

NIH POLICY MANUAL

3032 – WASTE MINIMIZATION AND MANAGEMENT AT THE NIH

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1. **Explanation of Material Transmitted:** This chapter is being revised to reflect changes in laws, regulations and executive orders that have occurred since the previous issuance. Revisions also provide updated information for waste management procedures.

2. **Filing Instructions:**

Remove: Manual Issuance 3032, dated 04/26/2006

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A. Purpose:

This chapter establishes the policy for management of all types of wastes generated at the National Institutes of Health (NIH)'s owned and leased facilities, including general solid, medical pathological, radioactive, chemical, mixed and multihazardous wastes, and sanitary sewer wastewater. Management of asbestos containing materials is also addressed in this policy.

B. Policy:

This policy requires, where feasible, the elimination or reduction of the amounts and toxicity of wastes at their source, and proper management of all unavoidable wastes, including their characterization, collection, labeling, packaging, storage, recycling, transportation, treatment and final disposal. The policy applies to all NIH personnel, contractors and/or anyone involved with the generation of wastes or waste management and support services at all NIH facilities, including but not limited to the Bethesda main campus, local off-campus facilities (Rockville, Poolesville, Frederick, and Baltimore), and regional facilities (North Carolina, Montana, and Arizona).

1. The NIH shall follow the national policy declared by the Congress of the United States in the [Pollution Prevention Act of 1990](#) (42 USC 133) by ensuring that all wastes and pollutants from all of its mission activities are managed in accordance with the hierarchy of methods listed in the Act (42 USC 13101(b)):
 - a. Whenever feasible, pollutants and wastes should be prevented or reduced in their amount and toxicity at the source;
 - b. Pollutants and wastes that cannot be prevented should be beneficially reused or recycled in an environmentally safe manner; and
 - c. Disposal of chemical wastes, including pharmaceutical wastes, via the sanitary sewer is not permitted unless authorized by the NIH Division of Environmental Protection; please refer to the [NIH Waste Disposal Guide](#).
2. The NIH shall follow all applicable federal, state and local laws and regulations, permits and licenses, and executive orders pertaining to waste management, including but not limited to the following:
 - a. [Atomic Energy Act of 1954](#) (42 USC 1211 et seq.);

- b. [Clean Water Act of 1972](#) (33 USC 1251 et seq.);
 - c. [Comprehensive Environmental Response Compensation and Liability Act of 1980](#) (42 USC 9601 et seq.);
 - d. [Executive Order 13423 "Strengthening Federal Environmental, Energy, and Transportation Management;"](#)
 - e. [Executive Order 13514 "Federal Leadership in Environmental, Energy, and Economic Performance;"](#)
 - f. [Hazardous Materials Transportation Act of 1975](#) (49 USC 5100 et seq.);
 - g. [Resource Conservation and Recovery Act \(RCRA\), 1976](#) (42 USC 6901 et seq.); and
 - h. [Toxic Substances Control Act of 1976](#) (15 USC 2601 et seq.).
3. The NIH waste management activities shall be in conformance with the following policies and any amendments to them:
- a. [HHS Strategic Sustainability Performance Plan](#),
 - b. [NIH Environmental Management System \(NEMS\)](#); and
 - c. [NIH Environmental Policy](#).

C. References:

1. Atomic Energy Act of 1954
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0980/v1/sr0980v1.pdf#page=13>
2. Clean Water Act of 1972
<http://www.epa.gov/lawsregs/laws/cwa.html>
3. Comprehensive Environmental Response Compensation and Liability Act of 1980
<http://www.epa.gov/lawsregs/laws/cercla.html>
4. NIH Construction Debris Waste Management and Recycling Plan
<http://orf.od.nih.gov/Environmental+Protection/Waste+Disposal/TheConstructionDebrisWasteManagementandRecyclingPlan.htm>
5. Executive Order 13423 "Strengthening Federal Environmental, Energy, and Transportation Management".
<http://www.fedcenter.gov/programs/eo13423/>
6. Executive Order 13514 "Federal Leadership in Environmental, Energy, and Economic Performance"
<http://www.fedcenter.gov/programs/eo13514/>
7. Hazardous Materials Transportation Act of 1975
<http://www.epa.gov/osweroe1/content/lawsregs/hmtaover.htm>
8. HHS Strategic Sustainability Performance Plan
<http://www.hhs.gov/about/sustainability/2011plan.html>
9. NIH Environmental Management System
<http://nems.nih.gov/>
10. NIH Environmental Policy
<http://nems.nih.gov/about/Pages/policy.aspx>
11. NIH Manual Chapter 1743 – Keeping and Destroying Records, Appendix 1
<http://oma.od.nih.gov/manualchapters/management/1743/>

