



Forms
Contact List
SBMS Instructions
Help Desk

Find Subject Areas:

[Show Side Menu](#) Search Subject Areas & Legacy Documents:

Contents: Non-Radioactive Airborne Emissions

Effective Date: **March 1999**

Point of Contact: [Environmental Subject Matter Expert](#)

Section	Overview of Content (see section for full process)
Introduction	
1. Start-Up of New Equipment and/or Operations that Produce Airborne Emissions	<ul style="list-style-type: none"> • Complete and return inventory form. • Determine if operating permit application is required. • Submit operating permit application. • Follow monitoring, reporting, and record-keeping requirements. • Utilize, operate, and maintain emission control devices.
2. Requirements for Operating Existing Equipment or Modifying Operations that Produce Airborne Emissions	<ul style="list-style-type: none"> • Determine if permit modification is required. • File operating permit modification application. • Adhere to monitoring, reporting, and record-keeping requirements.
3. Decommissioning Existing Sources of Airborne Emissions	<ul style="list-style-type: none"> • Decommission permitted emission sources. • Confirm and document decommissioning. • Cancel operating permit for source.
Definitions	
Exhibits None	
Forms Emission Source Modification Form Non-Radioactive Emission Source Inventory Form	

Training Requirements and Reporting Obligations

This subject area does not contain training requirements.

This subject area contains the following reporting obligations:

Reporting requirements applicable to an emission source or group of similar emission sources are described in the [Title V Regulatory Requirements/Compliance Assurance Database](#) and can be viewed using the database query options.

The Environmental and Waste Management Services Division is responsible for the preparation and submittal of quarterly, semi-annual, annual and other periodic reports required by applicable State and Federal regulations or by the conditions of BNL's Title V Permit. Staff responsible for the operation of an emission source or sources described in BNL's Title V Permit are responsible for supplying monitoring data or other information about the operation of the emission source(s) required in reports. Facility reporting requirements are described in the [Title V Regulatory Requirements/Compliance Assurance Database](#) and can be viewed using the Summary of Applicable Facility Level Requirements query option.

References

6 NYCRR Subpart 201-3, Exemptions and Trivial Activities

[BNL Title V Facility Permit](#)

Clean Air Act and Clean Air Act (CAA) Amendments of 1990

[Exhaust Ventilation](#) Subject Area

[Title V Regulatory Requirements/Compliance Assurance Database](#), [Environmental and Waste Management Services Division](#) website

Standards of Performance

All staff and guests shall comply with applicable Laboratory policies, standards, and procedures, unless a formal variance is obtained.

All staff and guests shall promptly report accidents, injuries, ES&H deficiencies, emergencies, and off-normal events in accordance with procedures.

Managers shall analyze work for hazards, authorize work to proceed, and ensure that work is performed within established controls.

Managers shall ensure that work is planned to prevent pollution, minimize waste, and conserve resources, and that work is conducted in a cost-effective manner that eliminates or minimizes environmental impact.

Before waste is generated, managers shall ensure that it has a funded and available disposition pathway. Managers shall ensure that all hazardous materials and waste have an identified owner who is accountable for its proper disposition.

All staff and users shall identify, evaluate, and control hazards in order to ensure that work is conducted safely and in a manner that protects the environment and the public.

All staff and users shall ensure that environmental effluents, emissions, and wastes associated with their work are as low as reasonably achievable (also referred to as "E-ALARA").

Management System

This subject area belongs to the **Environmental Management System** management system.

[Back to Top](#)

1.3-082004/standard/Oi/Oi00t011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)



[Forms](#) [Contact List](#) [SBMS Instructions](#) [Help Desk](#)

Find Subject Areas:

[Show Side Menu](#) **Search Subject Areas & Legacy Documents:**

Introduction: Non-Radioactive Airborne Emissions

Effective Date: **March 1999**

Point of Contact: [Environmental Subject Matter Expert](#)

The primary federal law regulating airborne emissions is the Clean Air Act (CAA). The U. S. Environmental Protection Agency and the New York State Department of Environmental Conservation administer the federal and state regulations enacted to meet the CAA goals to improve and maintain the ambient air quality. The regulations enforced by these agencies establish permitting, pollution control, monitoring, reporting, and record-keeping requirements as well as emission limits for various emission source categories.

