

RCRA Compliance Evaluation Inspection Report

1) Inspector and Author of Report

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2) Facility Information

General Dynamics Ordnance and Tactical Systems (OTS)

EPA ID Number: ALR000001966

NAICS Code: 336419

Physical Address: 1425 Commerce Boulevard
Anniston, Alabama 36207
Calhoun County

3) Responsible Officials

Mr. David Kirby, Environmental Health and Safety (EHS) Manager, General Dynamics OTS

4) Inspection Participants

Mr. David Kirby, EHS Manager, General Dynamics OTS
Mr. Colton Whisenant, EHS Engineer
Ms. Anitra Freeman, EHS Specialist
Mr. Drew Phillips, Environmental Scientist, ADEM
Mr. Raj Aiyar, U.S. EPA, Region 4

5) Date and Time of Inspection

March 17, 2022, 8:30 a.m.

6) Applicable Regulations

Resource Conservation and Recovery Act (RCRA) Sections 3002, 3004, 3005, 3007 and 3008,
(42 U.S.C. §§ 6922, 6924, 6925, 6927 and 6928)

40 Code of Federal Regulations (C.F.R.) Parts 260-266, 270, 273, 279

Alabama Hazardous Waste Management and Minimization Act of 1978, Ala. Code § 22-30-1 et seq., and rules 335-14-1 to 335-14-17 (2016 and 2018) of the Alabama Department of Environmental Management (ADEM) Administrative Code (ADEM Admin. Code).

As the State's authorized hazardous waste program operates in lieu of the federal RCRA program, the citations of those authorized provisions alleged herein will be to the authorized State program; however, for ease of reference, the federal citations will follow in brackets.

7) **Purpose of Inspection**

On March 17, 2022, inspectors from the U.S. Environmental Protection Agency, Region 4, and the Alabama Department of Environmental Management (ADEM) conducted an unannounced compliance evaluation inspection (CEI) at General Dynamics OTS (hereinafter, "General Dynamics" or the "facility") to determine its compliance status with the RCRA and the State of Alabama regulations.

8) **Facility Description**

General Dynamics Ordnance and Tactical Systems (General Dynamics) is a government defense contractor that specializes in the manufacture of the housing and structural components of missiles and rockets. The components are manufactured using a Computer Numerical Controlled (CNC) machine using various alloys as the base. The facility does not manufacture any of the warhead or explosives used in the missile systems. The missile and the rocket components manufactured at the facility include the Tomahawk, Patriot, and the Hydra.

General Dynamics has been in operation since 1995 and employs approximately 240 people. The facility operates three shifts, 4 Days/10-Hours, 5 Days/8-Hours and a third shift comprising of a small crew. In its notification of hazardous waste activity (ADEM Form 8700-12, dated September 3, 2021), General Dynamics notified as a large quantity generator of hazardous waste (D001, D002, D006, D007, D008, F003, F005 and U123), used oil generator and a small quantity handler of universal waste.

General Dynamics uses Univar (EPA ID# ALD072095169) as transporter and Clean Earth of Alabama (EPA ID# ALD981020894) for waste disposal purposes.

9) **Previous Inspection History**

General Dynamics was inspected by ADEM on October 10, 2019. Several deficiencies were observed during the inspection regarding marking and container management. The facility was later observed to have returned to compliance on the same day. There was no prior EPA inspection at the General Dynamics facility.

10) **Findings**

Inspectors arrived at the facility at approximately 8:30 a.m. and were greeted by Mr. Kirby, the facility's EHS Manager. Mr. Kirby then directed us to a conference room where we prepared for an opening conference meanwhile, Mr. Kirby reached out to his staff to participate in the

opening conference. Ms. Freeman, Mr. Whisenant joined us for the opening conference. As part of the opening conference, Mr. Phillips and myself conducted a formal introduction, showing our credentials and stated the purpose of our visit. Mr. Kirby provided us with the current operation onsite and discussed the safety, security, and logistics for the inspection. Mr. Kirby mentioned that since the operation and processes at the facility involved national security, he said that photography inside the building was restricted. Mr. Kirby later accompanied the inspectors on the site visit.

