



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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GOVERNOR

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**General Dynamics Armament
And Technical Products, Inc.
York County
Saco, Maine
A-434-71-Q-R/A (SM)**

**DEPARTMENTAL
FINDINGS OF FACT AND ORDER
AIR EMISSION LICENSE**

After review of the air emissions license renewal and amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. General Dynamics Armament and Technical Products, Inc. (General Dynamics) of Saco, Maine, has applied to renew their Air Emission License, permitting the operation of emission sources associated with their military weapons manufacturing facility.
2. This air emission license renewal will include an amendment to include emissions from two processes that were not included in previous licensing. Emissions from the manganese-phosphate coating line and from the firing range will be included in this license renewal.
3. General Dynamics has also requested that this air emission license renewal include an amendment to allow #2 fuel oil or natural gas to be fired in the facility's three #6 fuel oil fired boilers as well as the facility's two small natural gas fired boilers.
4. General Dynamics has further requested that this air emission license renewal include an amendment to replace the packed bed scrubber servicing chrome plating line #3 with a new, 3-stage composite mesh pad system.

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B. General Dynamics is applying to include the operation of the following equipment to its air emissions license:

Boilers

Unit ID	Date of Construction	Maximum Capacity (MMBtu/hr)	Fuel Type, % Sulfur	Maximum Firing Rate	Stack #
Boiler #1	1971	25.2	Natural Gas or #2 Fuel Oil, 0.5% or #6 Fuel Oil, 0.7%	24,706 scf/hr, 180 gal/hr, 168 gal/hr	1
Boiler #2	1951	25.2	Natural Gas or #2 Fuel Oil, 0.5% or #6 Fuel Oil, 0.7%	24,706 scf/hr, 180 gal/hr, 168 gal/hr	2
Boiler #3	1951	25.2	Natural Gas or #2 Fuel Oil, 0.5% or #6 Fuel Oil, 0.7%	24,706 scf/hr, 180 gal/hr, 168 gal/hr	3
Boiler #4	-	2.1	Natural Gas or #2 Fuel Oil, 0.5%	2,059 scf/hr, 15.0 gal/hr	9
Boiler #5	-	2.1	Natural Gas or #2 Fuel Oil, 0.5%	2,059 scf/hr, 15.0 gal/hr	10

Heat Treat Units (natural gas fired)

Unit ID	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (cfh)
HT-0005	1.0	1500
HT-0006	1.0	1145
HT-6213	1.6	1000
HT-A026	1.2	1000

Fire Pump and Back-Up Generator Diesel Units

Unit ID	Maximum Capacity (MMBtu/hr)	Fuel Type, % Sulfur	Maximum Firing Rate (gal/hr)	Stack #
Generator #1	2.4	Diesel, 0.05%	17.5	4
Generator #2	2.1	Diesel, 0.05%	15.3	8
Fire Pump #1	1.1	Diesel, 0.05%	8.0	5

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Process Equipment

Equipment Description	Pollutant	Control Device
Chrome Plating-Miscellaneous Parts Line (Line #3)	Particulate Matter (PM), Chrome	Duell Composite Mesh Bed
Chrome Plating-Large Barrel Plating Line (Line #4)	PM, Chrome	Ceco Fiber Bed Mist Eliminator
Chrome Plating-Small Barrel Plating Line (Line #5)	PM, Chrome	Ceco Fiber Bed Mist Eliminator
Tin/Lead Plating Line	PM, Nickel, Lead	Composite Mesh Bed
Manganese-Phosphate Coating Line	Manganese	Uncontrolled
Spray Booth	PM, Volatile Organic Compounds (VOC)	HVLP Spray Guns, Carbon Filters
Evaporator	VOC	Uncontrolled
Shoot Blasting Rotary Table #1	PM	Cyclone, filter
Shoot Blasting Rotary Table #2	PM	Cyclone, filter
Shoot Blasting Rotary Table #3	PM	Cyclone, filter
Shot Blasting Gun Barrel Unit #1	PM	Cyclone, filter
Shot Blasting Gun Barrel Unit #2	PM	Cyclone, filter
Foam-in-Place	VOC, Hazardous Air Pollutants (HAP)	Uncontrolled
Solvent Degreaser	VOC	Per 06-096 CMR 130

General Dynamics also operates the following heat treat units that are considered insignificant sources, in accordance with Appendix B of Maine's rule *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended on December 24, 2005). The heat treat units are mentioned for inventory purposes only. The following heat treat units are considered insignificant emissions sources:

Insignificant Heat Treat Units (natural gas fired)

Unit ID	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (cfh)
HT-0001	0.07	66
HT-0002	0.87	800
HT-0003	0.47	450
HT-0004	0.25	240
HT-B301	0.5	500

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C. Application Classification

The application for air emission license renewal for General Dynamics includes an amendment to include emissions from equipment that was not included in previous air emission licenses for the General Dynamics facility as well as adding #2 fuel to the available fuels that can be fired in the oil fired boilers. The amendment will not result in a significant emissions increase of regulated pollutants, therefore, this application is considered a renewal and a minor modification of a minor source and has been processed as such.

II BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Maine's rule *Definitions Regulation*, 06-096 CMR 100 (last amended December 1, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 CMR 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers #1, #2 and #3

General Dynamics makes use of three boilers to satisfy their process steam and facility heating and hot water needs. The boilers, designated Boilers #1, #2 and #3, each have rated heat input capacities of 25.2 million British Thermal Units per hour (MMBtu/hr) firing #6 fuel oil. In the interest of operational flexibility, General Dynamics has proposed that the Boilers #1, #2 and #3 also be allowed to fire #2 fuel oil and/or natural gas.

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Boilers #1, #2 and #3 were all manufactured prior to the applicability date of, and are therefore not subject to, EPA New Source Performance Standards (NSPS) 40 CFR Subpart Dc, for boilers with a heat input of 10 MMBtu/hr greater and manufactured after June 9, 1989.