Under the authority granted to them by the U. S. Environmental Protection Agency, the New York State Department of Environmental Conservation administers a permitting program designed to improve and maintain the ambient air quality. The Laboratory has been issued a Title V Facility Permit that identifies those Laboratory processes and operations subject to state and federal regulations. Conditions of the permit establish record keeping, periodic reporting, and emissions monitoring requirements for emission sources covered under the permit. Conditions of the permit also prohibit the Laboratory from constructing and operating new regulated emission sources or modifying existing emission sources covered by the permit unless an application is submitted to and approved by the New York State Department of Environmental Conservation.

This subject area identifies the procedures for informing the Environmental and Waste Management Services Division of new sources of non-radioactive emissions that must be reviewed and of planned modifications to existing sources that may result in emission increases or changes in the pollutants released. Procedures are included for informing the Environmental and Waste Management Services Division of permitted emission sources that have been decommissioned. Finally, the line manager's responsibilities for meeting applicable regulatory requirements are defined. These procedures and guidelines will help to ensure that Laboratory sources of non-radioactive airborne emissions meet applicable federal and state requirements.

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/0i/0i00i011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)



Forms
Contact List
EWG Instructions
Help Desk

Find Subject Areas:

Show Side Menu Search Subject Areas & Legacy Documents:

Subject Area: *Non-Radioactive Airborne Emissions*

1. Start-Up of New Equipment and/or Operations that Produce Airborne Emissions

Effective Date: **March 1999**

Point of Contact: [Environmental Subject Matter Expert](#)

Applicability

This information applies to Line Managers who are responsible for projects, activities, and/or facility modifications involving the installation of new equipment and/or start-up of operations that generate non-radioactive airborne emissions.

Required Procedure

In cases where a BNL supplier or contractor performs the work described within this procedure, the Line Manager must communicate these requirements to the supplier or contractor and ensure that they are followed.

Step 1	<p>Complete and return the Non-Radioactive Emission Source Inventory Form , or provide equivalent information on new emission sources to the Environmental Subject Matter Expert if any of the following applies</p> <ul style="list-style-type: none"> • Atmospheric discharges are identified as a concern on the work permit form during the work planning process for new operations; • The Experimental Safety Review process determines that administrative or engineering controls are needed for toxic airborne emissions that will be generated during a proposed experiment; • Exhaust ventilation is planned to protect workers from inhalation exposure to airborne emissions (see the Exhaust Ventilation Subject Area). <p>Note: Your Environmental Compliance Representative is available to assist you in completing this form.</p>
Step 2	<p>The Environmental Services and Waste Management Division (ESWMD) reviews the completed inventory form or equivalent emission source information provided and determines if an operating permit application is required.</p>

	<p>An operating permit application is not required</p> <ul style="list-style-type: none"> • if the new source of emissions can be considered an activity that the New York State Department of Environmental Conservation (NYSDEC) has classified as an exempt or trivial emission source, and no other Clear Air Act requirements are applicable to the source; or • if the new emission source can be added to an existing emission unit within BNL's Title V Facility Permit, doesn't require a pollution control device, and doesn't trigger any new regulatory requirements.
<p>Step 3</p>	<p>If an operating permit application is required, ESWMD submits an application to modify BNL's Title V Facility Permit to NYSDEC from the information provided. Upon approval of the application, ESWMD forwards a copy of the permit to the source operator and advises the operator of any special permit conditions.</p>
<p>Step 4</p>	<p>Line Managers responsible for emission sources receiving new operating permits must adhere to all general and special conditions of the permit. Said conditions may include monitoring, reporting, and record-keeping requirements. As a general requirement, all line managers responsible for emission sources maintain records of hours of operation and/or materials processed that will enable them and ESWMD staff to estimate actual annual emissions from the source.</p>
<p>Step 5</p>	<p>Line Managers responsible for new emission sources that utilize pollution-control devices must operate and maintain such devices in a manner consistent with good engineering practices.</p> <p>Note: This requirement applies to pollution-control devices on permitted sources as well as on sources that can be classified as exempt or trivial activities.</p>

Guidelines

Begin the notification process as early as possible. If the Environmental Services and Waste Management Division (ESWMD) determines that an operating permit application is required, remit any additional information for the application at least 60 days prior to the anticipated installation or start-up to ensure adequate time for preparation and processing of the application.