12. NIH Waste Disposal Guide
<http://orf.od.nih.gov/NR/rdonlyres/E8E3D36B-06D8-4193-A1B5-2FA527EB177D/20647/Waste20Calendar2004270920508.pdf>
13. Pollution Prevention Act of 1990
<http://www.epa.gov/p2/pubs/p2policy/act1990.htm>
14. Resource Conservation and Recovery Act (RCRA),1976
<http://www.epa.gov/lawsregs/laws/rcra.html>
15. Toxic Substances Control Act of 1976
<http://www.epa.gov/lawsregs/laws/tsca.html>

D. Definitions:

1. **Asbestos Containing Materials (ACM)** - discarded materials containing friable or non-friable asbestos fibers.
2. **Chemical Waste** – wastes regulated by the U.S. Environmental Protection Agency or individual states as hazardous waste; and other discarded materials that contain or are contaminated with hazardous chemicals at a concentration which is potentially hazardous to human health or safety.
3. **Construction Debris** - debris containing bulky heavy materials such as drywall, concrete, wood and glass generated from new construction, renovation or demolition activities at NIH.
4. **Designated Facility Point of Contact (POC)** - As a condition of receiving waste services in the Greater Baltimore Washington Area, all local NIH facilities not located on the Bethesda Campus must designate a POC. The POC is usually the IC Safety Officer or a laboratory worker. (Please note: NIH regional facilities - North Carolina, Montana, and Arizona - provide their own waste services.)
5. **General Solid Waste** – solid waste that is not contaminated with and does not contain hazardous chemicals, radioactive materials or Medical Pathological Waste.
6. **Medical Pathological Waste (MPW)** - waste with presence of pathogenic agents; human tissues, animal carcasses and tissues from biomedical research; animal bedding contaminated with pathogenic agents which cannot be decontaminated through autoclaving; needles, syringes, scalpels and other sharps; materials with trace contamination of cytotoxic drugs; and other discarded materials that are regulated as medical waste by the U.S. Department of Transportation, state or local laws.
7. **Radioactive Waste** - any waste that contains or is contaminated with radioactive material that is regulated by the Nuclear Regulatory Commission (NRC).
8. **Multihazardous Waste** – wastes that meet the definition of more than one of the following types of waste: Chemical, Radioactive or Medical Pathological Waste.
9. **Mixed Waste** – a Multihazardous Waste that contains Chemical Waste and Radioactive Waste.
10. **NIH Environmental Management System (NEMS)** – a tool to improve environmental performance and incorporate sustainability throughout NIH.
11. **Wastewater** – liquid waste primarily consisting of water that is discharged to the environment through the sanitary sewer.

E. Responsibilities:

1. The Office of Research Facilities Development and Operations (ORFDO), through the Division of Environmental Protection (DEP), has overall responsibility for waste management activities at NIH facilities including:
 - a. Assisting the NIH Institutes and Centers (ICs) in meeting requirements for affirmative procurement of products and services that maximize environmental performance and minimize generation of wastes;

- b. Developing and issuing technical assistance and guidance to the ICs in managing wastes and complying with related regulatory requirements;
 - c. Setting goals and targets for waste reduction as required by the NIH Environmental Management System (NEMS) and executive orders, collecting data and information necessary to track progress in meeting goals and targets, and complying with reporting requirements;
 - d. Overseeing and providing waste management and disposal services necessary to support NIH facilities (owned and leased); and
 - e. Serving as the central NIH information repository on management of wastes from biomedical research.
2. **The Division of Radiation Safety (DRS), Office of Research Services (ORS)**, provides training, technical assistance and health physics services to the ICs on radioactive and mixed waste management, and ensures compliance with Nuclear Regulatory Commission requirements relating to management of radioactive wastes generated at NIH facilities.
3. **The Division of Occupational Health and Safety (DOHS), ORS**, is responsible for providing technical assistance and support regarding health and safety risks, and appropriate precautions relating to waste management activities. The DOHS also prepares standard operating procedures concerning removal of Asbestos Containing Material (ACM) for use by ORFDO and ORS personnel.
4. **The Division of Fire and Rescue Services (DFRS), ORS**, is responsible for providing first response to incidents involving waste management operations on the main NIH campus in Bethesda, Maryland and at other NIH facilities as directed by the Director, ORS.
5. **Employees of the Institutes and Centers (ICs)** who may generate any of the wastes as defined in this Chapter are responsible for:
- a. Purchasing and using environmentally preferable products and services in accordance with applicable regulations, executive branch policies and guidance;
 - b. Carrying out all NIH mission activities in a manner that minimizes the volume, toxicity, and radioactivity of the wastes generated;
 - c. Complying with all applicable waste management laws, regulations, executive orders, and NIH policies;
 - d. Properly managing wastes prior to collection, transfer, and recycling or disposal by appropriate components of the DEP or ICs. This includes ensuring proper segregation of wastes; separation of recyclable materials from other wastes and placement into respective collection containers; decontamination of infectious agents; identification, labeling, packaging, and storing of the waste; and
 - e. Implementing the policies and working towards the goals within the NIH and HHS Strategic Sustainability Performance Plans and the NIH Environmental Management System (NEMS). Staff may participate in development of policies through their Institute's Green Team under the NEMS.
6. **The Designated Facility Point of Contact (POC)**, at each off-campus NIH facility that generates, stores, and ships chemical and/or medical waste to an off-site treatment and disposal facility, is responsible for ensuring that copies of all required environmental regulatory documents are maintained on site at the respective NIH facility. These documents minimally include:
- a. Hazardous waste manifests and the associated Land Disposal Restriction Forms (LDRs);
 - b. Facility Contingency Plan (developed in coordination with DEP);
 - c. Hazardous waste storage room weekly inspection logs;
 - d. Hazardous waste biennial reports (developed in coordination with DEP);

