - Carbon Dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF<sub>6</sub>). Under the reporting regulation, large emitters of greenhouse gases were required to begin collecting GHG data on January 1, 2008. The regulation required reporting of 2008 GHG emissions in 2009. Beginning in 2010, GHG emissions reports are required to be verified by an accredited verification body.

#### Is Your Facility Covered?

The type of facilities this regulation applies to include:

- cement plants,
- petroleum refineries
- hydrogen plants
- electricity generating facilities
- electricity retail providers and electricity marketers,
- cogeneration facilities
- facilities with general stationary combustion

If your facility type is listed above you may still be off the hook. Many of the facility types listed above have CO<sub>2</sub> emissions thresholds which your facility would have to exceed for the rule to be applicable.

If you operate a cement plant there is no minimum CO<sub>2</sub> emission threshold. Every cement plant in the state is subject to the regulation. Cement plants are required to report emissions produced from the manufacturing process as well as stationary combustion equipment, fugitive emissions, indirect energy use and efficiency metrics.

If you operate a petroleum refinery your facility must equal or exceed 25,000 metric tonnes of CO<sub>2</sub> emissions for the rule to be applicable. Refineries will report emissions created by stationary combustion, fuel and feedstock consumption, hydrogen plant emissions (if any), process emissions, fugitive emissions, flaring emissions, electricity generating units (if any), cogeneration emissions (if any), and indirect energy purchases.

If you operate a hydrogen plant with CO<sub>2</sub> emissions greater than or equal to 25,000 metric tonnes, you are subject to the regulation. Hydrogen plants will report fuel and feedstock consumption, production, emission from stationary combustion, process emissions, fugitive emissions, flaring emissions, transferred CO<sub>2</sub> and CO, process vent emissions, electricity generating units (if any), cogeneration emissions (if any), and indirect energy purchases.

If you operate an electricity generating facility with greater than or equal to 1 megawatt (MW) nameplate capacity and CO<sub>2</sub> emissions greater than or equal to 2,500 metric tonnes you are subject to this regulation.



Electricity generating facilities will report fuel consumption, high heating value of fuel, average carbon content of fuel, GHG emissions from combustion, process emissions, fugitive emissions, wholesale sales out of state and net power generated.

If you are a retail provider or marketer of electricity you are subject to the regulation with no minimum threshold. There are many specifics relating to these entities but broadly you will be reporting information about electricity transactions such as the amount of electricity in MWh, the facility to which the electricity is sold, the region of origin of the electricity and the amount of power which is null power. Additionally the report must include the power wheeled through California. All the emissions of GHG's from the transmission and distribution systems under your control must also be reported.

If you operate a cogeneration facility with greater than or equal to 1 megawatt (MW) nameplate capacity and CO<sub>2</sub> emissions greater than or equal to 2,500 metric tonnes you are subject to this regulation. Cogeneration facilities will report fuel consumption, high heating value of fuel, average carbon content of fuel, GHG emissions from combustion, process emissions, fugitive emissions, wholesale sales out of state and net power generated. Additionally, you will report thermal energy production and distributed thermal energy.

If you are the operator of a facility with general stationary combustion equipment which emits greater than or equal to 25,000 metric tonnes per year you are subject to the regulation. Stationary combustion sources report emissions of GHGs from the stationary combustion sources, fuel consumption, fuel carbon content, annual high heating value and indirect energy use.

Starting in 2009 all of these covered facilities are required to submit annual reports to the ARB. The ARB estimates 850 facilities will be covered by the regulation and these facilities account for 94% of point source CO<sub>2</sub> emissions within the state.

### **So I'm In, What Do I Need To Do?**

The rule requires that data collection begin on January 1, 2008 with the first emission reports due to ARB by April 1, 2009 for general stationary combustion, electricity generating and cogeneration facilities, the rest of the facilities report on June 1, 2009. The report is composed and submitted online through an ARB database.

### **Third-party verification is required!**

After the reports have been submitted to the ARB the facility must hire a third party verification body accredited by CARB to review the report and issue an opinion on the report. The verification opinion must be submitted to the ARB within six months of the initial report deadline. After the verification opinion has been submitted to ARB the reporting process is done for the year.

### **Okay, I'm In, But can I Get Out?**

If you are initially required to report you'll have to go through the process, probably for at least three (3) years. However, you can get out by reducing your GHG emissions as follows:

- Three (3) consecutive years of emissions below 20,000 metric tons of CO<sub>2</sub>e per year for every facility except electricity generating and cogenerating facilities
- Three (3) consecutive years of emissions below 2,000 metric tons of CO<sub>2</sub>e per year for electricity generating and cogenerating facilities

Any time a facility exceeds its applicability threshold after cessation of reporting it must begin reporting again.



## **Does the EPA's Rules Override the States Rule's?**

In a word, no. USEPA explicitly states that their rule does not override state GHG reporting requirements. If you have a facility with EPA mandatory reporting requirements you will probably need to submit two different reports, one to ARB and one to USEPA. If you voluntarily choose to report to the Climate Action Registry, Climate Leaders, Chicago Climate Exchange or some other program and you continue to do so, that would require yet another report

## **What Should I Do Next?**

If you think you might be subject to the rule, by January 1, 2008 you should have systems in place to collect and store data in accordance with the requirements of the new rule. You should also make an initial determination, based on emission calculations, of whether you will be subject to the rule.

## **How Can I Find Out More Information?**

More information on the rule is available through ARB on their web site at:

<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>

## **How Can Associates Environmental Help?**

Associates Environmental's staff includes Greenhouse Gas Verifiers accredited by the California Air Resources Board (ARB) who are prepared to help you through what can be a confusing reporting process. We are prepared to help you:

- Perform an analysis to determine whether you are subject to the rule.
- Identify differences between current recordkeeping procedures and those required by the rule.
- Prepare a compliance plan that outlines the steps necessary to achieve full compliance.
- Prepare GHG Monitoring Plans and perform emission calculations.
- Document data management procedures.

## **How Do I Contact Associates Environmental?**

Call our lead Greenhouse Gas consultant, Drew Delaney or send him an e-mail. His contact information appears below.

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