References

[BNL Title V Facility Permit](#)

Clean Air Act and Clean Air Act (CAA) Amendments of 1990

| [Continue to Next Page](#) |

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/Oi/Oi01d011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)



Forms
Contact List
EWG Instructions
Help Desk

Find Subject Areas:

[Show Side Menu](#) Search Subject Areas & Legacy Documents:

Subject Area: *Non-Radioactive Airborne Emissions*

2. Requirements for Operating Existing Equipment or Modifying Operations that Produce Airborne Emissions

Effective Date: **March 1999**

Point of Contact: [Environmental Subject Matter Expert](#)

Applicability

This information applies to Line Managers who are responsible for existing equipment and/or operations that generate non-radioactive airborne emissions.

Required Procedure

This procedure is required whenever planned changes in the use of equipment or operations will result in an increase in potential emissions from an air emission source or the generation of different pollutants. Examples of changes that would require this procedure include an increase in the hours of operation, changes in materials processed, or modifications of pollution control devices. Steps 4 and 5 also include guidelines for operating existing air emission sources under a permit.

In cases where a BNL supplier or contractor performs the work described within this procedure, the line manager communicates these requirements to the supplier or contractor and ensures that they are followed.

Step 1	<p>Complete and return the Emission Source Modification Form or provide equivalent information to the Environmental Subject Matter Expert if any of the following applies:</p> <ul style="list-style-type: none"> Atmospheric discharges are identified as a concern on the work permit form during the work planning process for operations that will be modified; The Experimental Safety Review process determines that administrative or engineering controls are needed for toxic airborne emissions that will be generated as the result of changes to an existing experiment; Exhaust ventilation is required to protect workers from inhalation exposure
---------------	---

	<p>to airborne emissions generated as a result of modifications to an existing process (see the Exhaust Ventilation Subject Area).</p> <p>Note: Your Environmental Compliance Representative is available to assist you in completing this form.</p>
Step 2	<p>The Environmental and Waste Management Services Division (EWMSD) must review the completed modification form and determines if a modification to BNL's Title V Facility Permit is required. Previously identified processes determined to be exempt from New York State permitting requirements by EWMSD will be subject to permitting requirements if regulatory requirements become applicable as a result of process changes and the modified emissions source cannot be included in an existing emission unit of BNL's Title V Facility Permit.</p>
Step 3	<p>EWMSD files a modification application with the New York State Department of Environmental Conservation (NYSDEC). Upon approval of the application, EWMSD forwards a copy of the permit to the operator and advises the source operator of any special permit conditions.</p>
Step 4	<p>Line Managers who are responsible for emission sources covered by the BNL Title V Facility Permit must adhere to all general and special conditions of the permit. Said conditions may include monitoring, reporting, and record-keeping requirements. As a general requirement, all line managers responsible for permitted emission sources maintain records of hours of operation and/or materials processed that will enable them and EWMSD staff to estimate actual annual emissions from the source. Source owners can access the Title V Regulatory Requirements/Compliance Assurance Database to review conditions of the Title V Facility Permit and other regulatory requirements not otherwise listed in the permit that are applicable to an emission unit, process, or emission source.</p>
Step 5	<p>Line Managers who are responsible for emission sources that utilize pollution-control devices must operate and maintain such devices in a manner consistent with good engineering practices.</p> <p>Note: This requirement applies to emission control devices on permitted sources as well as on sources that can be classified as exempt or trivial activities under 6 NYCRR Subpart 201-3.</p>

Guidelines

Examples of the types of records that can help in estimating the annual emissions from an emission source include materials throughput, chemical usage, fuel usage, the number of days per year, and hours per day the source was in operation. To document proper maintenance of emission control devices, inspection and maintenance records should be kept. These records should include, but not be limited to, the date of inspection, components checked, problems identified, parts repaired or replaced, and other corrective actions taken.