General Dynamics previous license established an annual fuel restriction for Boilers #1, #2 and #3 of no greater than 600,000 gallons of fuel per year (gal/yr) combined in Boilers #1, #2 and #3, based on a twelve-month rolling total. 600,000 gallons of #6 fuel oil has a Btu value of 90,000 MMBtu. Rather than establishing a fuel use limit for each fuel that General Dynamics may use, this renewal shall establish an annual heat input restriction equivalent to the previously established #6 fuel oil restriction. General Dynamics shall be subject to an annual heat input restriction of 90,000 MMBtu/yr combined for Boilers #1, #2 and #3. This will allow General Dynamics the operational flexibility to burn #6 fuel oil, #2 fuel oil or natural gas at any time. (90,000 MMBtu/yr is approximately equal to 643,000 gallons of #2 fuel oil or 88,235,000 standard cubic feet (scf) of natural gas.)

General Dynamics shall be restricted to firing #6 fuel oil with a sulfur content of no greater than 0.7% sulfur by weight and #2 fuel oil that meets the criteria of ASTM D396 for #2 fuel oil.

Compliance with the facility wide boiler heat input restriction and sulfur restrictions shall be documented via a fuel use record that will be maintained on a twelve-month rolling total basis. Compliance shall be determined monthly by adding the previous 11-month total capacities to the current month's total capacity. The fuel use record shall include the amount of fuel fired, either #6 fuel oil, #2 fuel oil or natural gas, certification of meeting the sulfur content restrictions and/or ASTM D396 criteria for #2 fuel oil and calculations converting the fuel usage into MMBtu heat input.

In determining the heat input for the boilers, General Dynamics shall use daily metered fuel records that indicate the date and quantity of fuel consumed by the boilers. Heat input shall be calculated using the following formulas:

- 1 For #6 fuel use: Heat input equals (#6 fuel usage (in gallons) x 150,000 Btu per gallon of #2 fuel)
- 2 For #2 fuel use: Heat input equals (#2 fuel usage (in gallons) x 140,000 Btu per gallon of #2 fuel)
- 3 For natural gas use: Heat input equals (natural gas usage (in scf) x 1020 Btu per scf of natural gas)

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General Dynamics is also allowed to combust up to 10,000 gallons of on-site generated waste oil per year based on a twelve-month rolling total. General Dynamics shall fire only waste oil that meets the "specification" waste oil criteria as defined in the "Waste Oil Management Rules". General Dynamics shall include the dates and amounts of waste oil fired in the fuel use log as well as a current characterization of the facility's waste oil.

The following is a summary of the BACT/BPT analysis for Boilers #1, #2 and #3:

1. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103, (last amended November 3, 1990) regulates PM emission limits and establishes a PM emission limit of 0.2 lb/MMBtu. The PM₁₀ emission limits are derived from PM limits.
2. SO₂ emissions limits are based on the firing of #6 fuel or waste oil with a sulfur content of no greater than 0.7% sulfur, the firing of #2 fuel oil which meets the criteria in ASTM D396 for #2 fuel oil or the firing of natural gas.
3. NO_x, CO and VOC emission limits are based upon AP-42 data dated 10/98 for the combustion of #6 and #2 fuel oils and AP-42 data dated 7/98 for the firing of natural gas.
4. Visible emissions from each boiler stack are subject to *Visible Emissions Regulation*, 06-096 CMR 101 (last amended May 18, 2003).
 - a. Visible emissions from each boiler stack, during periods when the associated boiler is firing #6 fuel oil, shall not exceed 30% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.
 - b. Visible emissions from each boiler stack, during periods when the associated boiler is firing #2 fuel oil, shall not exceed 20% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.
 - c. Visible emissions from each boiler stack, during periods when the associated boiler is firing natural gas, shall not exceed 10% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

C. Boilers #4 and #5

General Dynamics makes use of two small boilers to satisfy some of their facility heating and hot water needs. The boilers, designated Boilers #4 and #5, each have rated heat input capacities of 2.1 MMBtu/hr firing natural gas. In the interest of operational flexibility, General Dynamics has proposed that the Boilers #4 and #5 be allowed to fire #2 fuel oil.

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Boilers #4 and #5 have maximum heat input capacities below the applicability threshold of, and are therefore not subject to, EPA New Source Performance Standards (NSPS) 40 CFR Subpart Dc, for boilers with a heat input of 10 MMBtu/hr greater and manufactured after June 9, 1989.

A summary of the BACT/BPT analysis for Boilers #4 and #5 is as follows:

1. 06-096 CMR 103 regulates PM emission limits and establishes a PM emission limit of 0.12 lb/MMBtu when Boilers #4 and #5 are firing #2 fuel oil. Emissions limits when Boilers #4 and #5 are firing natural gas are based on AP-42 factors for boilers firing natural gas dated 7/98. The PM₁₀ emission limits are derived from PM limits.
2. When firing #2 fuel oil, SO₂ emissions limits are based on the firing of #2 fuel oil which meets the criteria in ASTM D396 for #2 fuel oil. When firing natural gas, SO₂ emissions limits are based on AP-42 data for boilers firing natural gas dated 7/98.
3. NO_x, CO and VOC emission limits are based upon AP-42 data dated 7/98 for boilers firing natural gas and data dated 9/98 for boilers firing #2 fuel oil.
4. Visible emissions from each boiler stack are subject to 06-096 CMR 101.
 - a. When firing natural gas, visible emissions from each boiler stack shall not exceed 10% opacity on a six-minute block average, except for no more than 1 six-minute block average in a 3-hour period.
 - b. When firing #2 fuel oil, visible emissions from each boiler stack shall not exceed 20% opacity on a six-minute block average, except for no more than 1 six-minute block average in a 3-hour period.

D. Heat Treat Units

General Dynamics operates several heat treat units of different sizes to treat parts to increase hardness, decrease brittleness, increase fracture resistance and enhance the carbon content of the metal surfaces. The process is a six-step process which includes cleaning, hardening, inducting, annealing, carbonizing and tempering the metal. There are nine heat treat units in total, five of the heat treat units are, in accordance with Appendix B of Maine's rule 06-096 CMR 115, insignificant sources of emissions and four of the units have maximum heat input capacities larger than 1.0 MMBtu/hr. The four units that are subject to licensing, designated HT-0005, HT-0006, HT-6213 and HT-A026, have maximum heat input capacities of 1.0, 1.0, 1.6 and 1.2 MMBtu/hr, respectively. The units fire natural gas.