1. Production Floor

A. Manufacturing Floor/Processes

a. Machining

Computer Numerical Controlled (CNC) machines fabricate various parts of missile housing and components. The machining process generates the facility's largest waste stream of spent coolant water. The coolant wastewater is treated onsite in a wastewater treatment system. The sludge generated is managed as hazardous waste (D008).

Some fabricated parts are welded together. The welded parts then go through nondestructive (x-ray) testing to check for structural defects and cracks in the weld. The x-ray machine uses a corrosive fluid in its operation. This x-ray testing station is in the corner of the main CNC floor. The spent corrosive (D002) fluid is changed periodically to keep the machine functioning properly. The inspectors observed one 55-gallon drum in the satellite accumulation area (SAA) located adjacent to the x-ray testing station. The SAA drum was observed to be closed and labeled with hazard indication on a spill containment pallet. There were no leaks or spills observed near the drum.

B. Nozzle Body Assembly Area

After machining the missile and rocket components, parts are manually inspected for defects, cleaned, polished, and assembled by employees at the various workstations. The major waste stream generated in this area comprises of spent solvent contaminated wipes used for cleaning purposes. The inspectors observed several five-gallon satellite accumulation area (SAA) containers in the production area containing spent solvent contaminated wipes. The spent wipes stored in the containers did not appear to contain any free liquids. According to Mr. Kirby, each of the SAA containers are emptied daily at the end of a shift. ***The inspectors recommended Mr. Kirby manage the solvent-contaminated wipes sent for disposal pursuant to 40 CFR 261.4(b)(18)[Hazardous Waste Exclusion] provided the conditions of the exclusions are met which includes storage requirements, labeling, accumulation time limits and recordkeeping.***

During the walk-through in the assembly area, the inspectors observed one workstation that generated cadmium dust (D006) debris inside a container known as

the “Grind Box”. The “Grind Box” is used to grind off exterior excesses of cadmium coated parts. The filter containing D006 waste is replaced once a year and managed as hazardous waste. The Q-tips used for cleaning purposes are stored in a five-gallon satellite container and managed as spent solvent contaminated wipes. ***The inspectors recommended Mr. Kirby consider managing the solvent-contaminated wipes sent for disposal pursuant to 40 CFR 261.4(b)(18)[Hazardous Waste Exclusion] provided the conditions of the exclusions are met which includes storage requirements, labeling, accumulation time limits and recordkeeping. Although the Grind Box was in use, the inspectors recommended labeling the “The Grind Box” with a hazardous waste label and with a hazard indication label since it contains D006 hazardous waste.***

C. Paint Booth/Paint Area

According to Mr. Kirby, some of the components are surface treated and painted in the manufacturing area. At the facility, one totally enclosed paint booth is used to surface treat (sodium dichromate/D002) and paint missile components. Mr. Kirby stated that one of the paints used in the paint booth area contains hexavalent chromium (D007) and hence is managed as a hazardous waste. Next to the paint booth, the inspectors observed three 55-gallon drums in the SAA. The drums contained spent paint booth filters (D007), waste cadmium debris (D006) and waste sodium dichromate (D002). All the drums were observed to be closed and labeled as “Hazardous Waste”. One drum of waste D006 was missing a hazard indicator label.

Pursuant to ADEM Admin. Code r. 335-14-3-.01(5)(a) [40 C.F.R. § 262.15(a)], a generator may accumulate as much as 55 gallons of non-acute hazardous waste in containers at or near the point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or without having interim status, as required by Section 22-30-12(b) of the AHWMMA, Ala. Code § 22-30-12(b) [Section 3005 of RCRA, 42 U.S.C. § 6925], and without complying with ADEM Admin. Code r. 335-14-3-.01(6)(b) [40 C.F.R. § 262.16(b) or §262.17(a)], except as required in ADEM Admin. Code r. 335-14-3-.01(5)(a) [40 C.F.R. § 262.15(a)(7) and (8)], provided that the generator complies with the satellite accumulation area conditions listed in ADEM Admin. Code r. 335-14-3-.01(5)(a) [40 C.F.R. § 262.15(a)] (hereinafter referred to as the “SAA Permit Exemption”).

