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BEST MANAGEMENT PRACTICES FOR HOSPITALS AND LABS

Best management practices can be thought of as using “good housekeeping” practices. Listed below are several procedures to operate your facility and minimize the risk of contamination to the environment.

1. Spent solvents (i.e. xylene, formaldehydes, glutaraldehydes etc.) and other spent lab chemicals are hazardous waste and must be properly disposed of by a permitted hazardous waste transporter, or recycled by a permitted recycler; or solvents can be distilled and recycled using a solvent recovery unit at your facility.
 - a. If the waste solvent is recycled by the facility generating the waste, the solvent stillbottoms must be collected and handled as hazardous waste, unless proven otherwise.
 - b. If the waste solvent is recycled by a permitted solvent recycler, receipts must be obtained from the recycler and maintained at your facility.
 - c. Neutralizing agents (i.e. Formalex, Aldex, etc.) must be allowed enough time to complete the neutralization reaction. Additionally, these neutralizing agents should not be used to neutralize technical grade solutions. All neutralization products discharged into the sanitary sewers must meet sewer discharge standards. These products must not be discarded into the trash nor incinerated without first obtaining the proper approval from the corresponding DERM section.
 - d. The containers must be compatible with the hazardous waste stored in them and must meet DOT standards. Each container is to be marked with the date that the storage began and marked with the words “Hazardous Waste”.
- e. In all cases when a RCRA hazardous waste is produced, a permitted hazardous waste transporter must be used to transport the waste to a federally approved hazardous waste treatment or disposal facility. Hazardous waste manifests must be kept at your facility, available for review. The facility generating the hazardous waste is required to obtain an Environmental Protection Agency identification number unless classified as a conditionally exempt generator, by contacting:

Notification Coordinator
Bureau of Waste Planning and Regulation
Florida Dept. of Environmental Regulation
Twin Towers Office Building Room 421
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(904) 488-4805

A list of DERM permitted waste haulers is available upon request.

1. Chemical storage areas must be on an impervious surface with a berm and be under cover.
2. In large storage areas, there must be aisle space between storage products. This will enable inspection of the containers for leaks and/or corrosion.
3. Solvents and/or other industrial fluids must not be discharged into septic tanks, storm drains, soakage pits or onto the ground surface. These fluids must be collected and disposed of properly. All industrial fluids discharged into sanitary sewers must meet sanitary sewer standards.
4. Most hospitals have large tanks known as neutralization tanks which connect to the sanitary sewer. These tanks offer pH treatment for the effluent before they discharge to the sanitary sewer. These discharges from the tanks should be sampled twice a year to insure compliance with sanitary sewer standards.
5. All biohazardous waste (BHW) must be "Red-bagged" and properly disposed of per health department standards (10D-104) biohazardous waste may not be mixed with the regular trash. If BHW is not treated on-site, a DERM permitted transporter must be used.
6. Facilities must not discharge any waste x-ray solutions to septic tanks, storm drains or to the ground. If the facility is served by sanitary sewers, the wastewater may be treated by an approved treatment system and the effluent may be discharged if it meets applicable sewer standards. These solutions may also be picked up by a DERM approved transporter.
7. For facilities which also do photochemical processing:
 - a. Waste film processing solutions may be disposed of to sanitary sewer after silver recovery has taken place. If not served by sanitary sewers, film processing solutions must be collected and disposed of via approved hauler.
 - b. Slide processing using ferricyanide bleach requires pretreatment of the slide processing wastewater. This wastewater may not be discharged to sanitary sewer without pretreatment.
 - c. Silver recovery units can be an option. These units will remove silver from waste processing solutions. Silver is classified as a toxic metal by EPA and as such must not be discharged to sanitary sewer in excess of sewer standards (0.4 mg/L).
8. Antineoplastic materials (drugs, contaminated solutions, etc.) must not be disposed in drains, toilets, or as regular trash waste. Contaminated

materials must be placed in a leak-proof, puncture proof special antineoplastic container that is designated for antineoplastic materials.

9. For those facilities handling research animals and performing pesticidal shampooing and/or dipping:
 - a. Spent pesticidal dip solutions and medicated shampoo rinse waters must not be discharged to septic tank. Facilities on sanitary sewer may dispose of pyrethrin and limonene type shampoo and dip solution rinsewater directly to the sanitary sewer system if the wastewater meets sanitary sewer discharge standards. Other insecticide compounds used, such as organophosphates and carbamates, may be discharged to sanitary sewer if the rinsewater meets the sanitary sewer standard for Total Hazardous Organic Materials (THOM's) of 2.0 mg/l (ppm).
10. For hospitals approved (Air Permit required) to incinerate their biohazardous waste on-site.
 - a. Ash waste may be a RCRA hazardous waste as defined by 40 CFR Part 261, and must be characterized as required under General Waste Analysis, 40 CFR Part 264.13.
 - b. If this waste is a RCRA hazardous waste, it must be disposed of by a hazardous waste transporter.
 - c. Mercury containing products (i.e. batteries, sphygmomanometers, thermometers, etc.) must not be incinerated.
 - d. Incinerator waste water (from scrubber or ash quenching pit) discharged into the sanitary sewers must meet sewer discharge standards.
11. Discarded batteries (i.e. from monitors, pagers, emergency lighting) must be collected and handled by a permitted hauler or recycler. These batteries can not be disposed of in the trash as solid waste.
12. The amount of alcohols and staining solutions (i.e. hemotoxin, eosin, OG-6, etc.) being discharged into the sanitary sewer system must be closely monitored and minimized.
13. Grease traps from kitchen/cafeteria must be inspected regularly and pumped out as needed.
14. Facilities generating more than ten (10) spent fluorescent and/or high-intensity discharge lamps per month must have them recycled. These lamps cannot be disposed off in the regular trash. Spent lamps must be stored in a safe location in order to prevent them from breaking.

Questions will be answered by the Industrial Facilities Section staff at (305)372-6600

Any question concerning pollution prevention please call the Pollution Prevention Program at (305)372-6784.

All hospital and laboratories are required to obtain an Annual Pollution Control Operating Permit.

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