

ENVIRONMENTAL MANAGEMENT PROGRAM

1. PROGRAM NAME: NIEHS Drinking Water Program

2. Significant Environmental Aspect(s):

Water Consumption

3. Document Control Code: EMP-2007-DrinkingWater

4. Date: 11/29/2007

5. Program Lead:
Bill Steinmetz – HSB
NIH/ORF USRO
Gordon Caviness – CMB/QAL

6. Goals and Objectives

Five-year Goal(s):	Annual Objective(s):	Performance Indicator(s)	Resource requirements
Test all drinking water sources every two years	Provide safe drinking water by annually changing all filters	% filters changed 1.5 years following installation	Current resources
	Maintain compliance with EPA drinking water standards	All test results meet EPA primary and secondary drinking water standards	Current resources
	Provide additional water filters as needed based on test results	Assure that filters meet ANSI/NSF Standards 42 (aesthetic) and 53 (health) for reducing contaminants in drinking water	Current resources
	Maintain compliance with cross connection regulations	Water vacuum breakers installed in research laboratories as required Backflow prevention system maintained as required	Current resources

7. Reason(s) for Significance:
Potential health impact
Legal or Other Requirement

8. Potential Environmental Impacts:
Drinking water system contamination

9. Legal and Other Requirements (Specify):

EPA National Primary and Secondary Drinking Water Standards

10. Program Description:

Domestic water is provided to NIEHS facilities by the City of Durham. The municipal water supply is required to meet primary and secondary drinking water standards established by the EPA. All water fountains located in Building 101, Modules A - E are equipped with water filtration cartridges designed to remove 99 percent of chlorine, 90 percent of lead, as well as sediment, rust, bad taste and odor. Filtered water is also provided in the hallway break areas located just outside of the Building 101 D and E Module conference rooms and in the F1 and F2 break rooms. Filters are replaced on an annual basis or after 1200 gallons of water usage. Drinking water fountains located in Building 101, F-Module are not filtered as they have been certified lead-free by the manufacturer and were subsequently tested with satisfactory results following initial installation. Samples collected from all F-Module water fountains indicated levels of copper and iron that are below EPA drinking water guidelines and non-detectable levels of lead.

11. Operational Controls

Activity	Controls	Responsible Party / Job Function	Monitoring	Records	Comments
Water consumption from fountains, bottled water coolers and break area faucets	City of Durham Water Treatment Plant Backflow prevention program Vacuum breakers installed on laboratory faucets Separate icemakers provided for lab usage and human consumption HSB water bottle changing procedure	City of Durham NIH/ORF USRO HSB / Environmental Compliance Specialist	City of Durham water quality testing NIEHS inspection & maintenance program Periodic lab inspections	City of Durham water test results NIEHS inspection & maintenance records	
Drinking water filter replacement	Procedure for filter installation provided by the manufacturer	NIH/ORF USRO	Filters replaced annually	Water filter database Filter installation date logged on filter housing	
Maintenance and repair of drinking water sources	Plumbing maintenance and repair procedures	NIH/ORF USRO	Maintenance and repair occur on an as needed basis	Work order requests submitted through email Help	A small amount of bottled water stations are also located onsite, maintained through a

	obtained through on-the-job training and/or plumbing certification			Desk	contract
Drinking water sampling and analysis program	EPA drinking water sampling procedures and contract laboratory procedures National Primary and Secondary Drinking Water Regulations	CMB / Quality Assurance Laboratory	Procedure reviewed annually	Quality Assurance Request Form (QAL sampling records) Contract lab analytical results	Drinking water samples are evaluated in-house for microbiological contaminants. All other parameters are evaluated offsite by contract laboratories

12. Action Plan: Structure, Authorities, Responsibilities

Targets/Milestones to meet Annual Objectives	Timeframe	Responsible Party/ Job Function
Annually replace all drinking water filters	Annual	NIH/ORF USRO
Assure that all drinking water filters are replaced	Annual	NIEHS/HSB Environmental Compliance Specialist
Test drinking water sources every two years or as requested by HSB	Biennial	NIEHS/CMB/QAL

13. Relevant Document(s)

Document Name	Location	File Custodian
EPA National Primary & Secondary Drinking Water Standards	Bldg 101 A-basement HSB files	HSB / Environmental Compliance Specialist

14. Competence of persons responsible

Title	Basis for Competence
HSB / Environmental Compliance Specialist	Professional level education and experience; On-the-job Training,
NIH / ORF USRO	On-the-job Training,
CMB / Quality Assurance Laboratory	On-the-job Training

15. Authorization

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