

## SMITHSONIAN INSTITUTION HAZARDOUS WASTE MANAGEMENT PLAN GUIDANCE

The document that follows provides a “boiler-plate” approach to establishing a written Hazardous Waste Management Plan (HWMP) for Smithsonian Institution facilities. Completing the steps in this guidance assists the Hazardous Waste Coordinator (HWC), along with input from Supervisors, in organizing waste management activities, creating a structured plan for facility personnel to follow, and producing documentation for regulatory compliance purposes. It is not feasible to create a one-size-fits-all guidance document because SI facilities are engaged in diverse activities and subject to different regulatory requirements based on the jurisdiction in which they are located. Facility-specific HWMPs can therefore deviate from this boiler-plate, but all must follow EMS protocols outlined in [Chapter 28 “Environmental Management Systems”](#), of this *Manual* and adopt policies that include pollution prevention, regulatory compliance, and continual improvement strategies.

The regulatory compliance references used in this guidance are the federal Resource Conservation and Recovery Act (RCRA) regulations in effect at the time this document was created. The procedural approach in compiling this guidance was to utilize protocols deemed as best management practices for achieving compliance with RCRA regulations at a minimum. The HWC is responsible for becoming knowledgeable of current applicable state and local HW management regulations that may be broader in scope or more stringent than the federal regulations.

The steps in this guidance can be summarized as identifying every area in the facility that generates a hazardous waste, creating a paper trail of what is done with that waste, and making sure someone is assigned responsibility for handling that waste; Identify, Document, and Delegate!

### **Identifying Activities that Produce Wastes** (EMS Aspect)

1. The first step in developing a HWMP is to identify *every* area in the facility where activities occur that produce a waste.
  - b) Supervisors are asked to assist in this step by completing the “*Location of Waste Activities/Materials*” form HWMP-1, provided in [Attachment 5](#), and returning the form to the HWC. Supervisors will use this form to identify **all** areas under their supervision where there is any activity that produces a waste. This may include, but not be limited to:
    - i) Activities that:
      - use a product requiring a Material Safety Data Sheet (MSDS). Consider both *Manual* and automated processes.
      - use oils of any type (e.g., petroleum, animal, or vegetable);
      - use batteries (e.g., lead acid, NiCad, Lithium);
      - use mercury-containing (e.g., fluorescent) or high intensity discharge (HID) lamps;

ii) Areas:

- that are used for holding or storing waste materials,
  - where automated equipment discharges spent chemicals into containers or drains.
- b) Supervisors are cautioned not to eliminate areas because of small quantities of waste materials, infrequent activities, or periodic maintenance that creates a regulated waste. Also, identify materials that may not be subject to RCRA regulation but still pose a threat if mishandled or improperly disposed, and items that are prohibited from disposal in the municipal landfill (regular trash).
- c) Upon receipt of the completed HWMP-1 forms from the Supervisors, the HWC reviews the information to determine the RCRA regulatory status of the waste activities and materials that have been identified by the Supervisors. Items identified as requiring management utilizing RCRA procedures will be documented and tracked using this formal process. Also, materials determined to pose a threat to human health or the environment may be managed as non-hazardous wastes using the RCRA management system and should be evaluated for inclusion in this process. OSHM can assist the HWC with this evaluation.
- d) The HWC must separate the activities, materials, and/or areas that are determined to require management under RCRA from the lists submitted by the Supervisors and create a final list of the waste activities and/or materials that will be regulated under the HWMP. A copy of the final list is also to be distributed to all Supervisors. This final separated list becomes the facility's official record for compliance tracking purposes.

### **Documenting Facility Activities**

The next step in creating the HWMP is to establish and organize a paperwork trail (documentation). The HWC is the main point of contact for **all** records associated with hazardous waste management at the facility. This means the HWC is also responsible for knowing the location of any record relating to the management of hazardous waste even if that record is not in their possession or under their direct control. The following discussion pertains to records associated with waste identification and initial collection efforts, a more detailed discussion of records is found in Section 14 of the HWMP instructions.

The HWC is to assemble and organize information and records for the activities and/or materials that have been identified in step one above. In addition to the HWMP-1 form created above, the following are other documents that the HWC should seek out when assembling records:

- The most current "RCRA Subtitle C Site Identification Form"
- Uniform HW Manifests and Manifest Exception Reports for the past three (3) years.
- Biennial HW Activity Reports, or annual HW compliance certifications if required by the state regulations
- Documentation of recycling for oil, lamps (light bulbs), batteries, electronics, scrap metal, etc. Records associated with any materials that are transported

off site for recycling or disposal. This can be bills of lading, contracts for routine pick-ups, or receipts. *Any material that leaves the facility should have a record documenting where it goes.*

- The *current* facility Hazardous Chemicals Emergency Spill and Leak Procedures document.
- Permits for any system designed to treat water, or air, for the purpose of removing harmful substances or pollutants. If no permits exist, there is still a requirement to be able to demonstrate the RCRA regulatory status of effluent, filters, or media prior to disposal. Inspection, testing, and maintenance records may be helpful for the purpose of demonstrating compliance. Examples are acid traps on sink drains and filters from spray paint booths or other systems designed to remove contaminants.