References

6 NYCRR Subpart 201-3, Exemptions and Trivial Activities

[BNL Title V Facility Permit](#)

[Exhaust Ventilation](#) Subject Area

[Title V Regulatory Requirements/Compliance Assurance Database, Environmental and Waste Management Services Division](#) web site

| [Go to Previous Page](#) | [Continue to Next Page](#) |

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/0i/0i02d011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)



Forms
Contact List
EWMS Instructions
Help Desk

Find Subject Areas:

[Show Side Menu](#) Search Subject Areas & Legacy Documents:

Subject Area: *Non-Radioactive Airborne Emissions*

3. Decommissioning Existing Sources of Airborne Emissions

Effective Date: **March 1999**

Point of Contact: [Environmental Subject Matter Expert](#)

Applicability

This information applies to Line Managers who are responsible for existing equipment and/or operations that generate non-radioactive airborne emissions.

Required Procedure

In cases where a BNL supplier or contractor performs the work described within this procedure, the Line Manager must communicate these requirements to the supplier or contractor and ensure that they are followed.

Step 1	Line Managers who are responsible for emission sources with existing operating permits notify the Environmental Compliance Representative of plans to decommission permitted emission sources.
Step 2	After the emission source has been decommissioned, the Line Manager or the ESH Coordinator makes arrangements for the Environmental Compliance Representative to inspect the source in order to confirm and document that the source has been decommissioned.
Step 3	After an emission source is decommissioned, the Environmental and Waste Management Services Division (EWMSD) requests NYSDEC to remove all references to the decommissioned source in the next modification to BNL's Title V Facility Permit or when the permit is renewed.

References

[BNL Title V Facility Permit](#)

| [Go to Previous Page](#) |

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/0i/0i03d011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)

[Forms](#)[Contact List](#)[SBMS Instructions](#)[Help Desk](#)**Find Subject Areas:**

Index



Categories



Alpha

[Show Side Menu](#)Search Subject Areas & Legacy Documents:

Subject Area: **Non-Radioactive Airborne Emissions**

Emission Source Modification Form

Effective Date: **March 1999**Point of Contact: [Environmental Subject Matter Expert](#)

The Emission Source Modification Form is provided as a [PDF](#) file.

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/0i/0i03e011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)

Emission Source Modification Form

Department/Division: _____ Building Number: _____

Permit Identification No. (if applicable):

Brief Description of Modifications to Equipment/Operation:

Date of Proposed Modifications to Equipment/Operation:

Identify Changes to the Following (as applicable)

1. Maximum number of hours per day equipment/operation will be used:

2. Maximum number of days per year equipment/operation will be used:

3. Materials/Chemicals to be used Estimated Quantity (Volume or Weight/Unit Time)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Are New Material Safety Data Sheets (MSDS) attached? Yes ___ No ___

Describe Changes to Emissions Control Devices: _____

Completed by: _____ Date: _____

Return completed forms to the Environmental Subject Matter Expert.

EC5020.04



Forms

Contact List

SBMS Instructions

Help Desk

Find Subject Areas:

Index



Categories



Alpha



Show Side Menu

Search Subject Areas & Legacy Documents:

Subject Area: *Non-Radioactive Airborne Emissions*

Non-Radioactive Emission Source Inventory Form

Effective Date: **March 1999**

Point of Contact: [Environmental Subject Matter Expert](#)

The Non-Radioactive Emission Source Inventory Form is provided as a [PDF](#) file.

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/0i/0i01e011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)

Emission Source Modification Form

Department/Division: _____ Building Number: _____

Permit Identification No. (if applicable):

Brief Description of Modifications to Equipment/Operation:

Date of Proposed Modifications to Equipment/Operation:

Identify Changes to the Following (as applicable)

1. Maximum number of hours per day equipment/operation will be used:

2. Maximum number of days per year equipment/operation will be used:

3. Materials/Chemicals to be used Estimated Quantity (Volume or Weight/Unit Time)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Are New Material Safety Data Sheets (MSDS) attached? Yes ___ No ___

Describe Changes to Emissions Control Devices: _____

Completed by: _____ Date: _____

Return completed forms to the Environmental Subject Matter Expert.

