



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

November 17, 2023

Ryan Goerl, EH&S Manager
Pratt & Whitney
113 Wells Street
North Berwick, ME, 03906

Re: U.S. EPA-Region 1 Inspection Report of Pratt & Whitney, September 25-26, 2023

Dear Mr. Goerl:

In accordance with current policy, I am providing you with a copy of the final inspection report summarizing observations made during the September 25-26, 2023 Compliance Evaluation Inspection (CEI) of your facility. [Please note that the attachments referenced in the report are not being sent since they are already in your possession.]

This inspection was conducted under the authority of RCRA.

Please contact me at 617-918-1309 or maisano.ryan@epa.gov if you have any questions.

Sincerely,

Ryan Maisano, Physical Scientist
EPA Inspector, Waste and Chemical Compliance Section

cc: [Cherrie Plummer](#), Maine Department of Environmental Protection

Disclaimer: Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.



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RCRA Compliance Inspection of:

Pratt & Whitney
113 Wells Street
North Berwick, ME 03906

September 25-26, 2023
Date of Inspection

Ryan Maisano, Physical Scientist
Waste and Chemical Compliance Section

November 20, 2023
Date Inspection Report Approved

Mary Jane O'Donnell, Manager
Waste and Chemical Compliance Section

November 20, 2023
Date Inspection Report Finalized

November 21, 2023
Date Inspection Report Transmitted to Facility

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RCRA HAZARDOUS WASTE INSPECTION REPORT

Date: November 17, 2023

From: Waste and Chemical Compliance Section

Thru: Lisa Papetti, Senior Enforcement Coordinator
Waste and Chemical Compliance Section

To: RCRA Enforcement File

Subject: Environmental Protection Agency ("EPA") Resource Conservation and Recovery Act ("RCRA") Inspection of Pratt & Whitney

I. GENERAL INFORMATION

Facility Name:	Pratt & Whitney
Facility EPA Identification Number:	MED000791681
Type of Inspection (<i>CEI, FCI, CSI, etc.</i>):	CEI
Name(s) of inspector(s):	Ryan Maisano Craig Lutz, National Enforcement Investigations Center (NEIC)
Date(s) of inspection:	September 25-26, 2023

II. SITE INFORMATION

Site Name:	Pratt & Whitney
Complete Street Address:	Pratt & Whitney 113 Well Street North Berwick, ME 03906
Complete Mailing Address:	Pratt & Whitney 113 Well Street North Berwick, ME 03906

Contact(s) (Name, Title, Phone Number, Email)	Ryan Goerl EH&S Manager Email: ryan.goerl@prattwhitney.com Phone:207-676-4103
Date of latest Notification of Hazardous Waste Activities (per RCRAInfo):	7/20/2023
Date of first Notification of Hazardous Waste Activities (per RCRAInfo):	8/18/1980
Date established at present location:	Over 75 years at current location
NAICS Code:	336412- Aircraft Engine and Engine Parts Manufacturing
Current Property Owner:	RTX Corporation (formally Raytheon Technologies)
Current Operator:	Pratt & Whitney
Waste codes generated (per most recent Biennial Report):	D-Codes: D001 D002 D005 D006 D007 D008 D009 D035 D039 D040 F-Codes: F002 F003 F005 U-Codes: U002 U154

NOTIFICATION IN RCRAInfo:

- TSDF
- LQG
- SQG
- VSQG
- Universal Waste Handler (check one): SMALL
- Burner/Blender
- Transporter
- Receiving waste from off-site (if so, describe):
- Generator of State Waste
- Non-Notifier
- Other:

Facility Operating Status if different from above: N/A

Enforcement History:

No recent enforcement history. The last EPA inspection was completed on 10/28/2020 and no violations were noted at the time of the inspection.

III. IN-BRIEF

Credentials Presented: Yes No

Attendees (*names/titles*):

EPA:

Ryan Maisano, Physical Scientist, RCRA Inspector

Craig Lutz, Environmental Engineer, RCRA Inspector, NEIC

Pratt & Whitney:

Gary Patnaude, Waste Technician

Ryan Goerl, EH&S Manager

During the inspection in-brief, the EPA inspection team provided an overview of the inspection and requested paperwork to be reviewed. The EPA inspection team provided the Small Business Resources Information Sheet to the facility personnel. The inspection team briefly discussed handling Confidential Business Information (CBI). Pratt & Whitney did not designate any material as CBI at the time of the inspection or designate any material as CBI after the inspection.

