



# NEMS ENVIRONMENTAL MANAGEMENT PROGRAM

<b>PROGRAM NAME:</b>	Energy and Water Management Program		
<b>SIGNIFICANT ENVIRONMENTAL ASPECT(S):</b> Energy and water consumption	<b>DOCUMENT NUMBER:</b>	EMS.EMP.10.2006.BALT	
	<b>DATE REVISED:</b>	11.20.2006	
	<b>REVISION NUMBER:</b>		
	<b>SUNSET DATE:</b>		
	<b>PROGRAM LEAD:</b>	Scott Koehler	

## SECTION 1 – PROGRAM DESCRIPTION

Energy and water consumption are regulated in EPA Act 2005, as well as EO 13123. NIH as an Agency has developed energy and water management programs. NIA and NIDA is working towards developing programs consistent with Agency plans.

The Energy and Water Management Program is designed to help NIH Baltimore improve the way energy and water use and consumption is managed at the facility. It provides a mechanism to set goals and objectives to meet associated legal and other requirements as well as engage senior management for their support. An effective Energy and Water Management Program has the potential to reduce costs to the facility, while reducing their environmental footprint.

## SECTION 2 – GOALS AND OBJECTIVES

<b>GOAL:</b>  <i>Justification:</i>	<b>Performance Indicator(s):</b>	<b>Resource requirements:</b>	
<b>A. Objective:</b> Upgrade to more energy efficient chillers and towers in the GRC	<b>Performance Indicator(s):</b>	<b>Responsibility:</b> Scott Koehler	<b>Timeframe:</b>
<b>- Target/Milestone:</b>	<b>Performance Indicator(s):</b>	<b>Responsibility:</b>	<b>Timeframe:</b>

## SECTION 3 – PROGRAM DESCRIPTION, SIGNIFICANCE, IMPACTS AND REQUIREMENTS

<b>REASON(S) FOR SIGNIFICANCE:</b>	<ul style="list-style-type: none"> <li>▪ This aspect represents a significant cost to NIH</li> <li>▪ This aspect has the potential to impact the environment through natural resource consumption</li> <li>▪ This aspect is important to NIH's relationship to the local community and the public at large</li> <li>▪ This aspect has the potential to significantly impact the environment through air emissions and natural resource consumption</li> </ul>
<b>POTENTIAL ENVIRONMENTAL/ ORGANIZATIONAL IMPACTS:</b>	<ul style="list-style-type: none"> <li>▪ Financial costs</li> <li>▪ Resource depletion</li> </ul>

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	<ul style="list-style-type: none"> <li>▪ Public image/community relations</li> <li>▪ Greenhouse gas contribution</li> <li>▪ Air pollution (smog, acid rain, dust, visual impairment)</li> </ul>
<b>LEGAL AND OTHER REQUIREMENTS:</b>	<p><b>Energy</b></p> <ul style="list-style-type: none"> <li>▪ EPACT 2005CWA</li> <li>▪ EO 13123: Efficient Energy Mgmt.</li> <li>▪ EO 13221: Energy Eff. Standby Power Devices</li> <li>▪ Presidential Directive on Energy &amp; Fuel Conservation</li> <li>▪ FAR Subpart 23.2</li> <li>▪ DHHS goals and guidance</li> <li>▪ MOU on High Performance and Sustainable Buildings</li> </ul> <p><b>Water</b></p> <ul style="list-style-type: none"> <li>▪ EPACT 2005</li> <li>▪ EO 13123</li> <li>▪ MOU on High Performance and Sustainable Buildings</li> <li>▪ DHHS goals and guidance</li> </ul>

**SECTION 4 – OPERATIONAL CONTROLS**

ACTIVITY(IES) THAT GIVES RISE TO ASPECT	CONTROL(S)	RESPONSIBLE PERSON	MONITORING	RECORDS	ACTION TAKEN IF CONTROL FAILS
Animal Husbandry	<ul style="list-style-type: none"> <li>▪ CMS SOP Book</li> <li>▪ Terms of contract</li> </ul>				
Benchtop Lab Equipment Use	<ul style="list-style-type: none"> <li>▪</li> </ul>				
Cage Washing	<ul style="list-style-type: none"> <li>▪ CMS SOP Book</li> <li>▪ Terms of contract</li> </ul>				
Chemical, Biological and Radioactive Isotope Use, Storage, Disposal and Transportation	<ul style="list-style-type: none"> <li>▪ NIA/ NIDA safety orientation and annual refresher courses</li> <li>▪ PI Compliance</li> </ul>				

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	Statement				
DI System (Deionized Water)	▪	▪	▪	▪	▪
Equipment Cooling (Direct or Indirect)	▪	▪	▪	▪	▪
Fume Hood Use	▪ Fume hood usage training	▪	▪	▪	▪
Imaging (x-ray)	▪	▪	▪	▪	▪
Janitorial services	▪ Terms of contract	▪	▪	▪	▪
Lab maintenance services (electrical, painting, plumbing)	▪	▪	▪	▪	▪
Maintenance of fire equipment and systems	▪	▪	▪	▪	▪
Operation and Maintenance of HVAC Systems	▪ O&M Manual	▪	▪	▪	▪
Operation of Central Utility Plant (Chillers, Boiler, Cooling Towers)	▪ O&M Manual	▪	▪	▪	▪
Use of electromagnetic radiation equipment	▪	▪	▪	▪	▪
Use of emergency generators	▪ Routine operational testing of generators	▪	▪	▪	▪
Use of Office Equipment	▪	▪	▪	▪	▪

**Procurement of Chemicals and Pharmaceutical products**

DOCUMENT NAME	LOCATION	RESPONSIBLE PERSON
Contract with Quitlabs		
NIH Chemical Hygiene Plan		

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NIH Manual Chapter 3034: Working with Hazardous Materials		
NIH Manual Issuance 3032, Waste Minimization and Management at NIH	<a href="http://www1.od.nih.gov/oma/manualchapters">http://www1.od.nih.gov/oma/manualchapters</a>	
NIH Policy on HVAC systems		
NIH Policy on purchase of Energy Star equipment		
NIH Waste Disposal Guide	<a href="http://orf.od.nih.gov/Environmental+Protection/Waste+Disposal/">http://orf.od.nih.gov/Environmental+Protection/Waste+Disposal/</a>	
NIH Radiation Safety Guide	<a href="http://drs.ors.od.nih.gov/">http://drs.ors.od.nih.gov/</a>	

**SECTION 6 – COMPETENCY OF RESPONSIBLE PERSONS**

NAME/TITLE	BASIS FOR COMPETENCE
Scott Koehler	Senior facility manager; Mechanical engineer; 15 years experience at NIH Baltimore.

**SECTION 7 – AUTHORIZATION**

<b>NAME:</b>	
<b>SIGNATURE:</b>	
<b>DATE:</b>	

**DRAFT**

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