

**STRATFORD ARMY ENGINE PLANT
FACT SHEET
STEWARDSHIP PERMIT**

I. Name and Address of Applicant:

U.S. Army
Stratford Army Engine Plant
550 Main Street
Stratford, CT 06615
EPA ID No. CTD001181502

II. Facility Type:

The Stratford Army Engine Plant (SAEP) is a facility that formerly treated, stored, or disposed of RCRA hazardous wastes, and applied for a Resource Conservation and Recovery Act (RCRA) Permit through the submittal of a RCRA Part A permit application.

This is a RENEWAL of PERMIT No. DEP/HWM/CS-134-003 issued on October 2, 2008.

III. Purpose of Permit:

The purpose of a Stewardship Permit is to require the completion of investigation, remediation, and long-term stewardship requirements including monitoring of environmental conditions, engineered controls, and institutional controls, as applicable. The permit requires financial assurance and public participation in final remedy decisions. The Stewardship Permit ensures that the sitewide environmental remedy remains effective into the future.

IV. Statutory and Regulatory Basis of Permit:

The issuance and conditions of this permit are based upon the Regulations of Connecticut State Agencies (RCSA) adopted pursuant to Connecticut General Statutes (CGS) Section 22a-449(c), and upon the provisions of CGS Sections 22a-6 as applicable. The Connecticut Hazardous Waste Management Regulations incorporate by reference with changes the federal RCRA hazardous waste regulations. These federal regulations include the technical and administrative standards for hazardous waste facilities as identified by Title 40 of the Code of Federal Regulations (CFR) Parts 264 and 270.

Pursuant to RCSA Section 22a-449(c)-104(a)(2)(O), incorporating with changes 40 CFR 264.101, an owner or operator seeking a permit for treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents at the facility, regardless of the time such release occurred or the origin of the release. The permit contains a schedule of compliance for any corrective action which has not been completed prior to issuance of the permit and assurances of financial responsibility for completing such corrective action.

V. Description of Facility:

The facility is located at 550 Main Street in Stratford on three parcels of land totaling 124-acres that are bounded to the north by a paved parking lot and wetlands, to the east by the Housatonic River, to the west by a hangar building, the Sikorsky Memorial Airport, small businesses and Frash pond, and to the south by an open field, a drainage channel, and small businesses. The 124-acres is comprised of approximately 76-acres of developed land that once incorporated at least forty-nine buildings, paved

roadway and grounds, and five paved parking lots. The remaining 48-acres of land consist of riparian rights.

SAEP submitted a RCRA Part A Application for a storage and disposal facility for hazardous wastes on November 29, 1980.

From 1951 to 1997 SAEP engaged in the development, production and testing of airplane, helicopter and tank engines; and re-entry vehicles for Intercontinental Ballistic Missiles and for the space program. SAEP performed the following activities at the facility: machining, electro-chemical machining, electroplating, corrosion resistance (anodizing, chemical conversion coatings, HAE anodic finish, black coating, steel passivation, painting, oil slouching and plasma spray), cleaning, engine testing, maintenance activities.

In addition, SAEP engaged in on-site wastewater treatment and stored the following on-site generated wastes: radioactive wastes (thorium), oils, coolants, cyanide-bearing plating solutions, acids (e.g., chromic, sulfuric, nitric, hydrofluoric and hydrochloric), chlorinated solvents (e.g., 1,1,1-trichloroethane), freon-based solvents, non-chlorinated solvents (e.g., Varsol, methyl ethyl ketone, thinners), alkaline cleaners (e.g., permanganate salts and sodium hydroxides), degreasing agents (e.g., 1,1,1-TCA), alkaline solutions (e.g., sodium hydroxide, sodium nitrate), and paints and epoxies.

VI. Closure of the Hazardous Waste Management Units:

Radioactive Wastes (thorium alloy) were generated at the facility as part of engine production and the production and testing of missile components. These activities were regulated under several U.S. Nuclear Regulatory Commission (NRC) licenses. Possession and use of the material was discontinued in the 1970s and the instruments were tested and evaluated per NRC requirements. In a letter dated July 14, 1999 the NRC indicated that all portions of the facility except the Causeway may be released for unrestricted use.

