



Medical Incinerator Ash Sampling

FACT SHEET 37-037-1010

This fact sheet is based on Federal criteria. State criteria may be more stringent.

1. **BACKGROUND:** Medical incinerator ash should not normally be considered a hazardous waste. However, occasionally, it is a hazardous waste due to heavy metals contamination. Lead and cadmium are two common contaminants.

2. Incinerator ash should be tested at least once quarterly for the first year of operation to establish a baseline. If none of the quarterly tests fail, testing should be done once a year after that. The test used to determine if incinerator ash is a hazardous waste is the Environmental Protection Agency (EPA) Toxic Characteristic Leaching Procedure (TCLP) test.

3. The ash should be analyzed for the eight metals regulated by the Resource Conservation and Recovery Act (RCRA). These metals are: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

4. Sample analysis should be done by an accredited laboratory. If one is not readily available, coordinate with the installation Environmental Office. If they are unable to help, contact the U.S. Army Public Health Command (Provisional) (see paragraph 7) for assistance.

5. If the analytical results exceed the regulatory limits set forth in RCRA (40 CFR 261.24), collect the ash and dispose of it as hazardous waste. To pinpoint the source of contamination, look at what is going into the waste stream and target some probable sources. One source of cadmium is from the pigment used to color some red regulated medical waste bags and sharps containers. Contact this Center for more information on low metal 3 mil red bags. A possible source of lead contamination could be lead bitewings from dentistry. Once the waste stream has been changed, test the ash again. Hopefully the problem will be

solved. If not, keep disposing of the ash as hazardous waste and keep looking for the source of contamination. If the results from the later test are below the regulatory limit, then the ash would not need to be subsequently managed as a hazardous waste. The recommended sampling frequency should be maintained after that.

6. Samples should be collected in clean, wide mouth glass jars with Teflon lid liners. The jars should be big enough to hold at least a 100 g sample. When collecting a sample, try to include as much combusted material as possible. Keep the non-combustible parts such as needles and glass to a minimum. Once the sample has been taken, place it inside a ziplock bag and then tightly pack (to prevent breakage) inside a DOT approved shipping container (a box).

7. Contact the following offices for sample coordination:

PHCR-North (Fort Meade, MD) DSN 622-3468 or commercial (301) 677-3468 if your activity is in CT, DE, IN, KY, MA, ME, MD, MI, NH, NJ, NY, NC, OH, PA, RI, VT, VA, or WV.

PHCR-South (Fort Sam Houston, TX) DSN 471-5154 or commercial (210) 221-5154 if your activity is in AL, AR, FL, GA, LA, MS, OK, Panama, PR, SC, TN, or TX.

PHCR-West (Joint Base Lewis-McChord, WA) DSN 347-0069 or commercial (253) 966-0069 if your activity is in AK, AZ, CA, CO, ID, IL, IA, KS, MN, MO, MT, NE, NV, NM, ND, OR, SD, UT, WA, WI, or WY.

PHCR-Europe (Landstuhl, Germany) DSN 486-8542 if your activity is in Europe, Asia Minor, or Southwest Asia.

PHCR-Pacific (Camp Zama, Japan) DSN 263-8551 if your activity is in Hawaii, Japan, or Korea.

*U.S. Army Public Health Command (Provisional)
Hazardous and Medical Waste
Aberdeen Proving Ground, MD 21010-5403
Commercial (410) 436-3651/DSN 584-3651*