

**PRINCETON PLASMA PHYSICS LABORATORY
ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)**

**APPENDIX B
SUMMARY OF LEGAL AND OTHER REQUIREMENTS**

REVISION 9

JANUARY 2017

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**Princeton Plasma Physics Laboratory
Environmental Management System
Summary of Legal and Other Requirements**

Regulation / Requirement	Title or Description	Lead Organization	Applicable Document(s)	Compliance Assessment
Department of Energy				
Contract DE-AC02-09CH11466, M080	Contract between Princeton University and the US Department of Energy to operate Princeton Plasma Physics Laboratory	Princeton University	Contract DE-AC02-09CH11466	Annual DOE PEMP Score Card & Report - December 2016
Federal Regulations				
10 CFR 835	Occupational Radiation Protection	HP Division	DOE approved PPPL Radiation Protection Program (RPP)	Assessment required every 3 years (May 2015)
10 CFR 1021	DOE National Environmental Policy Act Implementation Procedures	ES&H Department	ESH-014, EN-OP-007	Submittals of NEPA determination requests and/or documentation to DOE; latest NEPA review; DOE-SC & PSO Assessment (Feb 2016)
10 CFR 1022	Compliance with Floodplain/Wetlands Environmental Review Requirements	Env. Services Division	Bee Brook - Delineation of Floodway and Flood Hazard Area	ESH-014 - projects screened during NEPA review
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response	Env. Services Division	EM-OP-35, EM-OP-38, EM-TR-01, EM-TR-17	Quarterly monitoring; Annual training for HAZWOPER personnel
29 CFR 1926	OSHA Asbestos Standards	Env. Services Division	EM-OP-01, EWM-005	Each instance of asbestos removal
33 CFR 320-323, 330 and 352	Corps of Engineers Regulations for Protection of Waters of the U.S. and Nationwide Permit Program	Env. Services Division	NJDEP Letter of Interpretation: Line verification (Apr. 2008)	ESH-014, NEPA Review; Line verification extended to 2014 - applying for renewal in 2015
40 CFR 50-88	Chapter 1, Subchapter 2, Air Programs	Env. Services Division	PPPL Air Certificates, EWM-007, EM-OP-45	USEPA Multi-media Inspection and NJDEP Air Inspection (Mar. 2011); Annual emissions PTE calculations (Jan. 2016); PPPL compliance assessments
40 CFR 61	Subpart H, National Emission Standards for Emissions of Radionuclides Other Than Radon From DOE Facilities	HP Division	ESHD 5008 Section 10 Subpart P; PPPL Environmental Monitoring Plan Section 6	Annual submittal to EPA via DOE (June 2016), based on D-Site stack measurements and use of EPA approved dose assessment code
40 CFR 61	Subpart M, National Emission Standard for Asbestos and Subpart F, Appendix A	Env. Services Division	EM-OP-01, EM-OP-15	Each instance of asbestos removal
40 CFR 63	Subpart JJJJJ, National Emission Standards for Hazardous Air Pollutants for Source Categories	Env. Services Division	Biennial Compliance Statement to EPA. Annual emissions statement (online) to NJDEP. Energy Assessment for boiler operations only required if fuel oil is use. Primary boiler fuel is natural gas.	Annual & Biennial Notification of Compliance (Boiler Adjustments), Feb. 2016 . PPPL compliance assessment
40 CFR 82	Protection of Stratospheric Ozone, Subparts A, D, F, G & H	Env. Services Division	P-062, EWM-007	Annual Inventory of ODS Emissions (Nov. 2016), PPPL compliance assessment
40 CFR 110	Discharge of Oil	Env. Services Division	SPCC, GEN-006, ESH-013, EM-OP-35	SPCC Revision 5 (November 2016)

