

HOSPITAL WASTE MANAGEMENT



a P.W. Grosser Consulting, Inc. Company

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### Special points of interest:

- **USP Chapter 800 has been published**
- **Does Your Facility Have a Written Hazard Communication Plan?**

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# Hospital Waste

## USP 800 Published: What it Means for Healthcare Facilities & Workers

The U.S. Pharmacopeia published the long-awaited Chapter 800 February 1, 2016. It applies to and seeks to protect all healthcare staff who handle hazardous drug preparations including pharmacists, pharmacy technicians, nurses, physicians, physician assistants, home healthcare workers, veterinarians and veterinary technicians. The chapter impacts all healthcare entities that store, prepare, transport, or administer hazardous drugs.

The official implementation date of Chapter 800 is July 1, 2018.

Hazardous drugs are defined in USP 800, an enforceable standard, as those identified by the National Institute of Occupational Safety & Health (NIOSH). They include chemotherapy agents, immunosuppressants, and others that display one of the following criteria: carcinogenicity, teratogenicity (an agent that can induce or increase the incidence of a congenital malformation) or development toxicity, reproductive toxicity in humans, organ toxicity at low doses in humans or animals, genotoxicity (an agent that damages genetic information causing mutations) and new drugs that mimic existing hazardous drugs in structure or toxicity.

The greatest impact to healthcare facilities will be in constructing separate storage areas for antineoplastic hazardous drugs that require manipulation (other than counting) that are negative pressure with

12 or more air changes per hour. Some facilities may not have to construct new facilities, but many will. This new standard represents a departure from USP 797. Under USP 800 other hazardous drugs in the NIOSH list may be stored with antineoplastic agents.

Together with Washington's Hazardous Drug Rule, many healthcare workers must undergo regular training to make them aware of the hazards that these agents present.

Chapter 800 recommends polyethylene-coated polypropylene gowns for workers. Gloves should be ASTM tested and approved for chemotherapy handling. They should be powder-free and workers who compound or administer hazardous drugs should double-glove (first pair under the cuff and the second over the cuff), changing every 30 minutes or when contamination is suspected.

Chapter 800 appears to require some workers to wear N-95 or better masks for respiratory protection. It states "Surgical masks do not provide respiratory protection from drug exposure and should not be used to compound or administer drugs." Goggles are required when handling hazardous drugs outside of an engineering control (such as a laminar-flow hood).

## Underground Storage Tank Operators Require Training

If your facility has underground petroleum storage tanks, your operators must be trained. The federal Energy Policy Act includes requirements for states to develop an underground storage tank (UST) operator training program.

Based on their duties personnel will be designated as one or more of three operator classes, A, B and C Operator.

If operators are not certified, the owner/operator may be subject to penalties.

If your UST is found out of compliance all operators must be re-trained and an Operation & Maintenance Plan prepared.

**Class A** operators have primary responsibility for the operation of the UST.

**Class B** operators are responsible for day-to-day operation, maintenance and recordkeeping.

**Class C** operators are onsite daily and often the initial responder to alarms.

You can learn more about this required training at <http://www.ecy.wa.gov/programs/tcp/ust-lust/OperatorTraining/OperatorTraining.html>

## The Joint Commission is Asking About Hazard Communication Plans

The Joint Commission has been asking facilities to show their written Chemical Hazard Communication Programs (CHCP). Can you lay your hands on one?

Many healthcare facilities wrote their original Chemical Hazard Communication Programs before computers were commonplace (1983!) and cannot produce a written plan for reviewers. Both state (WAC 296-800-170) and federal law (29 CFR 1900.1200) require businesses to have a written program.

Original CHCPs must now be amended to incorporate the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Even though your facility has been complying with CHCP requirements, you must still have a written program. Before The Joint Commission shows up at your facility, make sure that you have a written, updated copy to present to the reviewer.

## Wastewater Discharges: Clarifying the Point of Compliance

In past issues of this newsletter we've discussed the issue of wastewater discharges and where you must comply with discharge regulations. Your facility is not allowed to discharge dangerous or hazardous waste to the sewer, but at what point do you measure how dangerous a discharge is and whether it complies?

The Point of Compliance will vary with the waste code of your wastewater stream. To determine which point of compliance applies to your specific waste stream you must designate your waste stream (apply a waste code) and then go through a hierarchy of applicable regulations.