Pursuant to ADEM Admin. Code r. 335-14-3-.01(6)(b)6.(i) [40 C.F.R. § 262.15(a)(5)], which is a condition of the SAA Permit Exemption, a generator is required to mark or label its containers (i) with the words “Hazardous Waste” and (ii) with an indication of the hazards of the contents:

D. Metal Reclamation

In this area, the metal shavings from the CNC machine area are transported to a large 40-yard roll-off container (Photo-1) staged outside under a canopy adjacent to the manufacturing building. The spent lead (D008) contaminated oil coolant mixture

gravity drains to the bottom of the roll-off container in a catch-basin. The waste D008 oil/coolant mixture is pumped from the catch-basin through underground pipes to three large 1,100-gallon storage tanks located inside the Hazardous Waste Storage Area. Once all the waste D008 oil/coolant mixture is drained from the shavings, the scrap metal is sold to a recycler for recycling purposes. There were no leaks or spills observed near the roll-off container.

E. Hazardous Waste Storage Area

Mr. Kirby escorted us to the hazardous waste storage area located outside the manufacturing building (Photo-2). The storage area consisted of a locked corrugated metal shed. The appropriate signage was located on the outside of the shed warning of the hazards. Mr. Kirby unlocked the shed during the site visit.

The inspectors observed three 1,100-gallon plastic tanks (Photo-3) labeled as “Coolant Water Sludge” and as “Hazardous Waste”. The tanks also had hazard indication on them. All the tanks were observed inside a diked secondary containment. All the tanks were observed to be open at the top. The inspectors observed absorbent mats placed inside the diked walls with spilled waste material inside the secondary containment system. According to Mr. Kirby, the waste coolant sludge in the tanks is managed as less than 90-day storage. Mr. Kirby did not appear to maintain any inventory logs and/or records demonstrating that the hazardous waste in the tanks were being emptied within ninety days of first entering the tanks readily available for inspection onsite.

Pursuant to ADEM Admin. Code r. 335-14-3-.01 (7)(a)2. [40 C.F.R. § 262.17(a)(2)], which incorporates ADEM Admin. Code r. 335-14-3-.01 [40 C.F.R. Part 265, Subpart J], and is a condition of the LQG Permit Exemption, a generator accumulating hazardous waste in tank systems is required to comply with the applicable requirements of ADEM Admin. Code r. 335-14-3-.01 [40 C.F.R. Part 265, Subpart J], except ADEM Admin. Code r. 335-14-6-.12(9) [40 C.F.R § 265.197(c)] (closure and post-closure care) and ADEM Admin. Code r. 335-14-6-.11(6) [40 C.F.R § 265.200] (waste analysis and trial tests).

Pursuant to ADEM Admin. Code r. 335-14-3-.01(2) [40 C.F.R. § 262.11], a person who generates a solid waste, as defined in ADEM Admin. Code r. 335-14-2-.01(2) [40 C.F.R. § 261.2], must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations articulated in ADEM Admin. Code r. 335-14-3-.01(2) [40 C.F.R. § 262.11].

Pursuant to ADEM Admin. Code r. 335-14-3-.01(7)(a)6 [40 C.F.R. § 262.17(a)(6)], which incorporates ADEM Admin. Code r. 335-14-3-.01(7)(a)6 [40 C.F.R. § 262.251], and is a condition of the LQG Permit Exemption, a generator is required to maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water

which could threaten human health or the environment.

