

HOSPITAL WASTE MANAGEMENT



a P.W. Grosser Consulting, Inc. Company

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### Special points of interest:

- **Ecology likely to accept alternative controlled substance waste disposal technologies**
- **Coping with Reviewers requesting Eye-wash stations**

### Inside this issue:

Noise: Stress & Disruption in the Workplace	2
Hazardous Drug Control Plan: Is Yours Compliant?	3
EyeWash Stations: Complying with Agency Reviewer Requests	3
Code Orange FR/AL Training Module for Healthcare	4

# Hospital Waste

## Controlled Substance Waste: Big Changes Coming to Healthcare

With the publication of the U. S. Environmental Protection Agency's (EPA) proposed Pharmaceutical Waste Rule [see Hospital Waste vol 17, num 4, Winter 2015], the disposal of unwanted controlled substances in U.S. healthcare facilities will undergo profound changes. Caregivers have habitually wasted these materials down the drain, which will no longer be acceptable to the EPA, the U. S. Drug Enforcement Agency (DEA) or the Washington Department of Ecology. The new rule is expected to be implemented in the winter of 2017—2018.

What will almost certainly take the place of sewerage controlled substance waste will be the adoption of onsite devices and chemistries to capture and render these materials unrecoverable.

Sewering was once the only reasonable manner of disposal that the DEA would accept to prevent abuse and diversion of unwanted controlled substances. In a historic agreement, however, the DEA has agreed to cooperate with the EPA in banning the drain disposal of unwanted controlled substances.

There are several commercial devices currently on the market that would appear to be reasonable measures to comply with EPA's proposed Hazardous Pharmaceutical Waste Management rule, including the Cactus Smart Sink®, RxDestroyer™ and Stericycle's CsRx. These devices accept

either tablets or liquid, mixing the controlled substance with a proprietary substance which renders the drug unrecoverable. The canisters themselves can be incinerated or sent to a secure landfill when full.

Washington Ecology has effectively constrained the adoption of this technology by declaring that it represents Treatment by Generator and is not compliant with its Interim Enforcement Policy on Pharmaceutical Waste Management in Healthcare (IEP). As nearly all healthcare facilities in Washington have adopted the IEP as their management method for pharmaceutical waste, Ecology's ruling has prevented most facilities from adopting any of these new alternative technologies. For the time being, most Washington caregivers continue to sewer controlled substance waste or send it offsite via a reverse distributor vendor with DEA Form-222.

It is likely that Ecology will change its approach, based upon the national adoption of EPA's rule. There are no other reasonable alternatives and Ecology staff recognize the dilemma that they've created in Washington healthcare. If Ecology changes its ruling, alternative technologies such as the Cactus Smart Sink®, RxDestroyer™ and CsRx will become a staple in Washington healthcare facilities.

## Noise: Stress & Disruption in the Workplace

Noise, or unwanted sound, is one of those irritants that most of us simply endure. Yet it is one of the most common workplace hazards and can put additional stress on workers, resulting in lower productivity and unhappiness.

In our healthcare environment noise can dramatically impact our patients' welfare as they recover from illness or surgery. Sleep can be difficult with alarms and unnecessarily loud, late-night conversation.

When did you last conduct a noise assessment of your facility? Do you know where noise results in unnecessary stress, hinders patient care or causes disruption of the workplace environment?

Noise can be measured in decibels:

Source	Decibels (dBA)
Whispering	34
Conversation	60
Vacuum cleaner	69
Heavy traffic	90
Jet aircraft (overhead)	115
Human pain threshold	120

Or in Power (watts):

Source	Power (Watts)
Conversation	10 <sup>-5</sup>
Turbojet Engine	10,000

Or in frequency or pressure.

Noise can be continuous, intermittent, or variable. Sensitivity to noise can depend upon the frequency; some people hear a greater range of frequencies than others. If a person hears two sounds with the same pressure but different frequency, they may perceive one as being louder than the other. OSHA has recognized this human tendency and more heavily weights higher frequencies. One of the most irritating noise frequencies, for example, is that of gasoline-powered leaf blowers.

Washington Labor & Industries has a hearing loss prevention regulation [WAC 296-817] that requires hearing protection when sound levels exceed 85 dBA TWA<sub>8</sub>, but also a general rule that employers must provide a safe workplace free from recognized hazards [WAC 296-800-110]. Joint Commission's Guiding Principle for the Development of the Hospital of the Future states "reduced noise levels can help avoid distractions that often lead to caregiver errors in the medication process" and additionally states "Other physical stressors include noise, that when reduced, as previously mentioned, results in less fatigue and reduced risk of error."

Very loud, continuous noise can result in tinnitus, a ringing in the ears.

Have your employees or patients complained about noise? Do you find it difficult to carry on a conversation in some areas of your facility? Does your facility remind staff and visitors that healing requires peace and quiet?