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40 CFR 112	Oil Pollution Prevention; Spill Prevention, Controls and Countermeasures	Env. Services Division	SPCC Plan, EM-OP-35	Inspections per SPCC implementing procedures, PPPL compliance assessment
40 CFR 122	NPDES System	Env. Services Division	NJDEP Surface Water Discharge Permit NJ0023922 (EDP Oct. 1, 2013), EM-OP-31	Monthly review against discharge limits, Annual NJDEP inspection (Jun. 2016), USEPA Region 2 Multi-media Inspection (Mar. 2011), PPPL compliance assessment
40 CFR 131	Water Quality Standards	Env. Services Division	NJDEP Surface Water Discharge Permit NJ0023923, (EDP Oct. 1, 2013)	Monthly review against discharge limits, Annual NJDEP inspection (6/16), USEPA Region 2 Multi-media Inspection (3/11), PPPL compliance assessment
40 CFR 136	Analysis Procedures	Env. Services Division	EM-OP-49, EM-QA-02	Annual proficiency tests, NJDEP OQA audit (May 2015), PPPL compliance assessment
40 CFR 141-143	EPA Primary and Secondary Drinking Water Standards	Facilities & Env. Services Divisions	Physical Connection Permit 0826 (NJ Am. Water Co.)	Quarterly inspection of back-flow preventers (2016); Facilities PM System, PPPL compliance assessment
40 CFR 243-256	Federal Agency Recycling Programs	Facilities & Env. Services Divisions	P-014, Waste Minimization, Annual Comprehensive Energy Data Report (CEDR)	Annual Sustainability Dashboard Report (Dec. 2016)
40 CFR 260, 261, 262, 265, 268 & 273	Hazardous Waste Implementing Rules (delegated to NJDEP)	Env. Services Division	EWM-001, EWM-004, EM-OP-03, EM-OP-04, EM-OP-05, EM-OP-06, EM-OP-07, EM-OP-11, EM-OP-15, EM-OP-28, EM-OP-48, EM-TR-17	Routine inspections per procedures, EPA & NJDEP Inspections, Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015), QA Audit 1603 (May 2016)
40 CFR 302	Designation, Reportable Quantities and Notification	Env. Services Division	ESH-013 & EM-OP-035 Notification of Non-Emergency Releases	ESD/IH review of hazardous substance listing
40 CFR 302.1 et. seq.	Comprehensive Environmental Response, Compensation & Liability Act (CERCLA/SARA)	Env. Services Division	Dynamac Corp., CERCLA Inventory Rept.	Biennial Report & Certification per N.J.A.C. 7:26C-E (May 2015)
40 CFR 355	Emergency Planning and Notification (SARA Title III)	Env. Services Division	Annual EPCRA Reporting; ESH-013 & EM-OP-035 - Notification of Non-Emergency Releases	IH-OP-21 (EPCRA Reporting), Feb. 2016
40 CFR 401.15	Toxic Pollutants	Env. Services Division	EM-OP-31	Quarterly Permit Update (Nov. 2016)
40 CFR 761, Parts 1-398	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions (Use, Disposal, Storage, Marking & Sampling of PCBs)	Env. Services Division	Annual memo to file (tracked in Enviance)	Annual memo to file, tracked in Enviance (Jul. 2016)
49 CFR 170-180	Hazardous Materials Regulations	Env. Services Division	EM-OP-06, EPIP, EM-OP-03, EM-OP-04, EM-OP-05, EM-OP-07, EM-OP-15, EM-OP-28, EM-TR-17	EM-OP-06 , Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015), QA Audit 1603 (May 2016)

