

HOSPITAL WASTE MANAGEMENT



a P.W. Grosser Consulting, Inc. Company

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Special points of interest:

- **New, Simpler Pharmaceutical Waste Management Rules are Coming**
- **SQGs have more options for pharmaceutical waste disposal**

Inside this issue:

Many Hospitals Now Co-Mingle Sharps & Non- Hazardous Pharma- ceutical Waste	2
SQGs Have Phar- maceutical Waste Disposal Options	3
What Pharmaceuti- cals Designate as Hazardous Waste?	3

Hospital Waste

Ecology & EPA Working on New, Simpler Pharmaceutical Waste Regs

Washington's Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) are working on similar but separate efforts to simplify the management of pharmaceutical waste. These two efforts were presented to the public and stakeholders in a meeting recently in Olympia.

Ecology has been directed by the legislature to convene a work group to identify problems in properly managing pharmaceutical waste and recommend solutions to improve management of these wastes at the site of generation through treatment or disposal by commercial waste management facilities. The work group may develop recommendations including, but not limited to, new or revised policies to be issued by the department, recommendations for ensuring consistent interpretation and implementation of existing rules, recommendations for amendments to chapter 70.105 RCW or rules adopted pursuant to chapter 70.105 RCW, and recommendations on how the department will implement consistent regulatory oversight of pharmaceutical waste management facilities that receive waste from sources statewide. The work group must provide recommendations to the appropriate fiscal and policy committees of the legislature by December 31, 2015.

Meanwhile, EPA is proposing a new hazardous waste pharmaceuticals rule to sim-

plify the management of controlled substance and hazardous pharmaceutical waste.

Ecology's work group is still developing proposals to simplify pharmaceutical waste management while gathering stakeholder concerns. The EPA has made some preliminary proposals which may or may not become a rule. These include:

- Small Quantity Generators can send hazardous pharmaceutical waste to a larger facility under the same owner;
- Small amounts of P-listed waste (e.g., epinephrine) will not cause an SQG to become an LQG;
- P-listed bottles of less than 1 liter or less than 1,000 pills are considered empty when contents have been removed by common practice (don't have to be triple-rinsed); and
- Syringe residues are not hazardous waste if placed in sharps waste.

Pharmaceutical waste is a thorny issue that continues to bedevil generators, agencies tasked with protecting the environment, and commercial waste management services. But rules are changing that recognize the unusual nature of pharmaceutical waste and still protect the environment.

Many Hospitals Now Co-Mingle Sharps and Non-Hazardous Pharmaceutical Waste for Incineration



Most hospitals in Washington have, until recently, attempted to comply with pharmaceutical waste regulations by designating just one pharmaceutical waste stream and incinerating it all at a RCRA Part B-permitted facility. This one waste stream included federal hazardous, Washington State Only non-hazardous, and even empty vials and IV bags. The rationale was to avoid any possibility of misrepresentation or failure to achieve 100% compliance.



Designating just one pharmaceutical waste stream resulted in over-classifying about 95% of the pharmaceutical waste generated by most facilities, but it was compliant with Ecology regulations.

Hazardous waste is that which carries a federal D-, U-, P-, F- or K-list waste code. The list of pharmaceuticals which designate as hazardous waste is far smaller than the dangerous waste list identified by Ecology, which includes toxic and persistent wastes. Non-hazardous but dangerous pharmaceutical waste is generally known as Washington State Only (WSO) waste and

may be designated by WT01, WT02, WP01, WP02, WP03 or WSC waste codes.

Hazardous waste generally comprises 5% or less of a facility's pharmaceutical waste, while non-hazardous WSO waste comprises the balance. Hazardous waste must be incinerated at a RCRA facility (unless the facility is a Small Quantity Generator) while non-hazardous pharmaceutical waste can be incinerated at a municipal or medical waste facility.

Stericycle has pioneered a new program that allows generators to co-mingle sharps waste and non-hazardous pharmaceutical waste in re-usable plastic containers. The waste is incinerated—in compliance with Ecology's Interim Enforcement Policy—and the waste containers cleaned and re-used. Hazardous waste, including chemotherapy drug waste, is still collected in containers that must be incinerated at a RCRA facility.

There are two advantages to this program:

1. It is far less costly, of-

ten resulting in a 75% reduction in disposal costs, and

2. It removes a great deal of plastic from the waste stream that must be incinerated.

The program has been enthusiastically embraced by staff at every hospital where it's been introduced, in large part because it simulates a protocol that caregivers practiced for decades: disposal of unwanted pharmaceuticals in sharps waste containers.