- e. Record of annual RCRA hazardous waste management training (required training for all POCs and provided through DEP);
- f. Record of U.S. Dept. of Transportation (DOT) hazmat transportation/security training (required every three years only for those signing the waste shipment papers and provided through DEP);
- g. Regulated Medical Waste shipping papers.

F. Procedures:

1. **Waste Disposal** (Recyclable Materials, General Solid Waste, Medical Pathological Waste, Chemical Waste, Radioactive Waste, and Multihazardous Waste)
 - a. Please refer to the [NIH Waste Disposal Guide](#) for disposal procedures.
 - b. To obtain a printed copy of the Guide, please call DEP at 301-496-7990 or your DOHS Health and Safety Consultant at 301-496-2346.
 - i. For regional facilities, please contact your local safety or environmental consultant.
 - c. The Guide and updated information is available online at this address:
<http://orf.od.nih.gov/Environmental+Protection/Waste+Disposal/>
2. **Construction Debris**
 - a. Please refer to the [Construction Debris Waste Management and Recycling Plan](#).
3. **Asbestos Guidance**
 - a. Asbestos Containing Material Cleanup and Disposal – please contact DEP at 301-496-7990 for guidance.
 - b. Asbestos Exposure – please contact DOHS at 301-496-2346 for guidance.

G. Records Retention and Disposal:

All NIH Waste Management records (e-mail and non-e-mail) pertaining to this chapter must be retained and disposed of under the authority of [NIH Manual 1743](#), "Keeping and Destroying Records," Appendix 1, NIH Records Control Schedule, Section 1300, Item 1300 B "Safety" and Section 7000, Item 7000 C "Environmental Impact."

NIH e-mail messages, including attachments that are created on NIH computer systems or transmitted over NIH networks that are evidence of the activities of the agency or have informational value are considered Federal records. These records must be maintained in accordance with current NIH Records Management guidelines. Contact your IC Records Liaison or the NIH Records Officer for additional information.

All e-mail messages are considered Government property, and, if requested for a legitimate Government purpose, must be provided to the requester, employees' supervisor, NIH staff conducting official reviews or investigations, and the Office of Inspector General who may request access to or copies of the e-mail messages. E-mail messages must also be provided to Congressional oversight committees if requested and are subject to Freedom of Information Act requests. Back-up files are subject to the same information requests as original messages and documents.

H. Internal Controls:

The purpose of this manual issuance is to establish the NIH policy for waste minimization and management at all NIH facilities in compliance with applicable regulations and policies.

1. **Office Responsible for Reviewing Internal Controls Relative to this Chapter:**

The Division of Environmental Protection (DEP), ORFDO. Through this manual issuance, the DEP is responsible for the methods used to ensure that the internal controls are implemented and working.

2. **Frequency of Review:** Ongoing
3. **Method of Review:** The Division of Environmental Protection, ORFDO, in coordination with the Division of Radiation Safety, ORS, the Division of Occupational Health and Safety, ORS, the Division of Fire and Rescue Services, ORS, and Institute and Center (ICs) representatives as necessary, will maintain oversight and ensure effective implementation and compliance with this policy through monitoring waste operations and minimization activities at all NIH facilities.
4. **Review Reports are sent to:** the Director, DEP, ORFDO, the Associate Director for Research Facilities (ADRF), the Deputy Director for Management, NIH (DDM), and the Deputy Director for Intramural Research, NIH (DDIR). Issues of concern will be brought to the immediate attention of the ADRF.

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