Information about designating your waste streams is available in Washington's Dangerous Waste Regulations, WAC 173-303.

Waste streams that designate with a federal waste code must comply *at the first hard pipe*, which generally means the sink or floor drain. These waste streams carry waste codes of D-, F-, K-, P-, or U-xxx, where the x is a numeral. This is a strict standard and means that you must capture

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or treat your waste stream before it even enters your facility's sewer system.

Waste codes that designate as a Washington dangerous waste must generally comply *where your facility's sewer line connects to the municipal sewer collector*. This is often at the street manhole. These waste streams designate as WT-, WP- or WSC- wastes. This is a much less stringent standard that means your facility's total sewage may dilute your waste stream to the point where it no longer designates as a dangerous waste.

Federal hazardous wastes with D-, F-, K-, P- or U-codes are ignitable, corrosive, listed or toxic. Washington dangerous waste codes with WT-, WP- or WSC- codes are either toxic or persistent in the environment. You can and should designate your hazardous and dangerous waste streams.

Washington's Department of Ecology enforces wastewater discharge treatment for much of Washington State, but does delegate that authority to nine (9) municipal wastewater treatment jurisdictions with the resources to oversee and regulate businesses. These include:

- City of Everett
- City of Olympia
- City of Lynnwood
- Pierce County
- Richland
- King County

- City of Spokane
- City of Tacoma
- City of Vancouver

While Washington's own discharge treatment thresholds are more stringent than federal standards, the point of compliance is farther downstream, which allows greater latitude in assessing your waste stream's hazard. That is, a waste stream that would be dangerous at the first hard pipe may not designate as dangerous at the connection with the city's sewer line.

A local Publicly Owned Treatment Works (POTW) may have additional constraints on wastewater discharges beyond federal and Washington standards. Commonly, these constraints are associated with low summer flow rates of rivers into which the POTW discharges its treated water. POTWs may restrict the Biological Oxygen Demand (BOD) of your facility's discharge because it might result in algae blooms in nearby rivers after sewage treatment. If your local POTW discharges into a body of water such as Puget Sound, there would be no constraints on BOD.

Assessing the waste code of your waste stream and the applicable point of compliance of the discharge takes time and effort, but can save you inspection headaches.

## Not Filing an Annual Tier II Report Could Net You a Visit by the EPA

Hospitals which typically store more than 10,000 lbs of diesel #2 on-site (~1,412 gallons) must file an annual Tier II report with the Washington Dept. of Ecology. Not doing so can trigger an inspection by the U.S. Environmental Protection Agency.

Tier II Reports are required by the Superfund Amendment & Reauthorization Act (SARA) Title III, §312, a part of the Emergency Planning & Community Right-to-Know Act. More information can be found at [www.epa.gov/epcra](http://www.epa.gov/epcra).

The report is due by March 1st of each year, but once filed seldom requires updating unless you add, remove or re-position storage capacity.

EPA practice appears to monitor facilities that should probably file a report and, when no report is filed for two successive years, to send a notice of intent to inspect.

Some hazardous chemicals such as compressed gases are exempt from reporting when used at hospitals, but diesel #2 must be reported.



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a P.W. Grosser Consulting, Inc. Company

17629 NE 138th Street  
Redmond,  
Washington 98052-1226

Phone: 425-883-0405  
Fax: 425-895-0067  
E-mail: ajones@pwgrosser.com

[www.hospitalwastemgmt.com](http://www.hospitalwastemgmt.com)

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## Need Assistance with a Wastewater Discharge Permit Application?

Occasionally the Washington Department of Ecology will ask a facility to apply for a Wastewater Discharge Permit as a condition for closing out an inspection report. Permit applications often involve a basket of complex water balance calculations, a spill control plan, drawings of water, storm-water and wastewater lines and descriptions of the processes at your facility that generate wastewater.

If you have been asked to apply for such a permit and need assistance, P. W. Grosser Consulting can help. We have completed wastewater discharge permit applications for healthcare and other clients and can assist you with assembling the necessary documents, drawings, tables, and



plans to apply for your facility's permit.

Our engineers, CAD operators and chemists have extensive experience in both potable and waste water systems, including permitting and design.

Contact us at the numbers and addresses shown above and get the assistance you need to close out that pesky inspection report!