Title V Changes
Regulatory Overview

New EPA Air Quality Standards
Overview

- History of the industry standards.
- What the heightened standards require?
- What are the goals of these new requirements?
- What is the timeline for implementation?
- How will it affect my healthcare facility?
- What is a Waste Management Plan?
- Will proper waste segregation help?
- How Stericycle can help.
EPA History

- In 1997 the EPA enacted new Air Quality source performance standards and emission guidelines for existing hospital, medical and infectious waste incinerators.

- After 15 years of litigation, all lawsuits to overturn the stringent air quality standards have been settled, performance standards requirements are set.

- The heightened standards were effective April 6, 2012. They include a “compliance window” in which increments of improvement are required by all Hospital Infectious Medical Waste Incinerator (HMIWI) operators until the compliance deadline of October 6, 2014.

- The EPA estimates that the more stringent air quality requirement will cost remaining incinerator operators tens of millions of dollars.
On September 15, 2009, the EPA issued final revisions to the September 1997 new source performance standards (NSPS) and emission guidelines to control emissions from existing hospital, medical, and infectious waste incinerators (HMIWI)

- The initial 1997 regulations caused the closure of most of the 2,400 medical waste incinerators across the country
- These original 1997 regulations required significant capital investment for improved air pollution control (APC) systems or “scrubbers”
- Operators of HMIWI remaining today now face more stringent requirements as a result of the recent regulatory ruling
A “Scrubber” system is an air pollution control device which removes some particulates and/or gases from incinerator exhaust stacks. A scrubber system can either use liquid to wash unwanted pollutants from a gas stream or it can be a system that injects a dry reagent or slurry into an exhaust stream to "wash out" acid gases. Scrubbers are one of the primary devices that control gaseous emissions.

Existing scrubbers will need to be modified to meet new emission limit standards.
Some highlights of the....

New EPA Air Emission Regulations and Performance Standards for Medical Waste Incinerators
What is the goal of the new regulation and performance standards?

To improve air quality overall!

As part of the EPA’s new ruling key emission reductions will include:

- Mercury by 89%
- Lead by 74%
- Hydrogen chloride by 85%
- Dioxin / furans by 68%

(A Furan is a colorless, flammable, highly volatile liquid with a boiling point close to room temperature. It is soluble in common organic solvents, including alcohol, ether and acetone, but is insoluble in water. It is toxic and may be carcinogenic.)
The Situation / New Developments

- EPA Air Quality rules are now more stringent
- Additional capital investments are required if currently operating incinerators are to comply with the new regulations
- Many “captive” facilities (hospital or facility owned) may choose to shut down
- A decrease in the number of incinerators is expected for the healthcare industry
- Stericycle is committed to meeting the regulations and is currently going through the permitting process for the needed APC upgrades
When do the new regulations take effect?

Compliance due date April 6, 2012
Compliance deadline October 6, 2014
Generator Regulatory Requirements:

The owner or operator of an affected facility (Healthcare provider) shall prepare a Waste Management Plan (WMP)

The WMP shall identify both the feasibility and the approach to separate certain components of solid waste from the healthcare waste streams in order to reduce the amount of toxic emissions from incinerated waste

The WMP should identify, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have

Source: 40 CFR §60.55c
What is the impact To You – the Generator?

- New training / education requirements for all generators who ship waste for treatment through HMIWI
- Education must include proper segregation of waste for incineration
- All generators using HMIWI must have a Waste Management Plan
How can you reduce the amount of incinerated waste?

- Assess the types of waste you are generating
- Implement training for all employees on waste identification and segregation
- Develop and maintain a Waste Management Plan to sustain waste segregation improvements and minimize incineration waste
- Work with your representative to look at alternative treatment options for different waste streams where available
Alternative Treatment Options

- Autoclave
- Microwave
- Rotoclave
- Chemclave
- Plasma Arch
- Gasification
- Electo-Thermal Deactivation
- Chemical treatment

**NOTE:** Though many alternative technologies have been introduced, a majority of the waste is still autoclaved. Some treatment alternatives may not be suitable for some waste streams such as pathological and trace chemotherapy waste. Many states still require incineration of these materials.
Helpful guidance on the new regulations, on waste segregation, WAP, Waste Mgmt Plan, etc

- Analyze your total mix of waste types
- Identify Regulated Medical Waste designated for incineration which could be reduced
- Facilitate training on proper waste segregation
- Share best practices
- Conduct audits to ensure adoption and compliance
- Provide posters illustrating proper packaging of incinerate only waste
- Work directly with the staff who packages the waste for shipment to ensure compliance
- Provide reports tracking your progress
- Provide additional guidance available through MyStericycle.com
Helpful Guidance

Waste that must be identified and segregated for incineration

- **Trace Chemotherapy Contaminated Waste** - RCRA Empty drug vials, syringes and needles, spill kits, IV tubing and bags, contaminated gloves and gowns, and related materials as defined in applicable laws, rules, regulations or guidelines.

- **Pathological Waste** - Human or animal body parts, organs, tissues and surgical specimen (decanted of formaldehyde, formalin or other preservatives as required per hazardous waste rules). Excludes complete humans remains (including heads, full torsos, and fetuses).

- **Non-RCRA Pharmaceuticals** - Must be characterized and certified as non-RCRA hazardous material by the generator. Excludes all DEA scheduled drugs, including controlled substance *

- **CALIFORNIA ONLY** - Solidified Suction Canisters - Suction canisters that have been injected with solidifier materials to control liquids or suction canisters made of high heat resistant plastics such as polysulfone.

*Consult Stericycle Representative for specific requirements
Help is Here!

- Look to MyStericycle.com for Waste Segregation Training
- Look to MyStericycle.com for a template for your Waste Management Plan
- Contact your local representative for additional help or regulatory updates
- Remember you can always refer to the EPA website http://www.epa.gov/ttn/atw/129/hmiwi/rihmiwi.html