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The following is a summary of the BACT/BPT analysis for the Heat Treat units:

1. 06-096 CMR 103 regulates PM emission limits, however, a PM emission limit of 0.05 lb/MMBtu has been determined by the Department to represent BPT. The PM₁₀ emission limits are derived from PM limits.
2. SO₂, NO_x, CO and VOC emission limits are based upon AP-42 data dated 7/98 for boilers firing natural gas.
3. Visible emissions from each heat treat unit stack are subject to 06-096 CMR 101. When firing natural gas, visible emissions from each heat treat unit shall not exceed 10% opacity on a six-minute block average, except for no more than 1 six-minute block average in a 3-hour period.

E. Back-Up Generator and Fire Pump Diesel Units

1. Back-Up Generator Diesel Units

General Dynamics operates two back-up diesel generator units designated Generators #1 and #2. The diesel generators are located in the Boiler House and the Firing Range, respectively. Generators #1 and #2 have maximum heat input capacities of 2.4 MMBtu/hr and 2.1 MMBtu/hr, respectively and each generator was manufactured and installed in 1975. These generators were manufactured and purchased before the applicability date of and are therefore not subject to New Source Performance Standards 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

As previously licensed, General Dynamics shall be restricted to operating the diesel generator units to no greater than 500 hr/yr of operation each based on a twelve-month rolling total. General Dynamics shall operate and maintain hour meters on each diesel unit. Compliance with hours of operation limits shall be demonstrated by a written log which shall include log entries of the date and length of operation for all times that the diesel units are operated. Back-up generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Back-up generators are not to be used for prime power when reliable offsite power is available.

The following is a summary of the BPT analysis for Generator #1 (2.4 MMBtu/hr) and Generator #2 (2.1 MMBtu/hr):

- a. The back-up generators shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.

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- b. 06-096 CMR 103 regulates PM emission limits and establishes a PM emission limit of 0.3 lb/MMBtu. The PM₁₀ limits are derived from the PM limits.
- c. 06-096 CMR 106 regulates fuel sulfur content, however in this case a BPT/BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
- d. NO_x, CO, and VOC emission limits are based on previous license limits which were based upon AP-42 data dated 10/96.
- e. Visible emissions from each back-up generator shall each not exceed 20% opacity on a six (6) minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

2. Fire Pump Diesel Unit

General Dynamics operates a diesel fire-pump unit designated Fire-Pump #1. The fire-pump is located in the Boiler House. Fire-Pump #1 has a maximum heat input capacity of 1.1 MMBtu/hr and was manufactured and installed in 2001. The fire-pump diesel was manufactured and purchased before the applicability date of and is therefore not subject to New Source Performance Standards 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

As previously licensed, General Dynamics shall be restricted to operating the diesel fire-pump to no greater than 500 hr/yr of operation each based on a twelve-month rolling total. General Dynamics shall operate and maintain an hour meters on the diesel fire-pump. Compliance with hours of operation limit shall be demonstrated by a written log which shall include log entries of the date and length of operation for all times that the diesel fire-pump is operated. The diesel fire-pump is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source.

The following is a summary of the BPT analysis for the Fire-Pump Diesel:

- a. The Fire-Pump Diesel shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
- b. 06-096 CMR 103 regulates PM emission limits and establishes a PM emission limit of 0.3 lb/MMBtu. The PM₁₀ limits are derived from the PM limits.
- c. 06-096 CMR 106 regulates fuel sulfur content, however in this case a BPT/BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.

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- d. NO_x, CO, and VOC emission limits are based on previous license limits which were based upon AP-42 data dated 10/96.
- e. Visible emissions from the Fire-Pump Diesel shall not exceed 20% opacity on a six (6) minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period.

F. Chrome Plating

General Dynamics makes use of several chrome electroplating lines to plate metal parts with several layers of chrome. Each line consists of several tanks that are used in series to prepare, chrome plate, post-plating treat and rinse the metal parts. Solutions in the plating tanks emit particulate matter and chrome emissions that must be controlled. Chrome is one of the hazardous air pollutants (HAP) that poses a potential health threat in urban areas. For this reason, EPA promulgated 40 CFR Part 63, Subpart N "National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks" (40 CFR Part 63, Subpart N) for both major and area sources. Area sources of HAPs emit less than 10 tons per year (ton/yr) of a single HAP and/or 25 ton/yr of a combination of HAP. As General Dynamics is a facility that performs hard chromium electroplating and is an area source of Chrome emissions, the chrome plating tanks at the General Dynamics' facility are subject to 40 CFR Part 63, Subpart N.

General Dynamics' previous Air Emission License amendment (A-434-71-N-M), establishes a federally enforceable restriction on the total cumulative annual rectifier capacity of less than 60 million amp-hr/yr. This restriction establishes General Dynamics as a "Small Hard Chromium Electroplating Facility" as provided by 40 CFR 63.341 and 63.342(c)(3). In order to demonstrate compliance with the above restriction, General Dynamics shall maintain a record of the actual cumulative rectifier capacity based on a rolling twelve-month total. Compliance shall be determined monthly by adding the previous 11-month capacities to the current capacity.

Chromium Emissions Standards as established in 40 CFR 63.342 and previous licenses:

The standard established in 40 CFR Part 63, Subpart N for chromium emissions from a "Small Hard Chromium Electroplating Facility" is 0.03 milligrams per dry standard cubic meter (mg/dscm). General Dynamics' previous Air Emission License (A-434-71-L-M/R), as well as subsequent Air Emission License amendments (A-434-71-M-M, A-434-71-N-M, A-434-71-O-M) established a "State-only" emission limit for chromium from the emissions at no greater than 0.015 mg/dscm.

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As previously licensed, General Dynamics shall be subject to an annual chrome emissions restriction of no greater than 0.1 ton/yr, based on a twelve-month rolling total. In order to demonstrate compliance, General Dynamics shall maintain a chrome emissions log which shall include calculations of chrome emissions based on a 0.03 mg/dscm concentration, the flow rates for each piece of control equipment and the time at which flow rates are altered as part of air balancing operations in the system.

