NSLS-II Significant Environmental Aspects matrix **Reviewed and Approved - Steven Hoey - 05Jun2009**

ACTIVITY DESCRIPTION		Environmental Aspects																	
		Regulated Industrial Waste	Hazardous Waste	Radioactive Waste	Mixed Waste	Regulated Medical Waste	Atmospheric Discharges	Liquid Discharges	Chemical (C) Storage/Use	or Radioactive Material (R)	Water Consumption	Power Consumption	Historical Monuments / Cultural Resources	Sensitive/Endangered Species and Sensitive Habitats	Env. Noise	Historical Contamination	Soil Activation	Comments
Title	Number								C	R								
Vibrating Wire R&D	PSRF		a								x	x						Bld 902 annex
Vacuum R&D	PSRF	a	a				a				x	x						Bld 905: Title V identified air emissions associated with the beam chamber ozone cleaning operation.
RF R&D	PSRF											x						Bld 902B
Girder R&D	PSRF											x						Bld 902 annex and 905
Power Supplies R&D	PSRF										x	x						Bld 902B room 36 and 902 high bay
Diagnostics & Instrumentation	PSRF											x						Bld 902B
Dipole Mapping	PSRF											x						Bld 902 annex
Corrector Magnet	PSRF											x						Bld 902 high bay and annex
Vertical Test Facility (VTF)	PSRF						x					x						Bld 902 high bay; chemical storage refers to use of LHe and LN2
Petra-7	PSRF								x			x						Bld 832 lab 2
Thin Film	PSRF	a	a				b	b	f			x						Bld 703 lab E2/E4
Interlocks	PSRF											x						Bld 902B room 36
Metrology	PSRF		a									x						Bld 703 lab E5
Crysal Cutting/Lapping	PSRF	a					x	x	f		x	x						Bld 703 lab E10
Administration											x	x						

Notes:

1. A blank cell indicates that the aspect is not present.
2. An x in a cell indicates that the aspect is present, but is not significant.
3. A letter other than x indicates that the aspect is significant.
   (The letter refers to the specific criteria for the aspect which has been met.)
   See Key:

R&D Program

NSLS-II R&D programs are reviewed under Project Safety Review Forms (PSRF), which is the work planning document used to determine/document Significant Environmental Aspects. The ECR is involved in this review.

Review Guidance

Definitions are taken directly from the "Environmental Aspects and Impacts" Subject Area

Any generation of the below waste streams will be coded with an "a":
Industrial Waste, Hazardous, Radioactive , Mixed, Medical Waste, Transuranic

Work with Engineered Nanomaterials:
a) Any work with engineered nanomaterial. Refer to the interim procedure Approach to Nanomaterial ESH in the Interim Procedures Subject Area.

Engineered Nanomaterials:
a) Any air, liquid, or solid waste discharge of engineered nanomaterials.

Atmospheric Discharge
a) Any process that requires a point source air permit or inclusion in the Title V permit as an emissions unit, or contributes to a regulated emission point.
b) Operations or activities that use engineering controls to reduce hazardous air pollutant or radionuclide emissions.
c) Radioactive emissions that require monitoring (continuous or confirmatory) by 40 CFR 61 Subpart H of the National Emission Standards for Hazardous Air Pollutants (NESHAPS).

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.

Power Consumption
a) Total Organizational Power Consumption Greater than 58 M KWh/yr.

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.
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 organizational water consumption greater than 650,000 gal/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.

Facility-specific Aspects:
Historical/Cultural Resources
Sensitive/Endangered Species And Sensitivie Habitats
Environmental Noise
Historical Contamination (groundwater/soil)
Soil Activation
Other