In accordance with RCRA Section 22a-449(c)-104, SAEP is required to close the facility and submit a closure plan developed in accordance with the requirements of RCRA Section 22a-449(c)-104(a)(1) incorporating 40 CFR 264 Subpart G for the Commissioner's review and written approval.

This closure plan will address the following hazardous waste management units, also referred to as Areas of Concern (AOC): 1) AOC-2 Hazardous Waste Accumulation Tanks; 2) AOCs-12 and 53 Hazardous Waste Container Accumulation Areas; 3) AOC-13 Container Storage Area; 4) AOC-14 Container Storage Areas A and B; and 5) AOC-15 Sludge Roll-off Area. In addition, the closure plan will include: a description of the specific materials stored; activities performed; the removal of any remaining wastes; decontamination; the testing of components, structures and soils; and the removal of any contaminated structures or equipment and their off-site disposal.

VII. Corrective Action and Long-Term Stewardship Obligations:

In accordance with RCRA Section 22a-449(c)-104, SAEP is required to perform post-closure care of the closed land disposal units and submit a revised post-closure care plan developed in accordance with the requirements of RCRA Section 22a-119(c)-104(a)(1) incorporating 40 CFR 264 Subparts F, G, and K for the Commissioner's review and written approval

Pursuant to RCRA Section 22a-449(c)-104(a)(2)(O) (corrective action for solid waste management units) an owner or operator seeking a permit for the treatment, storage or disposal of hazardous waste (i.e., an interim status facility) must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents at the facility, regardless of the time such release occurred or the origin of the release. Such corrective action must be completed before permit issuance or included in the permit if not completed.

Appendix I of this fact sheet includes a list of the Areas of Concern for the site and Appendix II of this fact sheet contains a historical list of the documents submitted to the Department with regards to corrective action.

VIII. Available Materials:

Materials available for inspection with respect to this permit include:

- A. The Permit Application;
- B. The Draft Stewardship Permit;
- C. The Notice of Tentative Determination for the Draft Stewardship Permit;
- D. This Fact Sheet

These materials are available on the Department's Public Notice webpage:
[https://portal.ct.gov/DEEP/Public-Notices/Public-Notices-Proposed-Actions---Opportunity-for-Comment/Proposed-Individual-Permits.](https://portal.ct.gov/DEEP/Public-Notices/Public-Notices-Proposed-Actions---Opportunity-for-Comment/Proposed-Individual-Permits)

Questions may be directed to the contact identified in the Notice of Tentative Determination.

APPENDIX I

STRATFORD ARMY ENGINE PLANT SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

Area of Concern No.	Description
1 and 2	Oil House Tank Farm (13 above ground storage tanks)
3	Hazardous Waste and Waste Oil Transfer Systems Between Buildings 13 and 15
4	Building 16 Floor Drains, Sumps and Piping
5	Storm Water Collection Lines
6	OATP in Building 64-2
7	Oil/Alum Tank
8	Chemical Waste Treatment Plant Collection System, Pump Station (building 63) and Associated Piping
9	Chemical Waste Treatment System Cyanide Destruction Facility (Building 70)
10	Chemical Waste Treatment Plant in Building 18
11	Chemical Waste Treatment Plant Solids Handling Area in Building 71
12 and 53	Container Accumulation and Drum Staging Area Between the Former Oil House Tank Farm and Building 37
13	Original Container Storage Area
14	Container Storage Areas A And B (South of Building 18)
15	Sludge Roll-off Container Area (North of Building 71)
16	Metal Chips Oily Sump (Northwest corner of Building 13)
17	Soil Pile, South Parking Lot Fill Area
18	Equalization Impoundment (Lagoon #1)
19	Sludge Drying Beds (Lagoon Nos. 2, 3, 4)
20	Causeway
21	Building 65 Area (Previous Location of Buildings 52 and 55)
22	Waste Paint Tank Located Between Buildings 2 and 3
23	Building 19 Dry Well
24	Discharge to the Housatonic River at Outfall-007
25	Outfall-008 and Drainage Ditch
26	Building 2 Historic Septic Tank
27	Building 58 and Associated Satellite Accumulation Areas
28	Building 15 and Associated Accumulation Areas
29	Building 48 and Associated Satellite Accumulation Areas
30	Building 34 and Associated Satellite Accumulation Areas
31	Building 6 and Associated Satellite Accumulation Areas
32	Building 5 and Associated Satellite accumulation Areas
33	Building 19 and Associated Satellite Accumulation Areas
34	Building 3A and Associated Satellite accumulation Areas
35	Building 43 and Associated Satellite Accumulation Areas
36	Building 12 and Associated Satellite Accumulation Areas
37	Building 10 and Associated Satellite Accumulation Areas
Area of Concern No.	Description
38	Building 2 Former Underground Storage Tanks
39	Building 4 Former Brine Underground Storage Tank