Work Practice Standards as established in 40 CFR 63.342 and previous licenses:

General Dynamics must comply with the work practice standards found in 40 CFR Part 63.342(f), including the following:

- General Dynamics shall develop and maintain an "Operation and Maintenance Plan". The plan shall incorporate the applicable requirements of 40 CFR Part 63.342(f)(3) and shall be available for inspection upon request;
- At all times, including periods of startup, shutdown and malfunction, General Dynamics shall operate and maintain chrome plating equipment, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices and consistent with the facility's operation and maintenance plan.

As established in General Dynamics' Air Emission License (A-434-71-L-M/R), General Dynamics shall record any actions taken during malfunctions which were inconsistent with the "Operation and Maintenance Plan" and notify the Department within 2 working days. A letter shall be sent to the Department within 7 working days detailing the event including the actions taken.

Compliance Standards as established in 40 CFR 63.343:

General Dynamics operates a Packed Bed Scrubber (PBS) and a Fiber-bed Mist Eliminator (FBME) to control emissions from the chrome plating tanks. The three chrome plating lines are the Miscellaneous Parts Line, the Large Barrel Plating Line and the Small Barrel Plating Line, designated Lines #3, #4 and #5, respectively. General Dynamics plans on replacing the existing PBS with a new, 3-stage, composite mesh pad system. The new mesh pad scrubber system, the HMF-74 HexMaster Chrome Dry Scrubbing System, is manufactured by the Duall Division of the Met-pro Corporation and is designed to achieve mist elimination of 99% at greater than 5 microns and achieve outlet concentrations of no greater than 0.015 mg Cr⁺⁶/dscm. This system is specified to meet the new source MACT for hard chrome electroplating operations under Part 63 Subpart N.

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Emissions from tanks from Line #3 (Tanks #1, #6, #7, #8 and #9) are captured and exhausted to the new mesh pad scrubber system. The new mesh pad system is a wet scrubber. In the new mesh pad scrubber, a water mist is sprayed into the gas stream. Water droplets come into contact with the particulate and chrome particles in the gas stream and the particles are captured in the water droplets. The dirty water droplets accumulate, are collected and removed. The new mesh pad system further cleans the gas stream by means of composite mesh material that provides surface area for small dirty water droplets to accumulate and by means of a mist cleaning spray on the mesh material, the dirty particulate laden water drops out of the gas stream. General Dynamics shall comply with the applicable compliance provisions established in 40 CFR Part 63.343. As required by 40 CFR Part 63.343(c)(1)(ii), General Dynamics shall monitor and record the pressure drop across the new mesh pad system at least once each day during the periods of time that the scrubber is in operation. As established by 40 CFR Part 63.343(c)(1)(ii), General Dynamics shall establish the compliant pressure drop value at the time of the initial performance test. As established by 40 CFR Part 63.343(c)(1)(i) and (ii), compliance with the chrome emission limits from the new composite mesh pad system discharge is based on the pressure drop across the system being within ± 2 inch of water column of the three-run average pressure drop value established during the initial or most recent passing performance test.

Emissions from tanks from Line #4 (Tanks #21, #22, #23 and #34) and Line #5 (Tanks #41, #42, #43, #44, #45, #49, #50 and #52) are captured and exhausted to the FBME. The FBME is a dry scrubber. The FBME consists of an initial wet composite mesh pad control unit designed to remove the majority of particles and to prevent plugging of the fiber-bed system. The FBME consists of a mesh pad mist eliminator, pre-filters followed by fiber bed filters. The system is designed to achieve 99.5% removal of particles equal to or smaller than 3 microns and 100% of particles greater than 3 microns. FBME technology meets that new source MACT for hard chrome electroplating operations under Part 63 Subpart N. As required by 40 CFR Part 63.343(c)(3)(ii), General Dynamics shall monitor and record the pressure drop across the FBME scrubber system once per day during the periods of time that the scrubber is in operation. Compliance with the chrome emission limits from the FBME scrubber discharge is based on the pressure drop being within ± 1 inch of water column of the three-run average pressure drop value established during the most recent passing performance test.

Performance Test Requirements and Test Methods as established in 40 CFR 63.344:

General Dynamics shall conduct an initial performance test on the new mesh pad system within 6 months of initial start-up of the system. The testing shall be done in accordance with 40 CFR Part 63.344 and 40 CFR Part 63.7.

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In accordance with 40 CFR Part 63.344 and 40 CFR Part 63.7, General Dynamics shall demonstrate, through compliance testing, compliance with the above listed chrome emission restrictions once every two years.

Chrome testing shall be performed in accordance with the EPA Method 306 or Method 306A or an alternate test method if the test method has been validated using Method 301, Appendix A of Part 63 and if approved by the Department.

Record Keeping Requirements as established in 40 CFR 63.346:

In accordance with 40 CFR Part 63.346(a), General Dynamics shall fulfill the recordkeeping requirements for the applicable tanks and control devices for the chrome plating process at the Saco facility. The record shall incorporate the requirements of 40 CFR Part 63.346(b)(1) through (16).

Record Keeping Requirements as established in 40 CFR 63.347 and previous licenses:

In accordance with 40 CFR Part 63.347(h), General Dynamics shall prepare a summary report documenting the ongoing compliance status of the Saco facility. The report shall incorporate the requirements of 40 CFR Part 63.346(g)(3)(i) through (xiii). The report shall be completed annually, retained on site and made available to the MEDEP and/or EPA upon request. General Dynamics shall report required results for each monitoring device. In accordance with 40 CFR Part 63.347(h)(2), if exceedances occur, or at the request of the Department or EPA, the report shall be submitted to the Department semiannually.

Particulate Matter Emissions restrictions and testing requirements:

As per Air Emission License amendment A-434-71-N-M, General Dynamics is restricted to annual particulate matter (PM) emissions from the discharge of the new mesh pad system and FBME of no greater than 0.5 ton/yr, based on a twelve month rolling total. General Dynamics shall maintain a record of annual PM emissions from the new composite mesh pad system and FBME which shall include calculations of PM emissions based on a PM emission rate of 0.6 mg/dscm, equipment flow rates and the hours of operation for the chrome plating equipment. The record shall also include entries of the times when flow rates are altered as part of air balancing operations in the system.

