Facility Organization Energy, Environment and National Security (EENS) Directorate

Process Name: Activities associated with EENS operations

Approved by: Linda Bowerman

Date: 5/8/08

EENS Significant Aspects, Rev 16

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			ENVIRONMENTAL ASPECTS																		
Bldg	ACTIVITY DESCRIPTION / Title	PAF ID#	Regulated Industrial Waste	Hazardous Waste	Radioactive Waste	Mixed Waste	TRU Waste	Regulated Medical Waste	Atmospheric Discharges	Liquid Discharges	Storage or Use of Chemical (C) or Radioactive Material (R)	Water Consumption	Power Consumption	Historical Monuments / Cultural Resources	Sensitive/Endangered Species and Sensitive Habitats	Env. Noise	Historical Contamination	Soil Activation	Engineered Nanomaterials	Other Compliance Requirements (Asbestos floor tiles in buildings)	Comments
Research Related Activities:																					
Various	Experimental Research Projects		a	a	a	a			x	b,x	a,b,c,f,x	x	x						a		All aspects do not correlate to each experiment. Specific aspects associated with each experiment are identified on the ESR database.
Industrial Type Processes:																					
815, 490D	Staff Shops		a	a							f										
490A&D, 830, 815, 526	Small Scale Glassware Cleaning Operations	209	a	a	a					x	f										
Facility Related Issues - Historic:																					
130, 197, 490A, 526, 815, 830,	Historic building issues:										e						a			a	Historical issues associated with EENS buildings addressed in Section 9 of FUAs.
Facility Related Issues - Operational:																					
830	Storage/ Former Hot Cells	581	a	a	a	a			a,b		a,f						a				The West cell is not operational, but used for storage. The East Cell used for experimental work covered under ESRs. Historical issues associated with cells covered in FUA.
801	Metallurgy Hot Cell	581			a	a					f,x						a				Hot cell is not in use.
All	Operations (Work covered by work permits)		a	a	a	a			b	x	a,b,c,f,x	x	x								Occasional work assessed via Operational Work Planning. Each work permit may have some, none, or all of the aspects identified
526, 830	Storage Areas permitted under SCDHS Art. XII (See FUA Table 4.1.5 for details)	208									a										
750A	RAP Program			a							c,f										
Miscellaneous:																					
Various	Administration/Paper Studies											x	x								

Note: If the aspect is not present, leave the cell blank. If the aspect is present but does not meet the significance criteria listed in the exhibit, "Criteria for Significant Environmental Aspects," put an "X" in the cell. If the aspect meets significance criteria listed in the exhibit, enter the letter designation for one or more of the applicable criteria in the cell.

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Changes, Rev 5:
Experimental Research Project:
-Added an "x" under Atm. Discharges to represent non-significant discharges from hoods.
-Removed "a" & "c" under Liquid Discharges. These aspects were associated with the discharge of the gamma pool. This project has been completed.
-830 Storage/ Former Hot Cell: Added "a" & "b" under atmospheric discharges to represent HEPA filtered emissions exhausting through the HFBR stack, which is covered by NESHAPs permit #BNL-288-01.
-801 Metallurgy Hot Cell:
-Added "a" & "b" under atmospheric discharges to represent HEPA filtered emissions exhausting through the HFBR stack, which is covered by NESHAPs permit #BNL-288-01.
-Added "f" under Chem/Rad Storage to represent minor spill potential associated with the storage of chemicals/radioactive material in the cells.

Changes, Rev 6:
-Added potential waste significant aspects, and PAF ID#581 to 801 Hot Cell. Also expanded notes.
-Added notes to Asbestos Activity to explain that this process is currently on standby and not operating.
-Removed footnote 5 regarding Phase II corrective actions, as the corrective actions have all been closed.
-Added B. 555 to Glassware Cleaning Activity. Also added Rad Waste as a significant aspect, and note explaining what aspect refers to. Removed PAF#299 reference, as it has been combined into PAF #209.
-Removed 901W from PCB aspect, as we do not own this area and have no responsibility.