40	Building 6 Former Underground Storage Tanks
41	Building 9 Former Underground Storage Tanks
42	Building 9 Underground Storage Tanks
43	Former Underground Storage Tank at Building 18
44	Building 19 Former Underground Storage Tanks
45	Jet Fuel tank Farm Former Underground Storage Tanks
46	Building 52 Former Underground Storage Tank
47	Building 73 Radioactive Waste Storage Area
48	Building 16 and Associated Satellite Accumulation Areas
49	Building 2 Manufacturing Areas
50	Building 2 Plating Area
51	Building 3 Plating Area
52	Facility Outfalls-001 through -006 and the Intertidal Flats
54	Building 17
55	Building 72 and Associated Petroleum Storage Tanks
56	Research and Development Area in Northern Buildings 3, 3A and 4
57	Drum Storage Area East (North) of Building 19
58	Scrap Metal Yard North of Building 16
59	Building 4 Drum Storage Area
60 and 61	Building 6A Waste Oil Rags and Waste TPC and Oil (Satellite Accumulation Areas)
62 and -	Building 7 Waste Oil Satellite Accumulation Area and Building 7/7A Drains
63 and 64	Building 8 Flammable Storage Area (Paints and Solvents) and Building 8 Waste Paint Satellite Accumulation Area
65 and 67	Building 19 Above Ground Storage Tanks North of Building
68 and 69	Building 19 Above Ground Storage Tanks Northwest of Building
70 and 72	Above Ground Storage Tanks Near Building 44
73	Fuel, Lubricating and Hydraulic Oils near Building 69
74 and 75	PCB Transformers in Buildings 2 and 3
	Former Chemical Storage and Scrap metal Reclamation (B-13)
	Container Storage Pad and Collection Trench (Northeast of Building 13)
	Magnesium-Thorium Scarp Yard Between Buildings 13 and 44
	Open Storage Area Between Buildings 16 and 74
	Former Gasoline Underground Storage Tanks Near Building 10
	Building 53 and Associated Fuel Storage Areas
	Building 9 Floor Drains
Area of Concern No.	Description
	Above Ground Storage Tanks Southeast of Building 16 (aka Building 33 and associated above ground storage tanks)

	Former Pits or Lagoons – North Parking Lot
	Shed North of Building 12 Used to Store Cuttings
	PCB-containing Oil in Vicinity of Sump near Pump House 38
	Fill Areas
	Hot Spots
	Site-wide Baseline Condition