General Dynamics' previous Air Emission License amendment (A-434-71-N-M) also established a PM emission limit from both the PBS and the FBME of no greater than 0.6 mg/dscm. Compliance with the PM emission restriction shall be demonstrated through testing that is to be undertaken once every 4 years.

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Porous Pots:

The chrome plating lines at General Dynamic's facility makes use of eight porous pot systems that are used to extend the bath life of the chrome plating tanks. The porous pot systems are located in the two process tanks of the Chrome Reclamation Unit. Each process tank contains four porous pot systems that consist of a semi-permeable membrane (porcelain pot) that separates a cathode plate from an anode plate. An applied power source (rectifier) generates a current across the cathode and anode which causes iron and other contaminant metal ions from the plating solution to pass through the membrane and accumulate in the cathode chamber of the porous pot. Once contained in the chamber, the contaminants are removed periodically for disposal. This process also converts trivalent chromium back into hexavalent chromium. After purification, the chromium solution can be returned to the plating tanks for further use. This results in the generation of less chromium hazardous waste. Emissions from the porous pots are to be controlled by either the new Duall composite mesh bed scrubber or the CECO fiber bed mist eliminator.

G. 40 CFR 63, Subpart WWWWWW

General Dynamics' Saco facility undertakes several plating and polishing processes that are subject to 40 CFR 63, Subpart WWWWWW (National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations). These processes include electro-polishing operations, sodium dichromate sealing, dry mechanical polishing, chrome stripping/reverse etching, and as mentioned above, the tin/lead/nickel plating line and the manganese phosphate coating line.

General Dynamics shall comply with the requirements of Subpart WWWWWW no later than July 1, 2010, which is two years from the date of publication of this rule in the Federal Register. In accordance with 40 CFR 63.11509(a)(3), General Dynamics is required to submit the Initial Notification no later than 120 days from July 1, 2008. The initial notification was submitted to EPA on October 28, 2008. The Initial Notification include the information specified in 40 CFR 63.9(i) through (iv) and 40 CFR 63.11509(a)(1) and (2).

H. Tin/Lead/Nickel Plating

General Dynamics makes use of a tin/lead/nickel plating line to plate metal parts with several metal coating layers. Each line consists of several tanks that are used in series to prepare, tin/lead plate, nickel plate, rinse and deoxidize the metal parts. Emissions associated with the tin/lead/nickel plating tanks include particulate matter, nickel, lead and hydrochloric acid (HCl).

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BPT for the control of these emissions is achieved by capturing and exhausting the tank emissions to the PBS wet scrubber.

As established in General Dynamics Air Emission License (A-434-71-L-M/R), General Dynamics is restricted to 800 hours of operation annually of the tin/lead/nickel plating line. Compliance with this restriction shall be demonstrated through an operations log which shall include entries of operational dates and times.

Emissions limits for nickel, lead and HCL were established in Air Emission License (A-434-71-L-M/R). As previously licensed, General Dynamics shall be subject to an annual emissions restriction of no greater than 0.1 ton per year (ton/yr) of nickel, 0.2 ton/yr of lead and 1.5 ton/yr of HCl. Compliance with these restrictions shall be based on mass balance of the tin/lead plating process.

General Dynamics shall maintain a monthly record calculating emissions from the tin/lead/nickel plating process where the emissions are equal to the amount of raw material initially in the tanks plus the amount of material added minus the amount of material plated onto the final product.

Also as previously licensed, General Dynamics is restricted to emissions from the tin/lead/nickel plating process of no greater than 0.6 mg/dscm of nickel, 1.4 mg/dscm of lead and 0.3425 lb/hr of HCl.

As discussed in Section II, Paragraph G, in this Finding-of-Fact, the tin/lead/nickel plating process at the General Dynamics' Saco facility is subject to 40 CFR 63, Subpart WWWW (National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations).

I. Manganese Phosphate Plating

General Dynamics utilizes a manganese phosphate plating process that was not included on the facility's previously air emission license although it is an existing source at the facility. The manganese phosphate plating line consists of a heated bath containing a manganese solution and phosphoric acid solution, a caustic cleaner tank and sealant and several rinse tanks. Historically, this line was considered an insignificant source of emissions.

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General Dynamics has attempted to quantify emissions from the manganese phosphate plating line by using the EPA Metal Finishing Facility Risk Screening Tool (MFFRST) in 1999. This method resulted in an estimated emissions concentration of 0.186 milligrams per cubic meter (mg/m^3). As the tanks ventilation rate is approximately 3900 cubic feet per minute (cfm), the daily emission rate calculates to an estimated 0.0652 pounds per day (lbs/day).

The above method of determining the emissions from the manganese phosphate plating line has questionable reliability and the Department will require a more accurate analysis of the emissions from this process. The Department has determined that emissions testing shall be required to determine the emissions from this process. General Dynamics shall undertake stack testing for manganese emissions within one year of the signature date of this Air Emission License.

To satisfy BACT for the manganese phosphate plating process, General Dynamics shall be restricted to annual manganese emissions of no greater than 0.1 ton/yr, based on a twelve-month rolling total until further testing at the facility provides General Dynamics and the Department with better emissions data from this process.

General Dynamics shall maintain a record of manganese emissions which shall include manganese emissions calculations based on the estimated emission rate of 0.0652 lb/day, the ventilation rate of 3900 cfm and the total monthly operation time for the manganese phosphate plating.

As discussed in Section II, Paragraph G, in this Finding-of-Fact, the manganese phosphate plating line at the General Dynamics' Saco facility is subject to 40 CFR 63, Subpart WWWW (National Emission Standards for Hazardous Air Pollutants: Area Source Standards for plating and Polishing Operations).