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49 CFR 383, 390-399	DOT Vehicle Inspection	Env. Services Division	EM-OP-06	Each hazardous material or haz/rad waste shipment, Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015) ,QA Audit 1603 (May 2016)
49 CFR 397	Subpart D, Radioactive Materials Routing	Env. Services Division	EM-OP-06	Each radioactive waste shipment (Sept. 2014)
State Regulations				
N.J.A.C. 7	Environmental Regulations	Env. Services Division	EM-OP-42	Quarterly Permit Update (Feb., May, Aug.,
N.J.A.C. 5:23	Uniform Construction Code Subchapter 8. Asbestos Hazard Abatement Subcode	Env. Services Division	EWM-005, EM-OP-01	Each instance of asbestos removal
N.J.A.C. 7:1E	Discharge of Petroleum and Other Hazardous Substances	Env. Services Division	SPCC, GEN-006, ESH-013, EM-OP-35	Inspections per SPCC implementing procedures (November 2016), PPPL compliance assessment
N.J.A.C. 7:1G	Worker and Community Right-to-Know Regulations	Safety Division	Annual EPCRA Reporting, ESH-013	IH-OP-21 (EPCRA Reporting), Feb. 2016
N.J.A.C. 7:4	Procedures Concerning the New Jersey Register of Historic Places	Env. Services Division	Natural Resource & Cultural Mgt. Plan (2005)	ESH-014, latest NEPA Review
N.J.A.C. 7:5C	Endangered Plant Species Program	Env. Services Division	Baseline Ecological Evaluation, Amy S. Greene Environmental Consultants, Inc. (1998)	ESH-014, latest NEPA Review
N.J.A.C. 7:7A	Freshwater Wetlands Protection Act Rules	Env. Services Division	NJDEP Letter of Interpretation: Line verification (April 2008)	ESH-014, NEPA Review; Line verification extended to 2014. LOI Renewed in July 2015, expires April 1, 2018.
N.J.A.C. 7:9B	New Jersey Surface Water Quality Standards	Env. Services Division	NJDEP Surface Water Discharge Permit NJ0023922 (EDP Oct. 1, 2013), EM-OP-31, EM-OP-37	Monthly review against discharge limits, Annual NJDEP inspection (Jun. 2016), USEPA Region 2 Multi-media Inspection (Mar. 2011), PPPL compliance assessment
N.J.A.C. 7:9C	New Jersey Ground Water Quality Standards	Env. Services Division	Remedial Action Permit #130001, EM-OP-38	Biennial Remedial Certification (May 2015), PPPL compliance assessment
N.J.A.C. 7:10-10.6	Safe Drinking Water Act, Inspection & Testing Requirements	ES & Facilities Divisions	Physical Connection Permit 0826 (New Jersey Am. Water Co.)	Quarterly Inspection of back-flow preventers (Facilities PM System), Mar., May, Sept. and Dec. 2016
N.J.A.C. 7:11	New Jersey Water Supply Authority	ES & Facilities Divisions	Contract RBS-11D	Weekly water meter reading at canal pump house; Annual Water Use Registration Report (Jan. 2016), PPPL compliance assessment
N.J.A.C. 7:13	Flood Hazard Area Control	Env. Services Division	Bee Brook - Delineation of Floodway and Flood Hazard Area	100- and 500-year flood line drawn on PPPL site maps; ESH-014, latest NEPA Review