APPENDIX II

HISTORICAL LIST OF DOCUMENTS SUBMITTED TO THE DEPARTMENT

ADMINISTRATIVE RECORD DOCUMENT LIST

TITLE	AUTHOR	DATE Month/Year
Draft Feasibility Study – SAEP	US Army ACSIM – NCRFO	May-05
Final Remedial Investigation Survey Report – SAEP (Vol. I to IV)	US Army ACSIM – NCRFO	Sep-04
NCRA Causeway Surface Design Phase I & II (Appendices I, II, VI to XI)	Weston Solutions	Aug-03
SAEP FOSL BRAC Determination of Availability	US Army ISMA	May-03
NCRA Causeway Surface Design Phase I & II	Weston Solutions	Apr-03
Remedial Investigation (Vol. I & II) Text & Maps	Harding ESE	Jan-03
Causeway: Basis of Design – Non-time Critical Removal Action 100% Phases I & II (Vol. I, II & III)	Harding ESE	Aug-01
Causeway & Dike – Final Decision Document Non-time Critical Removal Action	Harding ESE	Jan-01
EE/CA OU2 Source Area	Harding-Lawson Associates/ Foster Wheeler	Nov-00
Pilot-Scale Treatability Study Report for Chromium & VOC Groundwater OU2 EE/CA – Final	Harding-Lawson Associates/ Foster Wheeler	Oct-00
Causeway & Dike – Final Engineering Evaluation & Cost Analysis	Harding-Lawson Associates/ Foster Wheeler	Sep-00
Remedial Investigation (Vol. 1 to 9)	URS Grenier/Woodward-Clyde	Sep-00
Causeway: ALAEA Remedial Action Plan for SAEP Causeway & Radiation Final Status Survey	Honeywell	Jul-00
Groundwater OU2 NCRA Pre-design Investigation Report – Final (Vol. I & II)	Harding-Lawson Associates/ Foster Wheeler	May-00
Causeway & Dike – Pre-design Investigation Report NCRA Final with Addendum	Harding-Lawson Associates/ Foster Wheeler	Apr-00
Geotech Investigation Summary Causeway NCRA	Harding-Lawson Associates	Feb-00
Indoor Air Monitoring Plan Occupied Building Areas	Harding-Lawson Associates/ Foster Wheeler	Feb-00
Lead-Based Paint Guidelines for Disposal	DOD/EPA	Dec-99
Base Closure & Realignment Cleanup Plan	Harding-Lawson	Nov-99
Remedial Investigation Human Health Problem Formulation Technical Memorandum	URS Grenier/Woodward-Clyde	Nov-99
Tenants (SAEP) Misc. Correspondence	Department of the Army	Oct-99
Community Relations Plan	Harding-Lawson Associates	Sep-99
Groundwater (Cr & VOC) Operable Unit 2 EE/CA Work Plan – Non-time Critical Removal Action	Harding-Lawson Associates/ Foster Wheeler	Aug-99
Sikorsky Memorial Airport Environmental Impact Statement & Evaluation - Proposed Improvements to Runway 6-24 – Final – Vol. I	US DOT FAA/CT DOT Bureau of Aviation & Ports	May-99
Environmental Impact Statement for Disposal & Reuse of the SAEP	Corps of Engineers	Apr-99
Radiation Survey – Completion of Final Status	WE Manage, Inc.	Dec-98
Status of Radiation Surveys (Selected Areas)	WE Manage	Dec-98
Remedial Investigation Work Plan (Vol. I, II & III)	Woodward-Clyde	Oct-98
Site Safety & Health Plan – Remedial Investigation	Woodward-Clyde	Oct-98
Groundwater Assessment Monitoring Program 15 th Year First Event Report	Sound Environmental Solutions	May-98

TITLE	AUTHOR	DATE Month/Year
Asbestos Survey Final Report (Vol. I & II)	Malcolm-Pirnie	Apr-98
Defense Environmental Restoration Program FOST/FOSL Guidance	Department of Defense Army Material Command BRAC Office	Mar-98 Feb-98
Asbestos Survey Report/Appendix A Analytical Data	Malcolm Pirnie	Dec-97
DOD Base Reuse Implementation Manual	Department of Defense	Dec-97
Facility Demolition & Environmental Remediation Cost Estimate	ABB Environmental Services, Inc.	Oct-97
Environmental Baseline Survey Report – Final	ABB Environmental Services, Inc.	Dec-96
Remedial Investigation Report Phase II (Vol. I & II)	Woodward-Clyde	Mar-96
Environmental Liability Cost Analysis	Woodward-Clyde	Nov-94
Remedial Investigation Report (Vol. I & II)	Woodward-Clyde	Jun-93
Surface Impoundment Closure	VFL Technology Corp.	Aug-92
National Oil & Hazardous Substances Pollution Contingency Plan	US EPA	Jan-92
Remedial Investigation Work Plan	Woodward-Clyde	Jan-92
Preliminary Assessment Screening – Final	Woodward-Clyde	Dec-91
Lagoon Closure Phase II	VFL Technology Corp.	Mar-90
Historical Properties Report – SAEP	Building Technology, Inc.	Jul-84
Historical Commission Archeological Overview	Envirosphere Company	Feb-84