EC5020.04


[Forms](#)
[Contact List](#)
[EWS Instructions](#)
[Help Desk](#)
Find Subject Areas:

[Show Side Menu](#)

 Search Subject Areas & Legacy Documents:

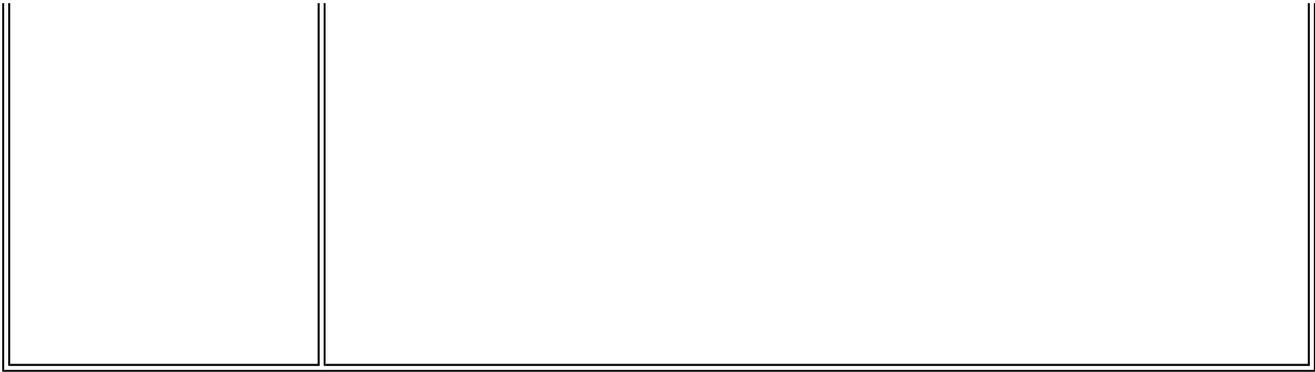
Definitions: Non-Radioactive Airborne Emissions

 Effective Date: **March 1999**

 Point of Contact: [Environmental Subject Matter Expert](#)

Term	Definition
airborne emissions	Air contaminants or pollutants emitted from a facility, equipment, process, activity, or source. An air contaminant or air pollutant is a chemical, dust, compound, fume, gas, mist, odor, smoke, vapor, pollen, or any combination there of.
Clear Air Act	The Clean Air Act and Clean Air Act (CAA) Amendments of 1990.
decommissioning	Actions taken to reduce or eliminate the potential public health and safety impacts of an emission source that has permanently ceased operations, including, but not limited to, actions to remove, demolish, or permanently render the source incapable of being reused.
emission point	Any conduit, chimney, duct, vent, flue, stack, or opening of any kind through which air contaminants are emitted to the outdoor atmosphere.
emission source	Any apparatus, contrivance or machine capable of causing emissions of any air contaminant to the outdoor atmosphere, including any appurtenant exhaust system, air cleaning device, or emission point. Where more than one apparatus, contrivance or machine is connected to a single emission point, their combination shall be considered a single air emission source.
emission unit	Any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant. An emission unit is represented as a grouping of processes for any one of the following: (i) a single emission point; or (ii) a group of emission points having one or more regulatory requirements in common; or, (iii) a facility-wide process that cannot be reasonably associated with one emission point.
modification	Any physical change, or change in the method of operation of an incinerator, stationary combustion installation, or process that

