

EPA Tightens Rules For Medical Waste Incinerators!

The U.S. Environmental Protection Agency (EPA) has issued new rules for medical waste incinerators. The Clean Air Act requires the EPA to conduct a review of the standards every five years. The final rules included:

1) New requirements for lower emissions from air pollutants; 2) Improved system to segregate and manage medical waste; 3) Removal of exemptions for emissions during startup, shutdown and malfunctions.

These improvements will result in decreased risks to the health of nearby residents from exposure to toxic contaminants from medical waste incinerators. The need for tighter restrictions to protect human health and the environment were reflected in comments made by BREDL staffers and others during an EPA public hearing on medical waste incineration in Research Triangle Park, NC, last January (see *The League Line, Winter, 2009*).

It appears the tide is turning, however slowly, against medical waste incineration. EPA cited the twenty-five percent reduction in the number of existing medical waste incinerators (from 76 to 57) operating in the US, and concluded that the tightened regulations will likely result in a further reduction in the number of incinerators, while moving them towards less expensive waste disposal alternatives, such as autoclaving.

While the trend toward less incineration is encouraging, our campaign to ***end all incineration*** continues. Our goal is not cleaner incinerators; it's no incinerators.

The final amendments to the regulations include:

- * Strengthened existing emission limits for all regulated pollutants;
- * Additional stack testing requirements for existing and new sources;
- * Additional monitoring requirements for new sources;
- * Annual inspections of emission control devices;
- * One-time visible emissions test of ash handling operations;
- * Procedures for test data submittal;
- * Revised waste management plan provisions.

The League's comments focused primarily on the following areas of concern:

1. Increased regulation of toxic air emissions: The new rules will reduce about 390,000 pounds of several pollutants released by medical waste incinerators each year including acid gases, carbon monoxide, particulate matter, dioxins/furans, nitrogen oxides, sulfur dioxide, and metals such as lead, cadmium, and mercury. The final emission limits will require improvements in performance for 50 of the 57 currently operating medical waste incinerators.

2. Incorporation of a waste management plan for segregation and recycling of medical wastes: EPA has placed new emphasis on waste management plans and reducing both the volume and toxicity of waste going to incinerators. Waste reduction and the elimination of toxics from the waste stream were major topics of the League's January comments to the EPA.

In addition to requiring facilities that operate their own incinerator to prepare waste management plans, commercial incinerators are now *required* to provide waste segregation training and education to all of their customers. The commercial incinerators must also make sure each customer develops its own plan for managing medical waste. The list of waste materials targeted for segregation and/or recycling was expanded to include: food waste, aluminum cans, metal-containing devices, batteries, PCB waste, pharmaceuticals, mercury found in dental waste, chlorinated plastics, paper and cardboard products. The removal of these products will result in lowered emissions of hydrogen chloride, lead, mercury, cadmium, dioxins, furans, carbon monoxide, and sulfur dioxide.

3. Removal of the exemption for startup, shutdown and malfunction (SSM):

An SSM, also known as a "by-pass event," is defined as "any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner, but does not include failures caused, in part, by poor maintenance or careless operation."

The EPA removed the exemption for emissions from SSMs based on the assumption that emissions are negligible because no waste should be combusted during these SSMs. The only emission should be from the burning of natural gas. Thus, the removal of the exemption would have little or no impact on a medical waste incinerator's ability to comply with emissions standards. The EPA says that no medical waste incinerator has ever done any emissions testing during a SSM, even adding that testing would be very difficult because it would "foul up the isokinetic emissions test methods."

With no data to support modifying the rules for SSMs, the EPA is taking a "wait-and-see" attitude and says it will assess SSMs on a case-by-case basis. In the event that medical waste incinerators, despite their best efforts, fail to comply with applicable standards during SSM events (as defined by the rule), EPA will determine an appropriate response based on, among other things, the good faith efforts of individual facilities to minimize emissions during SSM periods. How emissions from SSMs will be held to "applicable standards" without testing is questionable.

4. Incorporation of a plan for incentives for alternatives to incineration:

In response to many comments submitted regarding alternatives to medical waste incineration, EPA conducted an impact analysis of the final rule which compares the compliance option with an "alternative waste option involving on-site sterilization of the waste using an autoclave followed by landfilling of the sterilized waste. EPA selected the autoclave/landfilling option because it is a widely available and broadly used alternative.

Despite increases in solid waste and wastewater, if medical waste incinerators switched to the autoclave/landfilling alternative it would result in reductions of 1.52 million lbs of toxic air emissions per yr compared to 393,000 lbs per yr. based on the revised emission limits under the new rules. EPA estimates that the cost of the implementing the alternative would be about \$10.6 million, or roughly two-thirds of the estimated costs that medical waste incinerators will have to pay (\$15.5 million per year) to comply with the new rules.

To download the 234-page final notice, go to:

http://www.epa.gov/ttn/oarpg/t1/fr_notices/hmiwi_fr091509.pdf

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