

record all of the data necessary to determine if you are in compliance with the emission limitations. Your records must be in a form suitable and readily available for review. You must also keep each record for 5 years following the date of each occurrence, measurement, maintenance, report, or record. Records must remain on site for at least 2 years and then can be maintained off site for the remaining 3 years.

You must submit a compliance report semiannually for each new or reconstructed stationary combustion turbine that must comply with the CO emission reduction limitation. This report must contain the company name and address, a statement by a responsible official that the report is accurate, a statement of compliance, or documentation of any deviation from the requirements of the proposed rule during the reporting period.

### III. Rationale for Selecting the Proposed Standards

#### A. How Did We Select the Source Category and Any Subcategories?

Stationary combustion turbines can be major sources of HAP emissions and, as a result, we listed them as a major source category for regulatory development under section 112 of the CAA. Section 112 of the CAA allows us to establish subcategories within a source category for the purpose of regulation. Consequently, we evaluated several criteria associated with stationary combustion turbines which might serve as potential subcategories.

We identified six subcategories of stationary combustion turbines located at major sources: (1) Emergency stationary combustion turbines, (2) limited use stationary combustion turbines, (3) stationary combustion turbines which fire landfill gas or digester gas as their primary fuel, (4) stationary combustion turbines of less than 1 MW rated peak power output, (5) stationary diffusion flame combustion turbines, and (6) stationary lean premix combustion turbines.

Stationary combustion turbines can be classified as either diffusion flame or lean premix. We examined formaldehyde test data for both diffusion flame and lean premix stationary combustion turbines and observed that uncontrolled formaldehyde emissions for stationary lean premix combustion turbines are significantly lower than those of stationary diffusion flame combustion turbines. An analysis of the formaldehyde emissions data shows that uncontrolled formaldehyde emissions from stationary lean premix combustion

turbines are comparable to controlled formaldehyde emissions from stationary diffusion flame combustion turbines controlled with oxidation catalyst systems. Due to the difference in the two technologies, we decided to establish subcategories for diffusion flame and lean premix stationary combustion turbines.

We identified emergency stationary combustion turbines as a subcategory. Emergency stationary combustion turbines operate only in emergencies, such as a loss of power provided by another source. These types of stationary combustion turbines operate infrequently and, when called upon to operate, must respond without failure and without lengthy periods of startup. These conditions limit the applicability of HAP emission control technology to emergency stationary combustion turbines.

Limited use stationary combustion turbines were also identified as a subcategory. These types of stationary combustion turbines are operated 50 hours per calendar year or less. They are used primarily to stabilize electrical power voltage levels during periods of brown outs to prevent damage to sensitive electronic equipment. As with emergency stationary combustion turbines, they are operated infrequently and, when called upon to operate, must respond without failure and without lengthy periods of startup. These conditions limit the applicability of HAP emission control technology.

Similarly, stationary combustion turbines which fire landfill gas or digester gas as their primary fuel were identified as a subcategory. Landfill and digester gases contain a family of chemicals referred to as siloxanes, which limit the application of HAP emission control technology.

Stationary combustion turbines of less than 1 MW rated peak power output were also identified as a subcategory. We believe these small stationary combustion turbines are few in number and, to our knowledge, none use emission control technology to reduce HAP. Given the very small size of these stationary combustion turbines and the lack of application of HAP emission control technologies, we have concerns about the applicability of HAP emission control technology to them.

#### B. What About Stationary Combustion Turbines Located at Area Sources?

The proposed rule does not apply to stationary combustion turbines located at an area source of HAP emissions. In developing our Urban Air Toxics Strategy, we identified area sources we believe warrant regulation to protect the

environment and the public health and satisfy the statutory requirements in section 112 of the CAA pertaining to area sources. Stationary combustion turbines located at area sources were not included on that list. As a result, the proposed rule does not apply to these stationary combustion turbines.

#### C. What Is the Affected Source?

The proposed rule applies to any stationary combustion turbine located at a major source. Consequently, stationary combustion turbines located at major sources of HAP emissions are the affected source under the proposed rule.

#### D. How Did We Determine the Basis and Level of the Proposed Emission Limitations for Existing Sources?

As established in section 112 of the CAA, the MACT standards must be no less stringent than the MACT floor. The MACT floor for existing sources is the average emission limitation achieved by the best performing 12 percent of existing sources.

##### 1. MACT Floor for Existing Diffusion Flame Combustion Turbines

To determine the MACT floor for existing stationary diffusion flame combustion turbines, we primarily consulted two databases: an inventory database and an emissions database. The MACT floors and MACT for stationary diffusion flame combustion turbines located at major sources were developed through the analyses of these databases.

The inventory database provides population information on stationary combustion turbines in the United States (U.S.) and was constructed in order to support the proposed rulemaking. Data in the inventory database are based on information from available databases, such as the Aerometric Information Retrieval System (AIRS), the Ozone Transport and Assessment Group (OTAG), and State and local agencies' databases. The first version of the database was released in 1997. Subsequent versions have been released reflecting additional or updated data. The most recent release of the database is version 4, released in November 1998.

The inventory database contains information on approximately 4,800 stationary combustion turbines. The current stationary combustion turbine population is estimated to be about 8,000 turbines. Therefore, the inventory database represents about 60 percent of the stationary combustion turbines in the U.S. At least 90 percent of those turbines are assumed to be diffusion flame combustion turbines, based on