Responsible Management of Regulated Waste

As one of the leading providers of specialized waste disposal services in the United States, Stericycle manages highly complex waste streams. With Stericycle, your treatment and disposal will always be environmentally responsible, government-approved, and fully compliant. We use both non-incineration, or alternative, and incineration technologies to treat medical waste.

While source reduction and recycling are always the first choice for waste handling, these methods are not always possible for biohazard or hazardous wastes due to regulations or industry best practices. In total, Stericycle directly managed approximately 2 billion pounds of materials for our customers – most of which is regulated as either biohazardous or RCRA hazardous.

For the vast majority of medical waste managed, an autoclave treatment method is used to eliminate potential pathogens from the waste stream. Incineration of medical waste is used for just 10% of Stericycle’s total medical waste volume. For hazardous materials, approximately 35% is treated or processed as alternative fuel or recycled instead of incinerating or going to landfill.

Source reduction begins at customer locations as they take advantage of industry leading services and support including:

- **Sharps Management Service** that features reusable containers for sharps waste. During 2014, this program diverted more than 18 million sharps containers from landfill.

- **Sustainable Solutions Services** that help consumer products and medical device manufacturers decompose non-salable products, recycling certain components and effectively handling hazardous materials. Services led to 36.9 million pounds of recycling during 2014.

- **Waste Handling Training** educates healthcare and retail workers on properly segregating waste to minimize incineration. Through online and in-person training sessions in 2014, more than 329,000 individuals took part in Stericycle trainings.

### Defining Treatment Processes

**Autoclave:** Autoclaving is the most common treatment method for medical waste. It utilizes steam at high temperature and pressure to kill pathogens rendering the waste safe before going to landfill. This method is suitable for sharps, needles, bloodied materials, or materials that do not require complete chemical destruction.

**Incineration:** Incineration burns regulated waste at elevated temperatures and reduces it to ash. Incineration is the recommended treatment option – and required by many state laws – for certain types of regulated waste such as pharmaceuticals, anatomical waste, or residues from chemotherapy treatment.
Enhancements Minimize Incineration Emissions

While Stericycle and the healthcare industry overall have made significant progress in reducing the use of incineration, it is still required to ensure safe disposal of certain wastes generated in medical treatments. During 2014, improvements were made in the pollution control levels at each of Stericycle’s existing U.S. medical waste incineration facilities.

Standards for Hospital Medical Infectious Waste Incinerators (HMIWI) are regulated by the United States Environmental Protection Agency (EPA). As of October 1, 2014, requirements under Title V of EPA’s Clean Air Act increased for these facilities bringing the most stringent emission control requirements ever to the industry. As regulations have increased, the required investment and expertise to maintain HMIWI facilities has also increased, which has led to a dramatic decline in the number of available facilities. The EPA reports that there are now fewer than 35 HMIWI in operation today, down from more than 2,400 registered in 1997.

With new lower limits in place, Stericycle’s expertise in emission control has increased significantly. State-of-the-art air scrubbers and carbon beds have been installed. Higher capacity generators were added to help prevent interruptions in emissions control processes. New routines for facility management, maintenance, and testing controls have been put into place to ensure continued compliance and to consistently operate below the more stringent standards. As data show, Stericycle is performing well below the allowable limits for incineration emissions.

As the leader in medical waste management, Stericycle is committed to ensuring the needs of customers for incineration are met in safe and compliant facilities. While continuing to seek cost-effective opportunities to improve incineration operations.

As the leading provider of medical waste disposal services, protecting people and the environment from risks associated with biohazards is at the heart of what we do.

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