Ryan Goerl, EH&S Manager, and Gary Patnaude, Waste Technician, provided an overview of the facility's history, process, waste generation, training of personnel, and personal protective equipment (PPE) required while in the facility.

The inspection team provided information on the RCRA inspection program processes, including a summary of enforcement options.

Number of Employees:	2,300
Size of Facility:	960,000 sq.ft.
Length of Facility at Location:	Over 75 years
Operating Hours:	7 days a week/24 hour a day
Number of Shifts:	Three-8 hr shifts.
Primary Emergency Coordinator:	Ryan Goerl
Alternate Emergency Coordinator:	Jeff Libby
Type of Operation:	Aircraft engine manufacturing, mainly plasma spray booths for metal powders for engines.

Facility Description (*principal business, building and property layout, history of company, etc.*):

Pratt & Whitney is an aircraft engine manufacturing company which is a subsidiary of the RTX Corporation (formerly Raytheon Technologies Corporation). They supply aircraft engine parts to the military and commercial airlines. The North Berwick site focuses mainly on aircraft engine part coating but does include modular assembly. The North Berwick site includes one main building and multiple smaller buildings which includes a wastewater treatment plant.

Hazardous waste management at the facility includes:

- Twenty (20) Hazardous Waste Accumulation Areas (HWAAs). Sixteen plasma booths are managed as HWAAs. Four (4) HWAAs are located outside the main building in three different smaller buildings. They are used for other wastes and waste consolidation.

No treatment or recycling of materials occurs at the facility.

Universal waste includes bulbs, used electronics, and batteries. Used oil is managed in a 5,000-gallon tank and it is sent for used oil recycling. Tradebe manages the facility's used oil.

US Ecology is Pratt & Whitney's waste hauler. They perform waste profiling and lab packs. US Ecology picks up monthly. World Resource collects the metal powder for metal recycling. The metal that is recycled is mainly nickel.

Process Description:

The main process at the Pratt & Whitney North Berwick facility is coating of aircraft engine parts by use of the plasma spray booths. These plasma spray booths are mainly for new parts. The booths coat the new parts with metal. The paint booth waste is managed as hazardous waste accumulation areas due to the volume of waste generated. Pratt & Whitney North Berwick facility also repair, and coat used parts. The North Berwick site also includes a nickel-plating line which is also used to coat aircraft parts. The nickel-plating line includes eight (8) 1,250-gallon tanks. Tanks 1, 4, and 5 are tested and pumped into totes for disposal when needed. Tanks 3, 6, 7, and 8 discharge to waste water treatment. The North Berwick facility does some modular assembly of parts which generates little to no waste. Used oil is generated from grinding fluid from parts repair, lube oil, and coolants for machines. A small wastewater treatment plant is located on the property. Modular assembly is also done on site but little to no waste is generated in that area. Aerosol cans are managed as hazardous waste and are picked up by U.S. Ecology. The QA/QC labs generate lab packs.

Types of Waste Handled:

- Ignitable (D001)
- Corrosive (D002)
- Reactive (D003)
- TCLP (D004 – D043)
- Universal Wastes (Types: Bulbs, used electronics, and batteries.)
- Other (specify):
- F or K listed wastes
- P or U listed wastes
- Precious Metals
- Hazardous Scrap Metals
- Used Oil
- State Regulated Wastes
- Unknown Wastes

Comments (descriptions and constituents if known):

Handling/Management Methods:

- Containers
- Wastewater Treatment (“WWTU”)
- Drip pads
- HWSA (s)
- Other
- Tanks – aboveground
- Tanks – underground
- Containment building
- SAA(s)

Comments:

Plasma spray booths are managed as HWAA because each of the sixteen booths contain multiple 55-gallon drums.

IV. PHYSICAL INSPECTION

Areas inspected (*descriptions and locations*):

The walkthrough started around 12:35 on September 25, 2023, the EPA inspection team was led around the facility by Ryan Goerl. The inspection team donned safety glasses, safety shoes, and gloves.