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N.J.A.C. 7:14 A	New Jersey Pollutant Discharge Elimination System	Env. Services Division	NJDEP Surface Water Discharge Permit NJ0023922 (EDP Oct. 1, 2013), EM-OP-31, EM-OP-37	Monthly review against discharge limits, Annual NJDEP inspection (Jun. 2016), USEPA Region 2 Multi-media Inspection (Mar. 2011), PPPL compliance assessment
N.J.A.C. 7:18	Regulations Governing Laboratory Certification and Environmental Measurements	ES&H Dept.	EM-OP-49, EM-QA-02, EM-OP-31, EM-OP-38	NJDEP Audit (May 2015); PPPL compliance assessment
N.J.A.C. 7:19	Water Supply Allocation Permits	Env. Services Division	2010 WUR 9600001	D&R Canal water withdrawal annual report (Jan. 2016)
N.J.A.C. 7:25	Endangered, Nongame, and Exotic Wildlife	Env. Services Division	Baseline Ecological Evaluation, Amy S. Greene Environmental Consultants, Inc. (1998)	ESH-014, latest NEPA Review
N.J.A.C. 7:26A	Recycling Rules	Facilities & Env. Services Divisions	P-014, Waste Minimization; DOE Sustainability Dashboard Report	Annual DOE Sustainability Dashboard Report (Dec. 2016)
N.J.A.C. 7:26C	Administrative Requirements for the Remediation of Contaminated Sites	Env. Services Division	Remedial Action Permit #130001	Biennial Remedial Certification (May 2015)
N.J.A.C. 7:26D	Remediation Standards	Env. Services Division	Remedial Action Permit #130001	Biennial Remedial Certification (May 2015)
N.J.A.C. 7:26E	Technical Standards for Site Remediation	Env. Services Division	Remedial Action Permit #130001, EM-OP-35	Biennial Remedial Certification (May 2015)
N.J.A.C. 7:26G	NJDEP, Division of Waste Management, Hazardous Waste Management	Env. Services Division	EWM-001, EWM-004, EM-OP-03, EM-OP-04, EM-OP-05, EM-OP-06, EM-OP-07, EM-OP-11, EM-OP-15, EM-OP-28, EM-OP-48, EM-TR-17	Each waste shipment, routine inspections per procedures, EPA, NJDEP Inspections, Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015), QA Audit 1603
N.J.A.C. 7:27	Air Pollution Control –Subchapter 8 Permits and Certificates	Env. Services Division	PPPL Air Certificates, EWM-007, EM-OP-045	USEPA Multi-media Inspection (Nov. 2011) and NJDEP Air Inspection (2011), PPPL Environmental-Air Audit, Annual emissions PTE calculations (Jan. 2016), PPPL compliance assessments
N.J.A.C. 7:28	Bureau of Radiation Protection	ES&H Dept.	ESHD 5008 Section 10 Subpart P; PPPL Environmental Monitoring Plan Section 6	2015 Annual Site Environmental Report published Sept. 2016; evaluation of stack and LECT release data.
N.J.A.C. 7:30	Pesticide Control Code	Facilities Division	NJDEP commercial pesticide license (M. King)	M. King License #111817550, 2016 license is current
N.J.A.C. 7:45	Regulations for the Review Zone of the Delaware and Raritan Canal State Park	Env. Services Division	D&R Canal Commission Certificate of Approval; Princeton Forrestal Center Phase I /II Drainage Master Plan; <60% developable land	Latest NEPA review process
N.J.A.C.16:25A	Soil Erosion and Sediment Control Standards	ES & Facilities Divisions	Permit #2014-0567 Chilled Water Line Replacement Project, ENG-024	Middlesex County Soil Conservation Service (Nov. 2014)

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Other Requirements				
EPA SW-846	Sampling Analysis Procedure for Physical/Chemical Characteristics of Solid Waste	Env. Services Division	EM-OP-02, EM-OP-09	Latest revision of applicable procedures, Triennial Packaging & Transportation Audit (Jan. 2015), QA Audit 1603 (May 2016)
NJDEP	Field Sampling Procedures Manual; Latest Edition	Env. Services Division	EM-OP-02, EM-OP-31, EM-OP-37 EM-OP-38	Each monthly/quarterly sampling event
Energy Solutions, Clive, UT	Energy Solutions Bulk Waste Facility Waste Acceptance Criteria, Rev. 9	Env. Services Division	OP-AD-115, EM-AD-19, EM-CP-21, EM-OP-06, EM-OP-15, EM-OP-07, EM-OP-09, EM-OP-27, EM-OP-28, EM-OP-32, EM-OP-39, EM-QA-20	Radioactive Waste Shipments (Sept. 2014), Internal Audit (Feb. 2014)
Stony Brook Regional Sewerage Authority (SBRSA) Service Rules	SBRSA Service Rules, Effective 2/2/2004	Env. Services Division	EM-OP-37	Quarterly letter (Jan., Apr., July, and Oct. 2016), PPPL compliance assessment
Presidential Executive Orders				
E.O. 13693	Planning for Federal Sustainability in the Next Decade	Env. Services Division	SSP, EnergyStar Portfolio Manager Reporting, CEDR, EM-OP-46, P-082	Site Sustainability Plan (SSP) & DOE Sustainability Dashboard Reporting, Dec. 2016
DOE Directives				
O151.1C	Comprehensive Emergency Management System	Site Protection Division	PPPL Emergency Plan, Emergency Protection Implementation Plans (EPIP's)	DOE Exercises & Assessments (Sept. 2013, Mar. 2014), regular emergency exercises and drills (Sept. 2015); Continuity of Operations & Emergency Readiness Assurance Plan (Oct. 2014)
O231.1B	Environment Safety & Health Reporting	Env. Services Division	2015 Annual Site Environmental Report (Sept. 2016), Remedial Action Permit #13001 (EDP Oct. 1, 2013), EM-OP-41, EM-OP-38	Annual Site Environmental Report (Sept. 2016); Remedial Action Certification (May 2015)
O410.2	Management of Nuclear Materials	HP Division	Procedure HP-MC-11	Submittals to DOE of Nuclear Material Inventory Assessment (NMIA) Report, Jan. 2015; Nuclear Materials Management Plan (NMMP), July 2015
O 414.1 D	Quality Assurance	QA Division	EM-AD-18, EM-QA-02, EM-QA-20	Latest revisions to EM-AD-18, Dec. 2014
O422.1	Conduct of Operations	Env. Services Division	EM-AD-18	Latest revisions to EM-AD-18, Dec. 2014
O435.1	Radioactive Waste Management	Env. Services Division	Radioactive Waste Program Basis Document, OP-AD-115, EM-AD-19, EM-CP-21, EM-OP-06, EM-OP-15, EM-OP-07, EM-OP-09, EM-OP-27, EM-OP-28, EM-OP-32, EM-OP-39, EM-QA-20	Radioactive Waste Shipments (Sept. 2014) , Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015), QA Audit 1603 (May 2016)