Changes, Rev 7:
-The activities "PCB Equipment Storage, Bldg 480" and "Asbestos Research Program" have been removed. All the PCB articles in B. 480 have been disposed of, and the Asbestos Test Facility has been decommissioned.
-There are no longer any PCB articles on EENS's inventory and no research involving asbestos.
-Updated the activity "Facility Review Project (FRP)" based on issues closed: Removed the waste aspects, and also removed "a" under Atmospheric, "e" under Storage or Use, and "a" under Soil Activation.

Changes, Rev 8:
Significant changes.

Changes, Rev 9:
-Rev # and date change
-Backflow Devices removed as a separate activity and subsumed into experimental research projects. This is done because the aspect applies to sink faucets in labs that are part of experimental work and monitored via Tier I inspections.
-Photography Developing is marked as inactive.
-Bldg. 830 is added onto the activity for Art. XII registered storage areas

Changes, Rev 10:
Minor editorial changes in comments section.

Changes, Rev 11:
Minor editorial changes in comments section.

Changes, Rev 12:
Bldg. 703 laser work terminated and Bldg 937 turned over to EP. Bldg. 487 added (new facility

Changes, Rev 13:
Removed 703 active operations

Rev. 14;
Added nanomaterial work under "Other" sign. aspect.

Rev. 15
Added RAP Program under Facility Related Issues
Removed 703 from Historic Facility Related Issues

Rev. 16:
Removed PAF ID# for closed PAF's
Moved PAF # 208 from Industrial Type Processes to Facility Realted Issues - 526 Storage Areas
Removed Atmospheric Discharges from Staff Shops Aspects
Removed B487 Rad Waste and Soil Activation from Aspects
Moved projects involving nanomaterials from "Other Aspects" to "Engineered Nanomaterial Aspect"
Added Bldg 490 to Laser Systems Activity
Added Bldgs 815 & 526 to Small Scale Glassware Cleaning
Modified aspects for Industrial Processes (Staff Shops & Sm. Scale Glassware Cleaning
Modified aspects for Facility Related Issues (830 & 801 Hot Cells & Operations - All Bldgs)

Aspect Key:

Any generation of the below waste streams will be coded with an "a":

Industrial Waste
Hazardous Waste
Radioactive Waste
Mixed Waste
Medical Waste

Atmospheric Discharge

a: Any process that requires a point source air permit or inclusion in the Title V permit as an emission unit, or contributes to a regulated emission point.
b: Operations or activities that use engineering controls to reduce hazardous air pollutant or radionuclide emissions.

Liquid Discharge

a) Radionuclides that are detectable at the point of discharge from the facility.
b) Discharges of any of the chemicals listed on the BNL State Pollutant Discharge Elimination System (SPDES) Permit Chemicals exhibit.
c) Operations or activities that use engineering controls to reduce the quantity or concentration of pollutant.
d) Existence of underground injection control devices under the responsibility of the owner organization as specified in the Underground Injection Control subject area.

Chemical Storage/Use or Radioactive Material

a) Storage or use of chemicals or radioactive materials requiring engineering controls specified in the Storage and Transfer of Hazardous Materials subject area.
b) System configuration requires back-flow prevention in accordance with the protection of the Drinking Water subject area.
c) Transportation of chemicals or dispersible radioactive materials.
d) Storage or use of PCBs as specified in the Oils/PCB Management subject area.
e) Any underground pipes or ducts that contain chemical and/or radioactive material/contamination.
f) Storage or use in quantities capable of resulting in a spill, as defined in the Spill Response Subject Area.

Water Consumption

a) Total organization waste consumption greater than 650,000 gallons per day
b) Continuous (24/hrs/day), permanent (to continue for the foreseeable future) once-through water use grater than 4 gpm that discharges to the sanitary sewer system.
c) Daily (8 hrs/day), permanent, once-through water use greater than 10 gpm that discharges to the sanitary sewer system.
d) Continuous use greater than 10 gpm, or daily use greater than 15 gpm for a period greater than 60 days that discharge to the Sanitary Sewer System.

Historical Contamination

a) Pre-existing contamination (radiological or nonradiological) causing remedial activities resulting in costs in excess of $50,000.

Soil Activation

a) Any soil activation.

Engineered Nanomaterials

a) Any air, liquid, or solid waste discharge of engineered nanomaterals.

Other

a.) Asbestos-containing floor tiles in bldgs.
b.) FRDP "Significant Finding"