J. Spray Booth

General Dynamics operates a spray booth in which the facility applies coatings to the some of the products manufactured at the Saco facility. To meet the customer specifications for the military aircraft gun systems, conventional spray gun applications are required. General Dynamics' Air Emission License (A-434-71-L-M/R) established the BPT requirements for the spray booth operation. Those requirements include the following:

- The use of high volume/low pressure (HVLV) spray guns with maximum application rates of no greater than 0.75 gallons per hour (gal/hr) for non-aircraft gun coating;

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- Conventional spray systems with maximum application rates of no greater than 0.75 gal/hr (averaged over a 24-hour period) may be used on aircraft gun systems;
- Compliance with the above hourly restriction for aircraft gun systems shall be demonstrated through recordkeeping indicating the volume of coatings applied to the material on a daily basis;
- General Dynamics shall limit the use of Chromium VI in its coatings to no greater than 200 lb/yr (0.1 ton/yr) based on a twelve-month rolling total;
- General Dynamics shall be restricted to using only one spray gun at any one time in the spray booth;
- General Dynamics is required to utilize paint arrestors followed by a two-stage filtration system consisting of a pre-filter and a HEPA filter to remove PM from the spray booth exhaust;
- General Dynamics shall measure the pressure drop across the two-stage filtration system once per day and record the pressure drop daily in a log to be located at the filtration system;
- General Dynamics shall utilize activated charcoal filter trays to reduce the VOC emissions from the spray booth operations;
- The carbon filter trays shall be changed on a floating schedule which shall be based on the VOC loading rate, the volume of activated carbon present in the filters, initial saturation tests and theoretical breakthrough curves provided by the manufacturer of the carbon filter trays;
- General Dynamics shall maintain a log documenting the filter tray change dates.

General Dynamics' Air Emission License amendment (A-434-71-M-M) established an annual VOC emissions restriction from the spray booth operation of no greater than 3885 pounds per year, based on a twelve-month rolling total. Adherence to this restriction maintained that the General Dynamics' spray booth operations were below the applicability threshold of Maine's rule 06-096 CMR 129, *Surface Coating Facilities*, (last amended on March 3, 1998). In order to maintain flexibility to satisfy any increase in the need for coating any of the facility's products as well as maintaining that the spray booth operation is below the 06-096 CMR 129 applicability threshold, General Dynamics has proposed to increase the facility's VOC emission limit to no greater than 1500 pounds per month (lb/month) and 9 ton/yr, based on a twelve-month rolling total. As previously licensed, compliance with this VOC restriction shall be based on recordkeeping which indicates the coating usage (in units of gallons) and the VOC content (in units pounds per gallon) of the coatings. The emissions record shall also indicate General Dynamics' Chromium VI usage. General Dynamics shall maintain the spray booth VOC emission record on a monthly as well a twelve-month rolling total basis.

Air emission licenses typically establish opacity limits for spray booth operations, however, General Dynamics' previous licenses did not establish an opacity limit for the spray booth operations at the Saco facility. General Dynamics has proposed an opacity limit for the spray booth operation exhaust of no greater than 10% on a 6-minute block average basis except for no more than one 6-minute block average in a 1-hour period.

K. Evaporator

At the General Dynamics facility, cutting and machining of metal parts is undertaken routinely. The cutting and machining require the use of machine oils to cool the metal parts and the process equipment. After use the hot machine oils drain into a capture basin and are cooled by a coolant solution loop. The coolant solution is a mixture of water and a coolant additive. During these operations the coolant solutions becomes contaminated with dirt, grime and machine oils. In order to minimize the facility's coolant solution usage, General Dynamics makes use of a steam heated evaporator to evaporate water out of the coolant so that it may be cleaned and reused. During the evaporation process some of the VOC content of the coolant is evaporated away. General Dynamics makes use of three types of coolant solution, Tech Cool 35075 with a VOC content of 0.11lb/gal, Syntilo 9970 with a VOC content of 0.7 lb/gal and Syntilo 9954 with a VOC content of 0.04 lb/gal, all as used.

Air Emission License amendment (A-434-71-M-M) established a throughput limit of coolant through the evaporator of no greater than 40,000 gal/yr, based on a quarterly rolling total. Assuming the worst case scenario that General Dynamics only runs the higher VOC content coolant through the evaporator, 100% of the VOCs are vaporized and a dilution ratio of 5:1, the maximum VOC emissions from the evaporator process calculates to 2.56 ton/yr.

As established in General Dynamics Air Emission License (A-434-71-L-M/R), General Dynamics shall maintain a record on a quarterly basis, of the amount of coolant (in gallons) and type of coolant (including VOC content in pounds per gallon as indicated by MSDS sheets) processed through the evaporator.

The evaporator has been a source of visible emissions due to machine oil carryover in the coolant. Visible emissions from the machine oil contamination has not yet been found to exceed the visible emissions restriction for general processes as established by 06-096 CMR 101, *Visible Emissions Regulation*, (last amended on May 18, 2003). General Dynamics has agreed to continue efforts to remove machine oils from the coolant mixture prior to the evaporation process.

L. Shot Blasting

General Dynamics makes use of several shot blast units to surface treat metal parts prior to coating or plating at their Saco facility. Many of these units are self-contained and do not exhaust to the ambient air. However, General Dynamics operates three rotary shot blast tables and two barrel shot blast units. Fine steel shot entrained in high velocity/high flow rate air streams is fired at the metal surfaces to remove oxidation, metal fragments and other buildups.

The pollutant of concern from this process is particulate matter (PM). General Dynamics makes use of a cyclone and fabric filter baghouse combination to control PM from each of the five above mentioned shot blast units. As previously license, BPT for the shot blast units is the use of the cyclone/fabric filter baghouse control devices for each unit. General Dynamics shall maintain a log documenting all routine and non-routine maintenance for the shot blast cyclone/baghouse units.

The shot blast process at General Dynamics is subject to the General Process Source visible emissions restriction as established in 06-096 CMR 101, *Visible Emissions Regulation*, (last amended on May 18, 2003). Visible emissions from the each shot blast baghouse shall not exceed an opacity of 10 percent on a six-minute block average basis, except for no more than 1 six-minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed five percent opacity.

Fugitive visible emissions from the shot blast process (emissions other than from the baghouse) shall not exceed an opacity of 20%, except for no more than five minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period. [06-096 CMR 101]

M. Foam-In-Place

General Dynamics makes use of a foam-in-place process which provides safe packaging to the facility's products prior to shipping. The process makes use of two polyurethane products which, when mixed together, produces a rigid polyurethane material with a foam like appearance. The material is CFC and HCFC free, however, small quantities of VOCs and HAPs are present in the material, which include Methylene diphenyl diisocyanate (MDI) and Glycol ethers.