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O436.1	Departmental Sustainability	Env. Services Division	Site Sustainability Plan, DOE Sustainability Dashboard Report	Site Sustainability Plan (SSP) & DOE Sustainability Dashboard Report, Dec. 2016
O456.1	The Safe Handling of Unbound Engineered Nanoparticles	ES&H Dept., Safety Division, Env. Services Division	ESH-025, EM-OP-48	Laboratory for Plasma Nanosynthesis SAD & procedures, ACC startup review (Jun. 2016)
O458.1	Radiation Protection of Public and the Environment	HP & ESD Divisions	Env. Radiation Protection Plan, ESHD 5008 Section 10 Subpart P; PPPL Environmental Monitoring Plan Section 6	Annual Site Environmental Report (Sept 2016); evaluation of stack and LECT release data.
O460.1C	Packaging and Transportation Safety	Material Services Branch & Env. Services Division	On-site Transportation Safety Document, EM-OP-04, EM-OP-05, EM-OP-06, EM-OP-48, EM-OP-07, EM-OP-09, EM-OP-28; MC Policies & Procedures	Procedural reviews for each shipment, Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015), QA Audit 1603 (May 2016)
M 460.2-1A	Radioactive Material Transportation Practices Manual	Env. Services Division	EM-OP-06, EM-OP-07, EM-OP-09, EM-OP-28, EM-OP-32, EM-CP-21, EM-PP-21; MC Policies & Procedures	Procedural reviews for each shipment, Triennial Packaging & Transportation Audit (Jan. 2015), DOECAP Audit (May 2015), QA
O474.2	Nuclear Material Control and Accountability	HP Division	HP-PP-06	Biennial internal assessments July 2015), biennial DOE Safeguards & Security surveys Dec 2015)
Voluntary Programs				
	US EPA Federal Green Challenge	Env. Services Division	Site Sustainability Plan (SSP) & DOE Sustainability Data reported through EPA RETRAC portal	Site Sustainability Plan (SSP), DOE Sustainability Dashboard & RETRAC, Dec. 2016
	NJDEP Environmental Stewardship Program	Env. Services Division	NJDEP Stewardship Program Checklist (reviewed Jan. 2015)	Verified at NJDEP compliance inspection (Jun. 2016)
	US EPA Waste Wise	Env. Services Division	Site Sustainability Plan (SSP) & DOE Sustainability Data reported through EPA RETRAC portal	Site Sustainability Plan (SSP), DOE Sustainability Dashboard & RETRAC, Dec. 2016
	US EPA Food Recovery Challenge	Env. Services Division	Site Sustainability Plan (SSP) & DOE Sustainability Data reported through EPA RETRAC portal	Site Sustainability Plan (SSP), DOE Sustainability Dashboard & RETRAC, Dec. 2016
	EPEAT Purchasing Program	Env. Services Division	Green Electronics Council (http://www.epeat.net/)	Site Sustainability Plan (SSP), DOE Sustainability Dashboard and Green Electronics Council reporting portal, Dec.