

**GUIDELINE FOR  
AIR QUALITY MANAGEMENT DISTRICTS  
WHEN PROCESSING  
A PERMIT FOR A TEMPORARY STEAM PLANT (RENTAL BOILER)**

The purpose of this guideline is to apprise members of air pollution control districts and other relevant regulatory agencies on how the members of the American Boiler Manufacturers Association and its Rental Boiler Group feel rental boilers should be treated in the permit-issuing process relative to being considered as new sources of emissions.

**Recommendation**

Rental boilers are typically newer units fitted with Low NO<sub>x</sub> burners and incorporating the latest technology. Most often, rental boilers emit considerably lower levels of pollutants, particularly NO<sub>x</sub> and CO, than the units they are replacing. Most rental companies will rent an SCR to get down to single-digit NO<sub>x</sub> on refinery fuels where required. Also, when fitted with an economizer heating the feedwater, they generally operate at higher efficiency than the units they replace. As a result, they burn less fuel and release fewer pollutants.

Therefore, since, in the majority of cases, a rental boiler will produce fewer pollutants than the unit it replaces, it is the opinion and recommendation of the American Boiler Manufacturers Association and its Rental Boiler Group, that Rental Boilers not be subjected to the same rules and regulations as those established for new source boiler installations.

**Background**

There are many factors that determine the reliability and availability of a steam supply. Whether the steam is used to power a system or as part of a process, mechanical engineers and power plant operators know that, in the vast majority of cases, management expects the system to run twenty-four (24) hours a day throughout the year. Real-world conditions often make achieving this goal impossible.

Occasionally, a temporary steam plant is needed to replace or to augment a permanent system for one or more of the following reasons:

- Unplanned outages for emergency repairs
- Planned outages for repairs, maintenance, or upgrades
- Increased capacity requirements to handle peak loads
- Testing new processes
- Research and development projects
- Delays in bringing new systems on line.

The first two of these above applications, unplanned and planned outages, constitute over 75% of the reasons temporary steam plants are activated.

**Definition of Outages**

- A. An unplanned outage occurs when one or more of the following events exist:

- A boiler incident where the boiler pressure vessel is damaged as a result of an accident.
- An annual inspection reveals that major repairs are required prior to placing the boiler back in operation. This shutdown may be mandated by the regulatory authority or deemed necessary to insure safe and reliable operation of the boiler.
- A mandate by law to retrofit an existing boiler with new emission control devices within a limited time frame.

B. A planned outage occurs when one or more of the following exist:

- A shutdown is scheduled to perform maintenance, service or overhaul
- A boiler is upgraded to meet new emission levels required by law that will be enforced in the near future.
- New emission control devices are installed on a boiler or an existing boiler is replaced with a new unit.

### **Rental Boiler Industry**

The rental boiler industry provides steam energy to industrial, electrical, institutional, and commercial plants on a temporary basis. Rental boilers are generally mobile and designed to be transported by road or rail, usually on short notice. Many are arranged on specially designed trailers or railway cars to facilitate shipping. A minimum amount of time and labor are required to hook up these units to existing steam facilities.

Usually, when rental boilers are installed, they are used to replace units that are shut down as a result of unplanned or planned outages, as described above. Getting the facility back into service in the least amount of time is the prime objective.

### **The American Boiler Manufacturers Association**

The American Boiler Manufacturers Association (ABMA) is the national, nonprofit trade association of manufacturers of commercial/institutional, industrial and power-generating boilers, related fuel burning equipment, users of boiler and boiler-related equipment, and companies which provide products and services to the boiler industry. Based in Arlington, Virginia, the ABMA represents the companies that design and build the systems that combust the fuels that generate the steam and hot water that powers and comforts America and the world.