To improve a situation you must be able to measure it. A noise audit of your facility, including interviews, can pinpoint areas, equipment, or issues that you can and should address to improve the workplace environment and patient care. Sound level meters are weighted for human sensitivities and can accurately measure noise levels in the workplace.

PPE is not a practical means of controlling noise in patient care or office areas. Engineering (sound-absorbing materials) and administrative controls (training and education) can, however, effectively reduce noise levels.

Reading comprehension and memory are two tasks in particular that suffer when noise is apparent. It is difficult to concentrate when sound stimuli intrude, causing errors and mistakes in performance.

If you're interested in a noise audit for your facility, contact P. W. Grosser Consulting. We can help.



## Hazardous Drug Control Plan—Is Yours Compliant?

Your facility probably has a Hazardous Drug Control Plan (HDCP) in place, but is it compliant? Washington's Hazardous Drug Rule, WAC 296-62-500, has some requirements that not all facility HDCPs incorporate. For example, does your written HDCP have:

- Drawings or descriptions of work areas where hazardous drugs are received, compounded, administered or their waste stored?
- Job hazard assessments for staff in receiving, pharmacy, infusion, and waste disposal?
- A decision tree or algorithm that staff can use to determine appropriate PPE based upon the drug, its formulation, the task involving the drug, and the risk of exposure?

Washington Labor & Industries has indicated that inspectors will not rush to cite facilities, but rather work with facilities to 1) conduct thorough assessments of the risk of exposure to hazardous drugs and 2) to develop tools for staff to use to evaluate risk and select PPE to protect themselves from exposure to hazardous drugs.

The assessment of risk of exposure to hazardous drugs for each job task should be patient and thorough. Inspectors will work with facilities who have shown serious attention to these risks, but if your HDCP contains only boilerplate language and the NIOSH list of hazardous drugs, expect that your treatment by L&I inspectors may not be so gentle.

### EyeWash Stations: Complying with Agency Reviewer Requests

Eye wash stations are accepted by Joint Commission and Washington Labor & Industries reviewers as necessary when corrosive, strongly irritating or toxic materials are used by employees and there is a splash hazard. Increasingly, reviewers are asking facilities to consider installing eyewash stations in more areas, including environmental services closets.

Neither OSHA nor L&I clarify minimum requirements for "suitable facilities," so employers should consult the American National Standards Institute (ANSI) Z358.1-2009 Standard for Emergency Eyewashes and Shower Equipment for guidance:

- The valve should activate in a second or less and remain on until intentionally turned off.

• Eyewash equipment should maintain a minimum flushing fluid of 3 gpm at 30 PSI for 15 min.

• Plumbed units should be activated weekly.

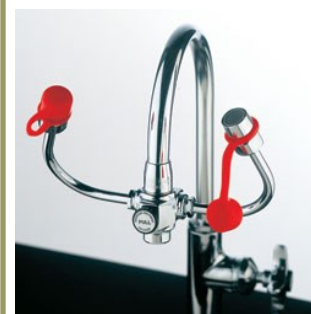
• The flushing fluid should be tepid (between 60° and 100° F).

• Equipment should be installed within 10 secs of the hazard and on the same plane (floor). The pathway should be clear of obstructions.

Squeeze bottles are not an acceptable alternative to emergency eyewash stations.

Googles, used during a task involving corrosive, strongly irritating or toxic chemicals, and employee training may be an acceptable alternative to emergency eyewash stations.

Some newer, commercially available, closed cleaning chemical dispensing systems also virtually eliminate splash hazards. The use of a Hazard Vulnerability Analysis (HVA) may convince a reviewer that a splash hazard does not exist.



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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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## Code Orange FR/AL Training Module for Healthcare Facilities

**H**ospitals fall under the Washington Dept. of Labor & Industries' Emergency Response Standard (WAC 296-824) when hazardous material (hazmat) spills occur in the facility. This standard requires a written response plan, a protocol for how to respond, and provides for different levels of training to respond to hazardous material spills.

At it's most basic, all employees in

a business that uses hazardous materials must be trained to the First Responder / Awareness Level (FR/AL). All employees must be able to recognize a hazmat spill, recognize the hazards a spill can pose, and know to secure the area and call for a trained team of responders. In healthcare we refer to this training as Code Orange.

FR/AL-trained staff may not clean up a hazmat spill—that requires training to the First Responder / Operations

Level (FR/OL). P. W. Grosser Consulting (PWGC) has a PowerPoint-based FR/AL training module for healthcare facilities to comply with Washington's Emergency Response Standard at the FR/AL.

PWGC also provides 8-hr basic Code Orange FR/OL training to in-house hazmat cleanup teams, as well as 2-hr annual refresher FR/OL training. Contact us if you're looking for Code Orange training!