

# ENVIRONMENTAL MANAGEMENT PROGRAM

**1. PROGRAM NAME:** NIEHS Solid Waste Management Program

**2. Significant Environmental Aspect(s):**

Solid Waste  
Air Emissions

**3. Document Control Code:**

EMP-2007-SolidWaste

**4. Date:**

11/23/2007

**5. Program Lead:**

Patsy Olive, Quality Assurance Specialist

## 6. Goals and Objectives

### Five-year Goals(s):

Reduce solid waste disposal via landfill by promoting waste minimization and seeking reuse and recycling opportunities for materials no longer incinerated

### Annual Objective(s):

Ensure regular and proper disposal of NIEHS solid waste.

Maintain compliance with Solid Waste Management Regulations

Promote solid waste reductions and encourage institute recycling efforts.

### Performance Indicator(s)

% of incidences resulting in inability to successfully remove and dispose of NIEHS solid waste.

Results of regulatory compliance inspections and internal compliance audits.

Percentage reduction in solid waste disposal volume and percentage increase in recycling volume.

### Resource requirements

Current resources

Current resources

Current resources

## 7. Reason(s) for Significance:

Health & safety impact  
Cost  
Legal Liability

## 8. Potential Environmental Impacts:

Land contamination; exposure to human and animal populations.

## 9. Legal and Other Requirements (Specify):

Federal: EPA Solid Waste and Ambient Air Quality standards;  
State: North Carolina DENR Division of Air Quality – NIEHS/EPA Air Quality Permit

## 10. Program Description:

The purpose of the NIEHS Solid Waste Program is to insure that solid wastes are identified, classified, collected, transported, stored, recycled, treated and/or disposed safely and in a manner protective of human health and the environment. Maximization of the quantity of material diverted from the landfill, either by recycling, reuse, or reduction in quantities used, is a primary objective. Recycling contract operations include the recycling of paper, metals, glass, plastics (including laboratory plastics),

photographic films/X-rays, cardboard, construction and demolition wastes, pallets, and animal bedding for composting. The Program strives to develop and nurture new recycling efforts, as well as continue all existing efforts. Many of these efforts extend beyond the scope of work for the recycling current contractors. For example, surplus supplies are placed on shelves in a public area for use by others, with any excess supplies being donated to local non-profit agencies, schools, and charities. Pre-consumer food waste is vermicomposted (composted with worms in bins). Tyvek lab apparel and used animal shipping boxes are returned to companies for reuse. 3-ring binders and other surplus office supplies are donated to schools, and spent toner cartridges are purchased from the Institute for refilling. The program includes all non-hazardous solid wastes generated by the NIEHS at its Research Triangle Park facilities.

### 11. Operational Controls

Activity	Controls	Responsible Position/Group	Monitoring	Records	Comments
Laboratory research projects generating solid waste	Recycling Guide  Waste Manual, Section C- General Waste  Health and Safety Manual, Chapter 4- General Safety and Lab Practices	NIH/ORF Quality Assurance Specialist  HSB Hazardous Waste Manager  HSB Safety Officer	Periodic lab Inspections		
Support services and administration generating solid waste	Recycling Guide  Waste Manual, Section C- General Waste	NIH/ORF Quality Assurance Specialist  HSB Hazardous Waste Manager			
Construction projects generating solid waste	Recycling Guide  Construction Contract(s)	NIH/ORF Quality Assurance Specialist  NIH/ORF Project Officer	Periodic inspection of collection bins  Disposal Guidance to Construction personnel	Contractor provides weight of collected waste	
Recycling of solid wastes	Recycling Contract(s)	NIH/ORF Quality Assurance Specialist	Period inspection of collection bins		Uncontaminated animal bedding is composted offsite and a percentage of the

	Vermicomposting Guidance	ASAB Employee Support Services Specialist			compost is reused onsite for grounds maintenance.  Cafeteria food waste and office fiber are reused via vermicomposting.
Incineration of solid waste	MOU between NIEHS and EPA on joint Use of the Incineration Plant (bldg 106)  NC DENR DAQ Air Quality Permit	NIH/ORF Project Officer for the NVT contract  HSB Environmental Compliance Officer	Continuous emission and operating parameter monitoring	Various logbooks	
Landfill of solid waste	Landfill Contractual Agreement  State of Va./ county landfill requirements	NIH/ORF Quality Assurance Specialist	Visual inspection of the large roll-off containers	Waste disposal firm records weight	
Monitor for Cross Contamination/Inappropriate mixture	Recycling Agreement  Landfill requirements	NIH/ORF Quality Assurance Specialist	Periodic inspection of collection bins		

**12. Action Plan: Structure, Authorities, Responsibilities**

<b>Targets/Milestones to meet Annual Objectives</b>	<b>Timeframe</b>	<b>Responsible Party/ Job Function</b>
Provide annual introductory training on institute solid waste policies and procedures	Annual	Quality Assurance Specialist / NIH/ORF
Conduct internal audit(s) of institute solid waste management practices	Annual	Quality Assurance Specialist / NIH/ORF
Conduct internal audit(s) of air quality compliance	Annual	Environmental Compliance Officer / HSB
Provide communication updates on the proper storage, handling, recycling and/or disposal of solid waste	Annual	Quality Assurance Specialist/ ORF Project Officer for NVT Contract

<b>13. Relevant Document(s)</b>		
<b>Document Name</b>	<b>Location</b>	<b>File Custodian</b>
NIEHS Recycling Guide	Web	Quality Assurance Specialist / NIH/ORF
NIEHS Waste Manual	Web	Hazardous Waste Manager / HSB
NIEHS Health & Safety Manual	Web	Safety Officer / HSB
MOU between NIEHS and EPA on Joint Use of the Incineration Plant (Bldg 106)	Electronic/Hardcopy	NIH/ORF Project Officer for the NVT contract
NIEHS Health & Safety Manual	Web-based	Safety Officer / HSB
North Carolina DENR Division of Air Quality Permit	Hard copy; electronic	Environmental Compliance Officer / HSB
Solid Waste Management Disposal Contract	Hardcopy	Quality Assurance Specialist / NIH/ORF
Solid Waste Recycling Contract	Hardcopy	Quality Assurance Specialist / NIH/ORF
Animal Bedding Composting Contract/Agreement	Hardcopy	Quality Assurance Specialist / NIH/ORF
<b>14. Competence of persons responsible</b>		
<b>Title</b>	<b>Basis for Competence</b>	
NIH/ORF Quality Assurance Specialist	Qualified experience and on-the-job training	
ASAB/Employee Services Support Specialist	Professional level education and experience	
NIH/ORF Project Officer for NVT Contract	Qualified experience and on-the-job training	
HSB/Hazardous Waste Manager	Professional level education and experience	
HSB/Environmental Compliance Officer	Professional level education and experience	
HSB/Safety Officer	Professional level education and experience	
<b>15. Authorization</b>		
<b>Name / Signature:</b>	William K. Steinmetz	
<b>Date:</b>	November 29, 2007	