	<ul style="list-style-type: none"> • increases the hourly emission rate, emission concentration, or emission opacity of any air contaminant; or • involves the installation or alteration of any air cleaning installation, air cleaning device, or control equipment; or • involves the conversion of fuel used in any emission source to a fuel with a higher ash content than the fuel used prior to the change; or • involves the alteration of any furnace or other physical changes to allow burning of refuse or refuse-derived fuel with fossil fuel; or • results in the emission of any air pollutant not previously emitted or authorized under BNL's Title V Facility Permit. <p>Routine maintenance, repair and replacement of original equipment or parts thereof are not considered physical changes. An increase or decrease in the hours of operation is not considered a change in the method of operation if the total emissions do not cause air pollution or contravention of any applicable ambient air quality standard, and the hours of operation are not restricted through a condition of permit or certificate issued for the air contamination source.</p>
<p>pollution control device</p>	<p>Any method, process or equipment, which removes, reduces or renders less noxious air contaminants discharged into the outdoor atmosphere.</p>
<p>process</p>	<p>Any activity involving one or more emission sources that emits or has the potential to emit any federal or state regulated air pollutant.</p>
<p>Title V Facility Permit</p>	<p>A single permit issued by the Commissioner of the New York State Department of Environmental Conservation (NYSDEC) to Brookhaven National Laboratory (BNL) on January 14, 2002 and that was subsequently amended on November 19, 2002. The Title V Facility Permit covers all BNL operations and activities that are subject to applicable requirements found in state or federal regulations promulgated under the Clean Air Act or Clean Air Act Amendments of 1990. All regulated operations and activities capable of causing contaminants to be released to the outside atmosphere, otherwise known as emission sources, are covered by one of the 13 distinct emission units identified in the Title V Facility Permit. The permit, administered by the NYSDEC, gives BNL permission to operate the existing emission sources listed in the permit. The permit contains conditions that require BNL source owners and/or operators to monitor source emissions, maintain records and submit periodic reports regarding the operation, inspection, maintenance, and monitoring of the emission sources and/or associated pollution control equipment to the NYSDEC. The Title V Facility Permit also includes a condition requiring BNL to demonstrate compliance with all terms and conditions of its permit by submitting a certification of compliance on an annual basis.</p>



[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/Oi/Oi00I011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)


[Forms](#)
[Contact List](#)
[EWS Instructions](#)
[Help Desk](#)
Find Subject Areas:

[Show Side Menu](#)

 Search Subject Areas & Legacy Documents:

Revision History: Non-Radioactive Airborne Emissions

 Point of Contact: [Environmental Subject Matter Expert](#)

Revision History of this Subject Area

Date	Description	Management System
August 2004 -- Minor Rev. 1.3	<p>The subject area was revised to include text allowing line managers to submit a Non-Radioactive Emission Source Inventory Form or equivalent information on new emission sources. In the sections Start-Up of New Equipment and/or Operations that Produce Airborne Emissions and Requirements for Operating Existing Equipment or Modifying Operations that Produce Airborne Emissions, Line Managers are now required to complete and return a Non-Radioactive Airborne Emission Source Inventory Form or an Emission Source Modification Form to the Environmental Subject Matter Expert if certain criteria are met during the work planning process, the Experimental Safety Review process, or if exhaust ventilation equipment must be installed to protect workers from inhalation exposure to airborne emissions. A link to the Exhaust Ventilation Subject Area was added. BNL's Title V Facility Permit was included as a reference in the subject area. A link to the Title V Regulatory Requirements/Compliance Assurance Database was added as a tool to assist line personnel responsible for day-to-day operations of emission sources in complying with the various regulatory requirements.</p>	Environmental Management System

	<p>The Emission Source Modification Form was updated. The NYSDEC Operating Permit Application Information Sheet was deleted and combined with the Non-Radioactive Emission Source Inventory Form.</p> <p>Definitions for "Clean Air Act," "pollution control device," "emission unit," "process," and "Title V Facility Permit" were added.</p>	
March 1999	This subject area replaces SEAPPM 6.1.4 and ES&H Standard 6.1.5.	Environmental Management System

[Back to Top](#)

The only official copy of this file is the one online in SBMS. Before using a printed copy, verify that it is the most current version by checking the document effective date on the BNL SBMS website.

1.3-082004/standard/Oi/Oi00a011.htm

Send a question or comment to the [SBMS Help Desk](#)
[Disclaimer](#)