

ENVIRONMENTAL MANAGEMENT PROGRAM

1. PROGRAM NAME: NIEHS Air Emissions Program

2. Significant Environmental Aspect(s):
Air emissions

3. Document Control Code: EMP-2007-AirEmissions

4. Date: 11/29/2007

5. Program Lead: Bill Steinmetz – HSB

6. Goals and Objectives

Five-year Goals(s):	Annual Objective(s):	Performance Indicator(s)	Resource requirements
Develop air quality program for the Other Solid Waste Incineration MACT	Maintain compliance with North Carolina air quality permit	State air quality compliance inspections, reporting submittals, and internal compliance audits	Current resources
	Maintain compliance with federal and state air quality regulations	State air quality compliance inspections, reporting submittals, and internal compliance audits	Current resources
	Maintain synthetic minor status	Actual criteria pollutant emission remain below 100 tons per year	Current resources

7. Reason(s) for Significance:
Potential health impact
Legal and regulatory requirements

8. Potential Environmental Impacts:
Boiler and fleet/commuter vehicle emissions potentially contribute to ozone formation
Potential offsite impact

9. Legal and Other Requirements (Specify):
North Carolina Air Quality Permit
Other state and federal air quality regulations

10. Program Description:
This program contains criteria for air emissions and performance standards applied to Federally owned and operated equipment at the NIEHS / EPA campus. The NIEHS is permitted by the North Carolina Division of Air Quality to operate incinerators, boilers, emergency generators, and wood shop dust control equipment. The air permit requires the annual reporting of emissions data and mandates specific operating ranges and limitations for the permitted equipment. Continuous monitoring of incinerator process and pollution control parameters including temperature, differential pressure, pH, and

liquid flow is also required. The NIEHS air permit also includes several pieces of equipment that are located within the adjacent EPA research facility since the two facilities are located on contiguous property under the same ownership (i.e., United States Government). This program also addresses emissions from motor vehicles, petroleum storage tanks, and laboratory hoods as well as VOC management.

11. Operational Controls

Activity	Controls	Responsible Party / Job Function	Monitoring	Records	Comments
Laboratory research activities generating medical, chemical, radioactive and other solid wastes	Waste Manual Waste Minimization Plan HSB Approval of Laboratory Research Protocols	HSB / Hazardous Waste Manager HSB Safety Officer Principal Investigators	Periodic lab inspections Program reviewed annually	Protocol documents	
Other mission supporting activities generating solid waste that may enter the incinerated waste stream	Waste Manual Recycling Guide QA Guidelines: Building 106 Incineration Program	HSB / Hazardous Waste Manager ASAB / Employee Services Specialist NVT Incinerator Operators Employees disposing solid waste	Incinerated waste stream monitored for unacceptable materials	Weight of recycled materials	
Building 108 Chemical waste TSD facility operations	HEPA/Carbon filters Hazardous Waste Permit MOU between NIEHS and EPA on Building 108 Operations	HSB / Hazardous Waste Manager HSB / Hazardous Waste Specialist	Periodic inspections	Online chemical waste pickup requests, shipping manifests, HEPA / Carbon filter change records	
Incineration of medical, chemical and other solid waste generated by NIEHS/EPA research activities	NCDAQ Air Quality Permit QA Guidelines: Building 106 Incineration Program	ORF/FOB NVT Project Officer NVT Operations Supervisor	Operational parameters are continuously monitored and routinely recorded	Building 106 Incinerator data acquisition system NVT Incinerator	

	<p>MOU between the NIEHS and the EPA for Joint Use of the Incineration Plant (Bldg. 106)</p> <p>Operations and maintenance manual</p>	<p>NVT Utility & Incinerator Operators</p> <p>HSB / Hazardous Waste Manager</p> <p>HSB / Environmental Compliance Officer</p>	<p>Visible emissions evaluation</p>	<p>Operator logbooks</p> <p>Environmental Compliance Officer logbooks</p>	
<p>Incineration of decayed radioactive waste</p>	<p>NCDAQ Air Quality Permit</p> <p>QA Guidelines: Building 106 Incineration Program</p> <p>MOU between the NIEHS and the EPA for Joint Use of the Incineration Plant (Bldg. 106)</p> <p>Operations and maintenance manual</p>	<p>ORF/FOB NVT Project Officer</p> <p>NVT Operations Supervisor</p> <p>NVT Utility & Incinerator Operators</p> <p>HSB / Radiation Safety Officer</p> <p>HSB / Hazardous Waste Manager</p> <p>HSB / Environmental Compliance Officer</p>	<p>Continuous monitoring of upper and lower chamber temperature</p> <p>Charge weight recorded for each load</p> <p>Visible emissions evaluation</p>	<p>NVT Incinerator Operator logbooks</p>	
<p>Boiler operations</p>	<p>NCDAQ Air Permit</p> <p>40 CFR 60 Subpart Dc (NSPS Boilers)</p> <p>20% opacity requirement</p> <p>NSPS requirement for low sulfur fuel (0.5% sulfur by weight)</p> <p>Manufacturer</p>	<p>ORF/FOB NVT Project Officer</p> <p>NVT Operations Supervisor</p> <p>NVT Utility Operators</p>	<p>Visible emissions evaluation</p>	<p>Fuel use records</p>	

