



NEMS ENVIRONMENTAL MANAGEMENT PROGRAM

PROGRAM NAME:	Radioactive Waste		
SIGNIFICANT ENVIRONMENTAL ASPECT(S): Radioactive Waste	DOCUMENT NUMBER:	TBD	
	DATE REVISED:	09/19/07	
	REVISION NUMBER:	1	
	SUNSET DATE:	11/30/07	
	PROGRAM LEAD:	Wendy Rubin, DRS,ORS	
SECTION 1 – PROGRAM DESCRIPTION			
Radioactive waste is generated at the NIH Bethesda campus through experiments and treatment protocols. Radioactive wastes generated at NIH include aqueous radioactive solutions, liquid scintillation fluids and vials, and materials contaminated with radioactive material (e.g., animal and patient wastes). The Radioactive Waste Service has been established to provide waste containers and labels and facilitate radioactive waste collection services throughout the campus. Radioactive wastes are treated onsite, if possible, or sent offsite for treatment and disposal.			
SECTION 2 – GOALS AND OBJECTIVES			
FIVE-YEAR GOAL: Reduce Off-Site Disposal of Liquid Scintillation Vials <i>Justification: Cost savings</i>	Performance Indicator(s): system installed; investigation completed		Resource requirements: No additional resources required
A. Objective: Install system to treat vials when required building renovation is complete	Performance Indicator(s): system installed	Responsibility: Wendy Rubin	Timeframe: December 2007
B. Objective: Investigate potential for procuring treatment system for treating scintillation liquid at NIH	Performance Indicator(s): investigation completed	Responsibility: Wendy Rubin	Timeframe: December 2007
SECTION 3 – PROGRAM DESCRIPTION, SIGNIFICANCE, IMPACTS AND REQUIREMENTS			
REASON(S) FOR SIGNIFICANCE:	<ul style="list-style-type: none"> a. This aspect has the potential to significantly impact the human health and the environment through radioactive emissions and potential contamination of land, groundwater, and surface water resources b. This aspect represents a significant cost to NIH c. This aspect is important to NIH's relationship to the local community and the public at large 		
POTENTIAL ENVIRONMENTAL/ ORGANIZATIONAL IMPACTS:	<ul style="list-style-type: none"> a. Human health impacts b. Toxic air emissions c. Potential contamination of land, groundwater, and surface waters 		
LEGAL AND OTHER REQUIREMENTS:	<ul style="list-style-type: none"> a. Occupational Health and Safety Act b. Resource Conservation and Recovery Act c. COMAR 26, Subtitles 4, 10, 13, 26 		

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- d. Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management
- e. Nuclear Regulatory Commission license

SECTION 4 – OPERATIONAL CONTROLS

ACTIVITY(IES) THAT GIVES RISE TO ASPECT	CONTROL(S)	RESPONSIBLE PERSON	MONITORING	RECORDS	ACTION TAKEN IF CONTROL FAILS
Management of Radioactive Waste	NIH Waste Disposal Guide & Website	Area Health Physicist	Periodic review of the guide	Record of guide revisions	Document revision and distribution
Facility Construction/ Renovation/ Decommissioning	DRS Clearance Process	Area Health Physicist	Survey performed	Review of survey results	TBD
Equipment surplus, repair, or move (except LSC & gamma counters)	Certification that Equipment is Free from Hazards (NIH 2683)	Authorized User	Survey performed	Copies of form NIH 2683	Authorized User training
LSC & Gamma Counter Surplus	DRS Clearance Process	Area Health Physicist & Lab Staff	Source removal by Manufacturer & survey performed	Source removal record & survey results	Revision of DRS Clearance Process
Radioactive Material Contamination Monitoring	Survey Form (NIH 88-12)	Authorized User	Surveys performed monthly and following radioactive material use	Copies of survey form NIH 88-12 sent to DRS	Material use suspension
Procurement of Radioactive Materials	Request for Purchase and Use of Radioactive Materials (NIH 88-1)	Materials Supply Officer	Daily review of database	Copies of NIH 88-1 & Database	Material held in storage in Bldg. 21
Radioactive Isotope Use, Storage and Transportation	Radioactive Material Utilization and Disposal Record (NIH 88-16) & Material Limits in Database	Materials Supply Officer & Area Health Physicist	Daily review of database and perform annual inventory of material	Database	Material held in storage in Bldg. 21

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Human Tissue Pathology/Histology	Radiation Safety Protocols	Principal Investigator	Health Physicist Annual Review of Protocol	Protocol	Protocol revision
Cage Washing, Bedding Storage & Disposal, Animal Husbandry, Animal Surgery, & Decontamination of Animal & Care Equipment	Radiation Safety Protocols	Principal Investigator	Health Physicist Annual Review of Protocol	Protocol	Protocol revision

SECTION 5 – RELEVANT DOCUMENT(S)

DOCUMENT NAME	LOCATION	RESPONSIBLE PERSON
NIH Radiation Safety Guide	http://drs.ors.od.nih.gov/	Division of Radiation Safety, Office of Research Services
NIH Manual Issuance 3032, Waste Minimization and Management at NIH	http://orf.od.nih.gov/Environmental+Protection/Waste+Disposal/radwaste.htm	Director, DEP
Procedures for Radiological Clearances of Equipment and Devices	http://drs.ors.od.nih.gov/policy/equip_clearance.htm	Division of Radiation Safety, Office of Research Services
Radiation Safety Protocols	http://drs.ors.od.nih.gov/policy/protocols.htm	Division of Radiation Safety, Office of Research Services

SECTION 6 – COMPETENCY OF RESPONSIBLE PERSONS

NAME/TITLE	BASIS FOR COMPETENCE
Authorized Users	Attend and successfully complete Radiation Safety for Authorized Users course and receive permission from the Radiation Safety Committee to become an Authorized User
Area Health Physicist	Degree and experience
Radiation Safety Officer	Degree and experience

SECTION 7 – AUTHORIZATION

NAME:	
SIGNATURE:	

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NIH Environmental Management System

Take Action to Protect the Future

Document Number: TBD

Date Revised: 09/19/07

Revision Number: 1

Sunset Date: 11/30/07

DATE:

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