The collected records can assist in providing a historical perspective of items that have been regulated in the past; they may also help in identifying areas that were overlooked during the current survey.

When reviewing the assembled paperwork for each waste activity and/or material (EMS Aspect), ask:

- *Do I know the final fate of every regulated material used at the facility?*
- *Can I produce/provide a document that proves what happened to the material?*

Each RCRA regulated hazardous waste identified on form HWMP-1 is *required* to be represented by a corresponding waste code on the RCRA Subtitle C Site identification form and appear on a previous or recent hazardous waste manifest showing it was shipped offsite. Universal wastes and used oils are also *required* to have a physical record showing when, where, and by whom they were shipped offsite.

## **Delegation**

The third step is delegation. The HWC coordinates with Supervisors to ensure that all waste activities and/or materials (EMS Aspects) identified by the HWC as requiring regulation, are handled properly while in the Supervisor's area of authority. On-going compliance monitoring does not become an additional job if it is assigned to the person who is routinely involved in the activity that produces the regulated material. Delegating responsibility reinforces the concept that environmentally responsible material handling is a critical part of everyone's job (EMS Policy). It takes little effort for the person that routinely handles a container to ensure that the container has a label, is dated, and is kept in the proper place. Three forms have been developed to assist facility staff and further facilitate this process:

1. Regulated Waste ID Log form, HWMP-2, [Attachment 7](#) (see instructions). Supervisors and the HWC work together to complete this form. The HWC uses information provided on the HWMP-1 to identify wastes that are going to be regulated by the HWMP protocols and placed in the "Process" column on form HWMP-2. Supervisors are to complete the remaining columns on form HWMP-2 and provide a copy to the HWC. The "90-day Amount" column is to be used to coordinate a schedule with the HWC that ensures that waste is removed from the generation point in order to meet the facility's disposal time restrictions. The HWMP-2 form shall be updated whenever there is a change in processes or activities in

areas under the authority of the Supervisor. Copies of the form are to be maintained by both the HWC and Supervisors and be readily available for compliance inspection purposes.

2. Satellite Accumulation Area Inspection form, HWMP-3, [Attachment 9](#). Supervisors are to provide this form to an individual who is to be held accountable for waste accumulation containers or areas. This individual may be the same Contact Person identified on the HWMP-2 form but it is not mandatory. A separate form should be completed for each waste accumulation container and/or area. The Supervisor will have to decide how often to use this form, but the recommended best management practice (BMP) is once per month, at a minimum.
3. Central Accumulation Area Inspection form, either [Attachment 10](#) or [Attachment 13](#), as appropriate. A central accumulation area (CAA) is any space that holds waste that was generated in another area. In many facilities, there will be only one CAA that is under the control of the HWC. Other facilities will have areas that are used by several different individuals generating waste; any area that collects waste from a location other than where the waste was produced is a CAA. Weekly inspections are *required* for CAA! It is usually convenient to have a notebook or folder at the CAA location to record the inspections. Supervisors who have CAA in their areas of authority must provide copies of the inspection checklist to the HWC. Coordinate with the HWC to establish a schedule for providing copies; the BMP for Supervisors to give copies to the HWC is every 12 months (yearly).

HWCs are to perform weekly inspections of CAAs for which they have responsibility. The HWC is to use a comprehensive checklist such as the HWMP-4 form, Attachment 10. HWCs are required to maintain copies of the inspection checklists for a minimum of three (3) years.

## **MEETING OBJECTIVES**

The term “objective”, as used in the EMS, refers to a process of bringing an activity and/or material (Aspect) under control by developing and implementing operational procedures. This guidance document provides an example of putting the EMS concept of an objective into effect. The information presented up to this point served to establish the foundation upon which the HWC will now build a HWMP document. The way in which the remaining information is presented not only serves to create a physical record of a management plan, but it is also an instructional tool in that it identifies the basic components of a hazardous waste compliance strategy. Both Supervisors and employees are encouraged to read through the HWMP to get an understanding of the SI expectations of the facility for the handling of hazardous waste.

You may direct any questions or comments about this document to:

Smithsonian Institution  
Office of Safety, Health & Environmental Management  
600 Maryland Avenue SW Suite 7106  
MRC 514, P.O. Box 3702  
Washington, DC 20013-7012  
(202) 633-2530