The program also results in more appropriate classification of the far more plentiful non-hazardous pharmaceutical waste. Hospitals are no longer sending empty IV bags and antibiotics to a very expensive RCRA incinerator facility.

This program is being rolled out nationally, even in states with no pharmaceutical waste regulations. It appears evident that healthcare wants to manage waste properly, especially when it saves money, protects the environment, and recycles a great deal of what might otherwise be wasted.

Small Quantity Generators Have Pharmaceutical Waste Disposal Options

If your facility designates as a Small Quantity Generator of dangerous waste, you have some less expensive options for the disposal of pharmaceutical waste. These exemptions fall under the Designation of Dangerous Waste for Small Quantity Generators Rule outlined in WAC 173-303-070(8) of the Dangerous Waste Regulations. An SQG is one that generates less than 220 pounds of dangerous waste and less than 2.2 pounds of extremely hazardous waste per month.

SQGs can ship pharmaceutical waste, including federal hazardous waste, by common carrier with a bill of lading. They do not have to ship

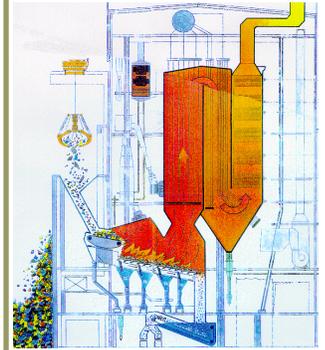
using a Uniform Hazardous Waste Manifest or use a hazardous waste vendor. They can even ship their pharmaceutical waste via a package delivery service.

All pharmaceutical waste—including hazardous waste—from an SQG can be incinerated at a medical or municipal waste incinerator and does not need to go to a RCRA Part B-permitted incinerator. Disposal via a medical or municipal waste incinerator is far less expensive than via a RCRA incinerator.

If your pharmaceutical waste program generates a Pharmaceutical Waste Profile and you send that pro-

file to Ecology (Olympia) and you incinerate all of your pharmaceutical waste, then you are in compliance with Ecology's *Interim Enforcement Policy*. None of your pharmaceutical waste—hazardous or Washington State Only non-hazardous—counts towards your generator status and you do not report this waste on a Dangerous Waste Annual Report to Ecology.

If you are an SQG, explore your options for pharmaceutical waste disposal. A compliant program can be far less onerous and costly than one for Regulated Generators of dangerous waste.



What Pharmaceuticals Designate as Hazardous Waste?

Hazardous waste is a federal term defined in 40 CFR §261. It includes listed, characteristic, universal and mixed waste. These wastes are designated by D-, U-, P-, F- and K-codes. Non-hazardous waste is waste that is "dangerous" by Washington State law.

Some pharmaceuticals, when spent or unwanted, designate as federal hazardous waste. To comply with Ecology's *Interim Enforcement Policy*, these wastes

must be incinerated at a Resource, Conservation & Recovery Act (RCRA) Part B-permitted facility (except for hazardous waste generated by SQGs; see article above). These wastes should be collected separately from non-hazardous pharmaceutical waste to save on disposal costs. If co-mingled with non-hazardous waste, all the waste must be treated as hazardous waste.

Some of these pharmaceuticals are:

D001—Silver nitrate applicators, Erythromycin Gel 2%, Taxol injection, flexible collodion, Amyl nitrate

D004—Carbasone, Glycobarosol, Thiactarsamide

D005—Barium sulfate

D009—Thimerosal

D010—Selenium

D013—Lindane

(Continued on page 4)



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(Continued from page 3)

D024—Insulin w/ cresol
U010—Mitomycin C
U015—Azaserine
U034—Chloral Hydrate
U035—Chlorambucil
U058—Cyclophosphamide
U059—Daunomycin
U075—Dichlorodifluoro-methane
U089—Diethylstilbesterol
U121—Trichloromonofluoro-methane

U132—Hexachlorophene
U150—Melphalan
U182—Paraldehyde
U187—Phenacetin
U188—Phenol
U200—Reserpine
U201—Resorcinol
U205—Selenium sulfide
U206—Streptozotocin
U248—Warfarin (< 0.3%)
P001—Warfarin (> 0.3%)
P012—Arsenic Trioxide
P042—Epinephrine

P046—Phentermine
P075—Nicotine
P188—Physostigmine salicylate
P204—Physostigmine

Presently, if you generate more than 2.2 pounds a month of a P-listed hazardous waste, it will cause your facility to designate as a Regulated Generator, even if the total amount of hazardous waste represents just a Small Quantity Generator. This may change with new rules being considered by the EPA and Ecology.