WASTES OBSERVED:

Waste Stream	EPA/State Waste Code	Container	Location	Comments
Chromic inert, solids, NA 3077	D007	3-55gallon drums	Spray Booth 43	HWAA POG (Point of generation) 43
Chromic inert, solids, NA 3077	D007	3-55gallon drums	Spray Booth 44	HWAA POG 44
Chromic inert, solids, NA 3077	D007	3-55gallon drums	Spray Booth 12	HWAA POG 12
Flammable solvents-Acetone, mixed alcohols, methanol, xylene UN1993		55-gallon drum	Inside Flammable Cabinet	SAA POG 57
Chromic inert, solids, NA 3077	D007	3-55gallon drums	Spray Booth 46	HWAA POG 46
Reclaimed hazardous solids, NA 3077		55-gallon drum		SAA POG 303
Hazardous solids with Alcohols, acetone- UN3175	D001 D002	Eight (8) 55-gallon drum	Building 600	HWAA
Hazardous solids with chromium. UN3244	D007	55-gallon drum	Building 600	HWAA
Aluminide Coating/Thermal Spray Solids		Sixteen (16)-55-gallon drums	Building 600	HWAA
Non-hazardous/Non-RCRA solids wipes		Eight (8)-20-gallon fiber cartons	Building 600	HWAA
Hazardous waste-Class 8 Corrosive Liquid PGIII		55-gallon drum	Building 510	POG 17
Hazardous waste Acid Sludge Brush Nickel Plating	D002 F006	55-gallon drum	Building 510	POG17
Non-hazardous aluminum oxide		Sixteen (16)-55-gallon drums	Building 510	POG 17

Descant Beads for compressors		Eight (8) 55-gallon drums	Building 510	POG 17
Oil from transformers waiting for PCB test		Seven (7) 55-gallon drums	Building 510	POG 17
Hazardous Waste TCLP Chrome Inert Solids/Filters NA307		1-Covered Roll off-	Building 13	HWAA- This was empty at the time of the inspection
Metal Hydroxide Sludge with Free Liquid	F006	Eight (8) 55-gallon drums	Building 13	HWAA
Acid Plating Rinse water	D002 D007 F006	Two (2) 275gallon totes	Building 13	HWAA
Flammable Solvents, mixed	D001 D007 D035 F003 F005	Two (2) 55-gallon drums	Building 14	HWAA Flammables Shed
Nickel Sulfates UN 3082		Two (2) 275-gallon totes	POG 272	Nickel Plating line
Acid Sludge Brushed Nickel, UN 1906	D002 F006	Two (2) 55-gallon drums	POG 272	Nickel Plating line
Non-Hazardous/Non RCRA Non-Burnable Solvent Dried Wipes/PPE		Two (2) 55-gallon drums	POG 272	Nickel Plating line

HAZARDOUS WASTE DETERMINATIONS

Requirements	Observations (Yes/NO/NA-Explain if needed)
Determination conducted for all waste streams, by what method	Yes
Determination updated, as needed (documentation on-site)	Yes
Comments:	

IGNITABLES/REACTIVES/INCOMPATIBLES

Requirements	Observations (Yes/No/NA-Explain if Needed)
Ignitable & reactive wastes separated from sources of ignition or reaction	Yes
No smoking signs (for ignitable & reactive wastes)	
Separation of all incompatibles (either incompatible wastes or wastes with incompatible containers)	Yes
Storage > 50 feet from property line	Yes
Comments:	

PREPAREDNESS & PREVENTION

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Wastes handled in a manner to minimize the potential for a fire, explosion or a release	Yes
Arrangements with local authorities	Yes
Immediate accessible to internal communications/alarm systems	Yes
Telephone/hand-held two-way radio	Yes
Emergency equipment (fire extinguishers, spill control decontamination equipment)	Yes
Equipment maintenance	HWAA appear to be maintained
Access to emergency equipment	Yes
Adequate aisle space (each area)	Yes
Adequate source of water in the event of a fire (federal regulations)	Yes
Comments:	

PRE-TRANSPORT REQUIREMENTS

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Packaging	Yes
Labeling (if applicable, DOT hazard class)	Yes
Marking (words "Hazardous Waste", generator information if being shipped)	Yes
Contents described	Yes
Proper DOT shipping name	Yes
Comments:	