	recommended procedures				
Emergency generator operations	NCDAQ Air Permit 40 CFR 60 NSPS for CI/ICE Internal Combustion Engines Manufacturer recommended procedures	ORF/FOB NVT Project Officer NVT Operations Supervisor NVT Utility Operators	Operating hours	Generator logbooks	
Woodshop baghouse operations	NCDAQ Air Permit Manufacturer recommended procedures	ORF/FOB personnel and contractors using wood cutting equipment in the BLDG 102 shops area	Visible emissions evaluation Annual baghouse inspection	Environmental Compliance Officer logbook Baghouse logbook	
Fleet vehicle operations	Stage II vapor recovery system on the E85 storage tank Manufacturer recommended procedures	ASAB Transportation Specialist	Product inventory	E85 fuel delivery records GSA fuel usage database	

12. Action Plan: Structure, Authorities, Responsibilities

Targets/Milestones to meet Annual Objectives	Timeframe	Responsibility
Internal air quality compliance audits of Building 106 incinerators	Weekly	Environmental Compliance Officer / HSB
Air quality report data collection	Quarterly	Environmental Compliance Officer / HSB
Air quality report submittal	Annual	Environmental Compliance Officer / HSB
Provide chemical waste disposal training for all new laboratory employees through the Intro to Health & Safety course	Semiannual	Hazardous Waste Manager / HSB
Promote battery recovery program to encourage proper disposal of batteries and reduce potential for cadmium and lead to enter the incinerated waste stream	Semiannual	Hazardous Waste Manager / HSB

13. Relevant Document(s)

Document Name	Location	Document Custodian
NIEHS Waste Manual	Web-based	Hazardous Waste Manager / HSB
NIEHS Health & Safety Manual	Web-based	Safety Officer / HSB
NIEHS Waste Minimization Plan	Hardcopy, electronic	Hazardous Waste Manager / HSB
North Carolina Air Quality Permit	Hardcopy, electronic	Environmental Compliance Officer / HSB
North Carolina Hazardous Waste Permit	Hardcopy, electronic	Hazardous Waste Manager / HSB
MOU between EPA & NIEHS for joint use of Incineration Plant	Hardcopy, electronic	NVT contract project officer / ORF/FOB
Consutech Engineering Submittal Book	Hardcopy	Environmental Compliance Officer / HSB
Emcotek Training, Operations, and Maintenance Manual	Hardcopy	Environmental Compliance Officer / HSB
Code of Federal Regulations	Hardcopy, online	Environmental Compliance Officer / HSB
NIEHS Recycling Guide	Hardcopy, web-based	Employee Service Support Specialist/ ASAB
Executive Order 13149	Online	Environmental Compliance Officer / HSB

14. Competence of persons responsible

Title	Basis for Competence
HSB / Environmental Compliance Specialist	Professional level education and experience
HSB / Hazardous Materials Manager	Professional level education and experience
HSB / Safety Officer	Professional level education and experience
HSB / Radiation Safety Officer	Professional level education and experience
NIH / ORF/FOB NVT Project Officer	Qualified experience and on-the-job-training
NVT Operations Supervisor	Qualified experience and on-the-job training
NVT Incinerator and Utility Operators	On-the-job training / Introductory and refresher training (RCRA Contingency/SPCC)
ASAB / Transportation Specialist	Qualified experience and on-the-job-training
ASAB / Employee Services Support Specialist	Qualified experience and on-the-job-training
DIR Principal Investigators	On-the-job training / Introductory and refresher training (Intro to HSB, Radiation Safety, Laboratory Safety)

15. EMS Review

Name / Signature:	William K. Steinmetz
Certification Date:	November 29, 2007