

Greenhouse Gas Emission Requirement for Refrigerants to Take Effect January 1



Certain facilities with stationary, non-residential refrigeration systems will become subject to new requirements on January 1, 2011.

The rules are among “early action measures” approved by the California Air Resources Board (ARB) to implement AB 32, the Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gas (GHG) emissions be reduced to 1990 levels by 2020.

2011 Regulation

The regulations, part of the Refrigerant Management Program (RMP), require that facilities with stationary non-residential refrigeration systems with more than 50 pounds of a high-global warming potential (GWP) refrigerant begin leak detection inspections, repair and recordkeeping.

Refrigerant distributors, wholesalers and reclaimers also are required to begin recordkeeping, and are prohibited from selling, purchasing or disposing high-GWP refrigerants.

Servicing technicians will be required to be certified by the U.S. Environmental Protection Agency (EPA) and cylinders will need to be properly evacuated before disposal.

Businesses Affected

The ARB estimates that approximately 64 percent of the facilities potentially affected by the 2011 RMP requirements are small businesses.

Primary Impact

These regulations will primarily affect businesses that have refrigeration systems with more than 50 pounds of high-GWP refrigerant. These businesses typically include:

- Supermarkets and large grocery stores;
- Food and beverage processors;
- Cold-storage warehouses; and
- Facilities using industrial-process cooling.

Generally Not Affected

Business that generally do not have these types of refrigeration systems are:

- Bars and restaurants;
- Gas stations;
- Liquor stores; and
- Office buildings.

Potential Benefits

The ARB predicts the regulations also will lead to cost savings for businesses. According to ARB, the regulations will reduce high-GWP emissions by 8 million metric tonnes of carbon dioxide equivalent, the equivalent of removing 1.4 million cars and light trucks from the road each year.

As a direct result of reduced refrigerant consumption, the ARB estimates a cost savings of \$2 per metric tonne of carbon dioxide equivalent in emissions reduced.

Future Deadlines

For the next six years, other businesses will become subject to the refrigerant management program, depending on the largest refrigeration system used at a facility.

Beginning January 1, 2012:

- Facilities with large refrigeration systems of 2,000 pounds or greater of high-GWP refrigerant are required to register with the ARB, submit an annual report and pay annual fees;

- Distributors, wholesalers and reclaimers must report annually.

Beginning January 1, 2014:

- Facilities with medium refrigeration systems with greater than or equal to 200 pounds, but less than 2,000 pounds, of high-GWP refrigerant must register, submit an annual report, and pay annual fees.

Businesses Affected

- Supermarkets and large grocery stores
- Food and beverage processors
- Cold-storage warehouses
- Facilities using industrial-process cooling

Source: California Air Resources Board

Beginning January 1, 2016:

- Facilities with small refrigeration systems with greater than 50 pounds, but less than 200 pounds, of high-GWP refrigerant must register.

Refrigerant Management Program

The RMP establishes regulations for refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale and disposal.

ARB reports the program is designed to complement U.S. EPA and South Coast Air Quality Management District regulations and better control emissions of ozone-depleting substances and substitute refrigerants.

More Information

High-GWP refrigerants include chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC) and hydrofluorocarbons (HFC) refrigerants. Ammonia and carbon dioxide refrigerants are not high-GWP.

To determine the refrigerant charge of a refrigeration system, businesses should contact the manufacturer of the system or their refrigeration system service provider.

For further information regarding AB 32, visit www.arb.ca.gov.