SATELLITE ACCUMULATION

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Approximate number of satellite accumulation areas	60
Amount of waste per waste stream per satellite accumulation area (describe each area)	See the waste observed list for a description.
Appropriate amount of waste storage in SAA	Yes
Containers labeled and marked with contents described	Yes
SAA at or near point of generation	Yes
Containers closed when not actively adding or removing waste	Yes
Condition of containers	Containers appeared to be in good condition at the time of the inspection.
Impermeable base	Yes
Secondary Containment	Yes
Spill Control material	Yes
Comments:	

CONTAINER STORAGE – HWSA

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Number of container storage areas	20
Location(s)	At each of the 16 plasma spray booths and at smaller buildings outside the main building
Containers marked and contents described	Yes
Containers marked with accumulation start date	Yes
Approximate number & sizes of containers: Description:	See the waste observed list for a description.
Floor drains/sumps	No
Containers closed when not actively adding or removing waste	Yes
Condition of containers (leaks, ruptures, dents, corrosion, heat, pressure)	Containers were not damaged or leaking at the time of the inspection.
Impermeable base	Yes
Secondary Containment	Yes
Incompatibles separated by e.g., dike/wall	Yes
Storage less than 90 days or 180 days for SQG (hazardous waste)	Yes
Spill Control material	Yes
Comments:	

WASTE TANKS

The facility does not have hazardous waste tanks.

USED OIL

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Does the facility generate used oil	Yes
Is the generator's used oil mixed with other waste(s)	No
What type of waste(s) is used oil mixed with <input type="checkbox"/> Listed <input type="checkbox"/> Characteristic <input type="checkbox"/> Non-hazardous waste	N/A
If mixture is with characteristic hazardous waste, is the combined waste tested for characteristics	Not observed
Testing for rebuttable presumption	Not observed
Total halogen content determination	Not observed
Total halogen content determined by <input type="checkbox"/> testing or <input type="checkbox"/> generator knowledge	Not observed
Are the total halogens <input type="checkbox"/> less than 1,000 ppm or <input type="checkbox"/> greater than 1,000 ppm	Not observed
F-listed halogen constituents above 100 ppm	Not observed
Used oil managed according to applicable standards	Not observed
Is used oil accumulated on-site in: <input type="checkbox"/> Container(s) <input checked="" type="checkbox"/> Aboveground tank(s) <input type="checkbox"/> Underground tank(s)	Used oil is accumulated in a 5,000-gal tank
Describe type, method, and condition	Used oil tank was not damaged and appeared to be in good condition see Photo # 23
Comments:	

INSPECTION SCHEDULE AND LOG

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Does the facility claim inspections are conducted (tank and/or container inspections)	Yes
Written inspection schedule	Yes
Inspection log (adequacy of contents: date, time, items inspected, corrective actions, identity of inspector, signatures, etc.)	Yes
Documentation	Yes
Appropriate tank inspections, including containment, level detection, ancillary equipment	Yes

Appropriate treatment equipment inspections	Yes
All loading/unloading areas subject to spills (when in use)	Yes
All hazardous waste storage areas (satellite and < 90 day where applicable), at all required frequencies	Yes
All Safety and emergency equipment (monthly) where necessary	Yes
Tanks cathodic protection (within six months, then yearly) where necessary	Yes
Comments:	Inspection records are kept at each HWAA. Previous records were reviewed from 2020-2023

CONTINGENCY PLAN

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Plan on-site	Yes
Date of plan	First issued May 15, 1979. Last update November 11, 2021
Emergency Coordinator(s) name, address, home and office phone numbers	Yes
Number to call to report emergency (internal)	Yes
Plan to local authorities with proof of distribution (police, fire, hospital, emergency response teams)	Yes
Emergency procedures (fire, explosions, releases/spills)	Yes
Emergency coordinator(s) on-site or within a short driving distance of the company at all times	Yes
Emergency equipment list location, description, capabilities	Yes
Evacuation plan (signal, primary and alternate routes)	Yes
Has the contingency plan been amended	Yes
All remaining applicable requirements addressed	Yes
Comments:	

PERSONNEL TRAINING RECORDS

Requirements:	Observations (Yes/No/NA-Explain if Needed)
All facility personnel that require training identified	Yes
All facility personnel that require training have been properly trained	Yes
New employees trained within 6 months and documentation of OST	Yes
Annual refresher training for all employees requiring training	Yes
Last annual training date for each employee	Yes
Written description of training course	Yes
Adequate training for all employees	Yes
Job title, job description, name of employee, and description of required training	Yes
Job duties related to hazardous waste	Yes
Records maintained on-site until closure or three years for former employees	Yes
Comments:	Training slides were reviewed. Ryan Goerl presents slides to new employees during orientation. Employees take an annual refresher online.