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General Dynamics' previous Air Emission License (A-434-71-L-M/R) established annual VOC and HAP emission restrictions of no greater than 100 and 355 pounds per year (lb/yr), respectively, based on a twelve-month rolling total. General Dynamics currently emits far less than this restriction. The Department has determined that continuing to maintain a record of this process is of no value and General Dynamics may discontinue maintaining the emissions record for the Foam-In-Place process.

N. Solvent Degreasers

General Dynamics makes use of between 3 and 10 portable and stationary solvent metal cleaners (solvent degreasers) depending upon the needs of the facility. The solvent degreasers at the General Dynamics' Saco facility are subject to 06-096 CMR 130, *Solvent Degreasers* (last amended on June 28, 2004). Depending on the degreaser, General Dynamics makes use of either Ethanol (approximately 15 gal/yr), MEK solvent (approximately 85 gal/yr) and Isopropyl Alcohol (approximately 10 gal/yr).

As previously licensed, General Dynamics shall be limited to an annual VOC emissions restriction of no greater than 3.0 ton/yr, based on a twelve-month rolling total.

General Dynamics shall maintain a record of solvent use that shall include the amount, type of solvent added to the solvent degreasers and the dates that the solvent was added and mass balance calculations to determine the quantity of VOC and HAP emissions. For purposes of record keeping, the amount of solvent used shall be considered as the difference between the amount of solvent added and the amount of solvent removed. The record shall be maintained on a monthly and a twelve-month rolling total basis.

In accordance with Maine's rule *Solvent Degreasers*, 06-096 CMR 130, Section 1(B), the following are exempt from the requirements of 06-096 CMR 130:

- (1) A solvent cleaner using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mm Hg, or less, at 20° C (68° F);
- (2) Wipe cleaning; and
- (3) Cold cleaning machines using solvents containing less than or equal to 5% VOCs by weight.

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If, in the future, General Dynamics switches to a solvent that contains less than 5% VOC for use in the parts washers, to satisfy recordkeeping requirements General Dynamics need only keep a copy of the MSDS sheet that demonstrates the VOC content of the solvent on file at the Saco facility.

1. In accordance with Maine's rule *Solvent Degreasers*, 06-096 CMR 130, Section 3(A) and (B), General Dynamics shall be subject to the following compliance standards:
 - A. Immersion cold cleaning machines shall have a freeboard ratio of 0.75 or greater unless the machines are equipped with covers that are kept closed except when parts are being placed into or being removed from the machine.
 - B. Immersion cold cleaning machines and remote reservoir cold cleaning machines shall:
 - (1) Have a permanent, conspicuous label summarizing the operating requirements in Subsection 3 below.
 - (2) Be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than six inches shall constitute an acceptable cover.
 - (3) Cold cleaning machines shall be operated in accordance with the following procedures:
 - (a) Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container;
 - (b) Cleaned parts shall be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts shall be positioned so that solvent drains directly back to the cold cleaning machine;

- (c) Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray at a pressure that does not exceed 10 pounds per square inch gauge (psig);
- (d) The owner or operator shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip;
- (e) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the cold cleaning machine;
- (f) When a pump-agitated solvent bath is used, the agitator shall be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used;
- (g) Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately, and the wipe rags or other sorbent material shall be immediately stored in covered containers for disposal or recycling;
- (h) Work area fans shall be located and positioned so that they do not blow across the opening of the degreaser unit; and
- (i) The owner or operator shall ensure that the solvent level does not exceed the fill line.

O. Firing Range

General Dynamics makes use of an on-sight indoor firing range in a ventilated building to test weapons manufactured at their Saco facility. Historically, emissions from the firing range at the General Dynamics' Saco facility were considered to be insignificant and emissions from these activities were considered unquantifiable. However, In February, 2008, EPA published a draft Section 15 to EPA's AP-42, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources* (AP-42) which provides proposed emission factors for the firing of various ammunitions. General Dynamics undertook an estimation of emissions from the weapons testing activities based on the draft Section 15 of AP-42.

Results from General Dynamics' calculations of firing range emissions resulted in negligible emissions of all of the criteria pollutants except carbon monoxide (CO) and lead (Pb). Emissions from CO and Pb were estimated at approximately 1.75 ton/yr and 4.1 lb/yr, respectively. The small amount of emissions and the high cost of any control device to control these emissions make the addition of any control device impractical and financially infeasible. To satisfy BACT for this activity, General Dynamics shall maintain a record of emissions which shall include the amount and type of ordinance fired at the facility's firing range and an estimation of annual emissions of CO and Pb.

P. Annual Emissions

General Dynamics is restricted to the following based on a twelve-month rolling total:

Total Licensed Annual Emissions for the Facility (ton/yr)
 (used to calculate the annual license fee)

Equipment	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	HCl	Ni	Pb	Mn	Cr	Total HAP
Boilers	10.6	10.6	39.6	18.4	2.0	0.4	-	-	-	-	-	-
Heat Treat	1.1	1.1	0.1	2.1	1.7	0.1	-	-	-	-	-	-
Generators	0.3	0.3	0.1	5.0	1.1	0.4	-	-	-	-	-	-
Fire Pump	0.1	0.1	0.01	0.7	0.1	0.1	-	-	-	-	-	-
Cr. Plating	-	-	-	-	-	-	-	-	-	-	0.1	0.1
Sn/Pb/Ni Plating	-	-	-	-	-	-	1.5	0.1	0.2	-	-	1.8
Mn Plating	-	-	-	-	-	-	-	-	-	0.1	-	0.1
Spray Booth	-	-	-	-	-	9.0	-	-	-	-	0.1	0.1
Evaporator	-	-	-	-	-	2.6	-	-	-	-	-	-
Foam-in-Place	-	-	-	-	-	0.1	-	-	-	-	-	0.18
Degreasers	-	-	-	-	-	3	-	-	-	-	-	0.1
Firing Range	-	-	-	-	1.8	-	-	-	0.01	-	-	0.01
Totals	12.1	12.1	39.8	26.2	6.7	15.7	1.5	0.1	0.2	0.1	0.2	2.4

III. AMBIENT AIR QUALITY ANALYSIS

General Dynamics previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards. The Department has determined that an additional ambient quality analysis is not required for this Air Emission License renewal.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-434-71-Q-R/A subject to the following conditions:

Severability: The invalidity or unenforceability of any provision, or part thereof, of this Air Emission License shall not affect the remainder of the provision or any other provisions. This Air Emission License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 CMR 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

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- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.