Pursuant to ADEM Admin. Code r. 335-14-3-.01 (5)(ii) [40 C.F.R. § 262.17(a)(5)(ii)], which is a condition of the LQG Permit Exemption, a generator must use inventory logs, monitoring equipment or other records to demonstrate that hazardous waste has been emptied within 90 days of first entering the tank; and keep inventory logs or records with the above information on site and readily available for inspection.

F. Less than 90-day Central Accumulation Area

The storage area consisted of a locked corrugated metal shed. The appropriate signage was located on the outside of the shed warning of the hazards. There was proper secondary containment as the floor of the building was chemically coated with a berm surrounding the building's perimeter. The inspectors observed two 55-gallon drums of paint filters (D007, D008), one 55-gallon drum of cadmium debris (D006) being staged inside the building (Photo-4). All the drums were observed to be closed, labeled, and dated. The oldest accumulation start date was observed to be February 11, 2022.

The inspectors observed one 275-gallon tote containing wastewater sludge (Photo-5). The tote was observed to be closed and labeled as "Hazardous Waste" and with a hazard indication label. The accumulation start date on the tote was missing. In response to an inquiry regarding the sludge stored in the tote, Mr. Kirby stated that the spent coolant water (D008) is piped from metal reclamation area and stored in one of three 1,100-gallon tanks located in the hazardous waste storage area. The tanks are directly connected to an evaporator unit located outside of the hazardous waste storage building through the tank management system. Once the evaporator removes the coolant water, the residual sludge is stored in a tote and managed as hazardous waste (D008) for the purpose of storage and disposal. There were no leaks or spills observed in the storage area. The storage area was observed to be equipped with fire extinguisher and spill kits.

Pursuant to ADEM Admin. Code r. 335-14-3-.01 (7) [40 C.F.R. § 262.17], a LQG may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, as required by Section 22-30-12(b) of the AHWMMA, Ala. Code § 22-30-12(b) [Section 3005 of RCRA, 42 U.S.C. § 6925], provided that the generator complies with the conditions listed in ADEM Admin. Code r. 335-14-3-.01 (7) [40 C.F.R. § 262.17] (hereinafter referred to as the "LQG Permit Exemption").

Pursuant to ADEM Admin. Code r. 335-14-3-.01 (5)(i) [40 C.F.R. § 262.17(a)(5)(i)], which is a condition of the LQG Permit Exemption, a generator must mark or label its containers with the date upon which each period of accumulation begins clearly visible for inspection on each container.

11) **Record Review**

Once we completed the walkthrough of the facility, we returned to the office area to conduct a review of the required documentation. The records reviewed for a three-year period (2019-2021) included the following:

- Annual Training Records included job description
- Contingency Plan including quick reference guide and description of arrangement with local emergency officials
- Weekly Hazardous Waste Inspection Log for the 90-day storage area
- Hazardous Waste Manifests

Based on the review of the records, the records appeared to be complete.

12) **Out-Briefing**

An exit briefing was conducted at the conclusion of the inspection. Mr. Kirby participated in the exit briefing. The observations made during the inspection were discussed and the inspection was concluded.

13) **Signed**

RAJAGOPAL AIYAR Digitally signed by RAJAGOPAL AIYAR
Date: 2022.05.06 21:05:03 -04'00'

Raj Aiyar
Environmental Engineer

Date

14) **Concurrence**

ARACELI CHAVEZ Digitally signed by ARACELI CHAVEZ
Date: 2022.05.09 21:45:54 -04'00'

Araceli B. Chavez
Chief
RCRA Enforcement Section

Date

Attachment A

GENERAL DYNAMICS OTS

ANNISTON, ALABAMA

EPA ID # ALR000001966

MARCH 17, 2022

Photos taken by EPA and ADEM

Camera Type: WB250F

EPA Tag No.: S75912



Photo-1 40-yard Roll-off Container containing waste metal shavings



Photo-4 Less than 90-day Storage Area



Photo-2 Hazardous Waste Storage Area



Photo-5 275-gallon tote containing waste sludge (D008)



Photo-3 1,100-gallon tanks containing coolant water sludge in Secondary Containment System with leaks and spills