MANIFESTS

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Dates/months of shipping records reviewed	Manifests were reviewed from 2022-2023
Manifests maintained for three years	Yes
Correct EPA ID numbers used	Yes
All required parts completed	Yes
Correct shipping names, numbers used	Yes
Copies distributed correctly	Yes
Exception reports filed, and available for review	N/A
Manifests used for all hazardous waste shipments	Yes
Appropriate copy(ies) on-site:	Yes
Comments:	The facility tracks each manifest on a paper log to ensure the signed facility copy is received. The log dates to 1991.

Date	Manifest #	Waste description and amount	Comments
8/14/2022	017439069FLE	Non-DOT Sandblast Grit	All copies present, signed/dated.
9/7/2023	024672138JJK	Thermal Spray Powder D007, NA3077 Hazardous Waste	All copies present, signed/dated.
8/9/2023	0225227675JJK	Non-DOT/Non RCRA Regulated Material	All copies present, signed/dated.

LAND DISPOSAL RESTRICTIONS

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Generator has determined whether the waste meets treatment standard(s)	Yes
If the waste or contaminated soil does not meet the treatment standard(s), the generator has sent a one-time written notification (or subsequent notification(s) if the waste changes) to each receiving facility or the generator has sent individual notification(s) for each shipment of waste	Not Observed
If the waste or contaminated soil meets the treatment standard(s) at the original point of generation, the generator has sent a one-time written notification (or subsequent notification(s) if the waste changes) to each receiving facility	Yes
The generator has identified all appropriate waste codes and/or underlying hazardous constituents (UHCs) on each shipment	Yes
The generator retained on-site a copy of each LDR documentation for 3 years	Yes
Comments:	

IMPORT/EXPORT ACTIVITIES

The facility does not import or export hazardous waste.

ANNUAL/BIENNIAL REPORT

Requirements:	Observations (Yes/No/NA-Explain if Needed)
The company has completed an annual or biennial report, when/if it is required	Yes
Comments:	

UNIVERSAL WASTE

Requirements:	Observations (Yes/No/NA-Explain if Needed)
Does the company/facility handle universal wastes	Yes
What universal wastes are handled/generated by the facility	Bulbs, used electronics, and batteries.
Does the company/facility qualify as an LQH or SQH of universal waste	SQH
Does the current handling of universal waste prevent breakage, leakage, spillage or damage that could cause leakage	Yes
Are the containers of universal waste structurally sound and compatible with the contents	Yes
Do the universal waste containers carry appropriate markings/labeling	Yes
Does universal waste meet the requirements for accumulation start date	Yes
Does the generator comply with the less than one year accumulation time limit	Yes
Is the universal waste item or container dated from the earliest receipt of the item or when first placed in the container	Yes
Does the company/facility keep appropriate manifests or shipping documents of universal wastes either received at or shipped from the facility to a destination facility	Yes
Are records kept for at least three years from date of receipt to or transfer from the facility	Yes
Comments:	Universal waste is stored in building 600.

OUT-BRIEF

List Attendees (*names/titles*):

EPA:

Ryan Maisano, Physical Scientist, RCRA Inspector
Craig Lutz, Environmental Engineer, RCRA Inspector

Pratt & Whitney:

Gary Patnaude, Waste Technician
Ryan Goerl, EH&S Manager
Jeff Libby, EH&S Senior Manager

Summary of out-brief:

(include a list of areas of concern that were discussed)

The out-brief was conducted on September 26, 2023, on-site before the inspection team left the facility. The inspection team provided an overview of the observations made including:

1. There were no “No Smoking” signs on any of the spray booth hazardous waste accumulation areas. Signs were added and observed during second day of the inspection.
2. At POG 13, the evacuation map, emergency contact numbers, and “Warning Hazardous Waste” sign were all missing at the time of the inspection. This signage was added before the inspection team left the site.
3. At POG 15, the emergency contact list and evacuation map signage were missing at the time of the inspection. These signs were added before the inspection team left the site.

Documents still in need of review as of end of inspection:

Jason Petrin training documents were provided by email on 10/2/2023.

See APPENDIX 1: Digital Images taken by EPA Region 1 during the inspection.