



## **HAZARDOUS WASTE FACILITIES REQUIREMENTS FOR INCINERATORS**

Region III Library  
Environmental Protection Agency

### **STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE FACILITIES**

The Resource Conservation and Recovery Act of 1976 (RCRA) calls for a national program to control hazardous waste. All wastes identified as hazardous in the regulations issued under Subtitle C of RCRA are tracked by manifests from where they originate to their final disposition at a facility having authority from the U.S. Environmental Protection Agency (EPA) or an authorized State to treat, store, or dispose of hazardous waste. Specific regulations for carrying out RCRA Subtitle C are set forth in the Code of Federal Regulations (40 CFR Parts 260 to 266 and 122 to 124). The Federal hazardous waste program became effective November 19, 1980.

Among other things, EPA's regulatory program contains standards for the owners and operators of hazardous waste treatment, storage, or disposal facilities. There are two types of standards--Interim Status Standards, which must be complied with by all facilities in Interim Status (those that are in existence, have notified EPA, and have applied for a permit) (Part 265), and General Standards, which will be the basis for the issuance of permits over time to both existing and new facilities (Part 264).

As part of the standards for facilities, EPA, in January 1981, is establishing regulations covering several aspects of incinerator operations:

- o Interim Status Standards in final form. They were promulgated on an interim final basis on May 19, 1980, and became effective on November 19, 1980.
- o General Standards on an interim final basis. They will be effective in July 1981.
- o information required for Part B of a permit application for an incinerator and criteria for burn permits, on an interim final basis (Part 122).
- o proposal to modify the General Standards to allow a variance in acceptable incinerator emissions.

### **Applicability**

The Interim Status and General Standards apply to incinerators treating hazardous waste, except those that are hazardous solely because of ignitability. Also, combustion of wastes primarily for recovery of their heat is not considered incineration and, thus, is exempt from these standards.

### **Interim Status Standards**

Under the Interim Status Standards, the owner or operator of an incinerator must:

- o analyze a new waste to establish normal operating conditions and to determine the type of pollutants that might be emitted
- o feed waste during start-up and shut-down only after the incinerator reaches normal operating conditions
- o carry out periodic monitoring and daily inspections
- o when closing an incinerator, remove all hazardous waste (including ignitable waste) and hazardous waste residues (for example, ash and scrubber sludges) from the site

### **General (Permit) Standards**

Under the General Standards, required waste analysis takes two forms.

- o Each waste feed must be analyzed as part of each permit application and whenever a permit is modified or a trial burn permit is sought. (Waste feed, rather than waste as received, must be analyzed, since wastes are often mixed before combustion.)
- o Throughout the normal operation, the owner or operator must ensure that the waste feed does not deviate from that defined in his permit.

For each waste feed, the permit will specify Principal Organic Hazardous Constituents (POHCs) that must be destroyed or removed as required by the performance standards. PHOCs are selected primarily on the basis of how hard they are to incinerate, but their concentration in waste feed is also considered.

### **Operating Standards**

Three performance standards are at the heart of this regulation. The most important is:

- o An incinerator must achieve a destruction and removal efficiency (DRE) of 99.99 percent for each PHOC designated for each waste feed.

The two secondary performance standards are:

- o An incinerator burning hazardous waste containing more than 0.5 percent chlorine must remove 99 percent of the hydrogen chloride from the exhaust gas.
- o An incinerator burning hazardous waste must not emit particulate matter exceeding 180 milligrams per dry standard cubic meter.

The three performance standards are the goal of this regulation, but they cannot be monitored on a continuous basis. Instead, the regulation will be enforced on the basis of compliance with operating conditions (specified in the permit) that can achieve the performance standards. EPA can modify, revoke, or reissue a permit if tests indicate that the operating conditions fail to meet the performance standards.

Each permit specifies the waste feeds it allows and the operating conditions required for each. For all other waste feeds, the owner or operator must:

- o obtain a new permit or permit modification by demonstrating the operating conditions needed to achieve the performance standards
- o obtain a temporary burn permit

Each permit sets limits, on a case-by-case basis, for certain operating conditions (for example, waste feed rate and combustion temperature).

Three other operating requirements will be applied uniformly:

- o During start-up and shut-down of an incinerator, hazardous waste (except ignitable waste) can be fed only if the incinerator is at normal operating conditions.
- o Fugitive emissions from the combustion zone must be controlled.
- o A system must be available for automatically shutting off waste feed when operating requirements are violated.

Combustion temperature, waste feed rate, air feed rate, and carbon monoxide (downstream of the combustion zone and prior to the release to the atmosphere) must be monitored continuously, and the incinerator and associated equipment must be inspected daily.

The closure requirements are the same as for Interim Status.