

## WP1

### WASTE MANAGEMENT PROCEDURE

#### 1.0 PURPOSE

To provide a process to meet the requirements of DOE Order 435.1 for the identification and management of wastes generated through analytical processes in preparation for disposal by the Environmental Safety and Health (ESH) office.

#### 2.0 RESPONSIBILITIES

##### 2.1 Laboratory Manager or designee

- 2.1.1 Evaluate analytical procedures and identify waste streams for disposal according to guidance provided by the ESH office.
- 2.1.2 Establish waste generation records for each waste stream.
- 2.1.3 Ensure laboratory staff receive training in this waste management procedure.
- 2.1.4 Monitor waste generation activities to ensure that the waste management procedure is followed.
- 2.1.5 Review and approve waste generation paperwork prior to transfer to the ESH office.

##### 2.2 Laboratory Personnel

- 2.2.1 Follow waste disposal steps identified in each analytical procedure.
- 2.2.2 Follow waste management procedure.
- 2.2.3 Maintain records of radioactive materials added to the waste streams.
- 2.2.4 Send the waste generation paperwork to the Laboratory Manager for approval.

##### 2.3 ESH

- 2.3.1 Provide interpretation of applicable regulatory documents to provide guidance for the identification of waste streams.
- 2.3.2 Assume responsibility for the disposal of the waste stream(s) upon receipt of the proper records from the laboratory.

### 3.0 WASTE STREAMS

The following waste streams have been identified in laboratory analytical processes:

- 3.1 Dry Active Waste - Profile Number L-010 per Master Profiles List of DOE 435.1. Examples of dry active waste include planchettes used for gross alpha/beta, total radiostrontium, discs used for source preparation for alpha spectrometry, and other types of solid materials, not including soils.
- 3.2 Soils - Profile Number L-040 per Master Profiles List of DOE 435.1.
- 3.3 Organic Liquids - Profile Number L-070 per Master Profiles List of DOE 435.1. For example, certain types of scintillation cocktails are considered organic liquids.

### 4.0 WASTE MANAGEMENT

- 4.1 Waste generated during or after an analytical process is placed in the designated container for the appropriate waste stream. Dry active waste is stored in 5 gallon drums. Once these 5 gallon drums are full, they are placed in a 55 gallon storage drum designated for dry active waste. Soil waste is stored in designated 55 gallon drums and organic liquid waste is stored in designated glass containers. All designated containers are to be properly identified and labeled. Laboratory waste must be stored in designated locations in the lab.
- 4.2 If the isotope(s) and concentration(s) of the generated waste are known, they will be recorded into a waste generation logbook (bound or electronic) for each waste stream.
- 4.3 If the isotope(s) and concentration(s) are not known, a representative aliquot from a full waste container will be analyzed using standard laboratory procedures, which apply to the suspected contaminants, to determine the activity in the waste stream. In the case of organic liquids, the presence or absence of radioactivity will determine the final waste stream that is to be used for disposal. If no radioactivity is detected, the organic waste stream will be used. If radioactivity is detected, the mixed waste stream will be used.
- 4.4 When a container for a given waste stream becomes full, laboratory personnel will contact ESH's Waste Certification Officer. This will serve as notification that the waste container is ready for disposal.

### 5.0 RECORDS

- 5.1 Records for the contents of waste containers must be maintained in an active file for one year. The active file may be electronic or bound.
- 5.2 After one year, this information will be archived.

6.0 REVISION HISTORY

<b>Revision Number</b>	<b>Date</b>	<b>Description of Change</b>
0	Various	<a href="#">Past Revisions</a>
1	4/25/12	<ol style="list-style-type: none"><li>1. Added Revision History Table.</li><li>2. Listed examples for various waste streams.</li><li>3. Removed certification record.</li><li>4. Removed “ESSAP” and “RSAT” terminology.</li><li>5. Edited footer to include “ORAU” and date.</li><li>6. Removed attachments—Low-level waste form, Radioisotope Continuation Sheet, and Waste Item Description form.</li></ol>