- (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 CMR 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

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- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

- (16) Boilers #1, #2 and #3
- A. General Dynamics may fire #6 fuel oil, #2 fuel oil or natural gas in the Boilers #1, #2 and #3. The #6 fuel oil fired in the boilers shall not exceed a sulfur content of 0.7% sulfur by weight. General Dynamics shall fire only #2 fuel oil which meets the criteria in ASTM D396 for #2 fuel oil in Boilers #1, #2 and #3. [06-096 CMR 115, BPT]
 - B. General Dynamics may also fire up to but no greater than 10,000 gal/yr of on-sight generated waste oil combined in Boilers #1, #2 and #3. Waste oil fired in the boilers shall have a sulfur content of no greater than 0.7% sulfur by weight. [06-096 CMR 115, BPT]
 - C. General Dynamics shall be restricted to a facility wide boiler heat input restriction of 90,000 MMBtu/yr based on a twelve-month rolling total basis. Compliance shall be determined monthly by adding the previous 11-month total capacities to the current month's total capacity. [06-096 CMR 115, BPT]
 - D. Compliance with the facility wide boiler heat input restriction and sulfur restrictions shall be documented via a fuel use record that will be maintained on a twelve-month rolling total basis. The fuel use record shall include the amount of fuel fired, either #6 fuel oil, #2 fuel oil or natural gas, certification of meeting the sulfur content restrictions and/or ASTM D396 criteria for #2 fuel oil and calculations converting the fuel usage into MMBtu heat input.

In determining the heat input for the boilers, General Dynamics shall use daily metered fuel records that indicate the date and quantity of fuel consumed by the boilers. Heat input shall be calculated using the following formulas:

1. For #6 fuel use: Heat input equals (#6 fuel usage (in gallons) x 150,000 Btu per gallon of #2 fuel)
2. For #2 fuel use: Heat input equals (#2 fuel usage (in gallons) x 140,000 Btu per gallon of #2 fuel)
3. For natural gas use: Heat input equals (natural gas usage (in scf) x 1020 Btu per scf of natural gas)

E. Emissions from boilers #1, #2 and #3 each shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers when firing #6 oil	lb/MMBtu	0.2	-	-	-	-	-
	lb/hr	5.1	5.1	18.5	9.2	0.8	0.2
Boilers when firing #2 oil	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	3.1	3.1	12.8	3.6	0.9	0.1
Boilers when firing NG	lb/MMBtu	0.05	-	-	-	-	-
	lb/hr	1.3	1.3	0.02	2.5	2.1	0.1

[06-096 CMR 115, BPT]

F. Visible Emissions:

1. Visible emissions from each boiler stack, during periods when the associated boiler is firing #6 fuel oil, shall not exceed 30% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.
2. Visible emissions from each boiler stack, during periods when the associated boiler is firing #2 fuel oil, shall not exceed 20% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.
3. Visible emissions from each boiler stack, during periods when the associated boiler is firing natural gas, shall not exceed 10% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

[06-096 CMR 101]

(17) Boilers #4 and #5

- A. General Dynamics shall fire #2 fuel oil or natural gas in Boilers #4 and #5. General Dynamics shall fire only #2 fuel oil which meets the criteria in ASTM D396 for #2 fuel oil in Boilers #4 and #5.

[06-096 CMR 115, BACT/BPT]

B. Emissions from boilers #4 and #5 each shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers when firing #2 oil	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.3	0.3	1.1	0.3	0.08	0.01
Boilers when firing NG	lb/MMBtu	0.05	-	-	-	-	-
	lb/hr	0.1	0.1	0.01	0.2	0.2	0.01

[06-096 CMR 115, BACT/BPT]

C. Visible Emissions:

1. When firing natural gas, visible emissions from each boiler stack shall not exceed 10% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.
2. When firing #2 fuel oil, visible emissions from each boiler stack shall not exceed 20% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a 3-hour period.

[06-096 CMR 101]

(18) Heat Treat Units

A. General Dynamics shall fire natural gas only in the heat treat units.

[06-096 CMR 115, BACT/BPT]

B. Emissions from each heat treat unit shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
HT-0005	lb/hr	0.1	0.1	0.001	0.1	0.1	0.01
HT-0006	lb/hr	0.1	0.1	0.001	0.1	0.1	0.01
HT-6213	lb/hr	0.1	0.1	0.001	0.2	0.1	0.01
HT-A026	lb/hr	0.1	0.1	0.001	0.1	0.1	0.01

[06-096 CMR 115, BPT]

C. Visible emissions from each heat treat unit shall not exceed 10% opacity on a six-minute block average, except for no more than 2 six minute block averages in a 3-hour period. [06-096 CMR 101]

(19) Back-Up Generator and Fire Pump Diesel Units

A. General Dynamics shall be restricted to operating the back-up diesel generator units and the fire pump diesel unit no greater than 500 hr/yr each based on a twelve-month rolling total. General Dynamics shall operate and maintain hour meters on each diesel unit. [06-096 CMR 115, BPT]

- B. Compliance with hours of operation limits shall be demonstrated by a written log which shall include log entries of the date, length of operation and reason for all times that the diesel units are operated. [06-096 CMR 115, BPT]
- C. The back-up diesel generator units and the fire pump diesel unit shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% by weight. General Dynamics shall maintain a record of fuel purchase receipts identifying the fuel purchased for the back-up diesel generator units and the fire pump diesel unit as on-road diesel fuel. [06-096 CMR 115, BPT]
- D. Emissions from each engine shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Generator #1	lb/hr	0.7	0.7	0.1	10.6	2.3	0.8
Generator #2	lb/hr	0.6	0.6	0.1	9.3	2.0	0.7
Fire Pump #1	lb/hr	0.3	0.3	0.06	4.9	1.0	0.4

[06-096 CMR 115, BPT]

- E. Visible emissions from each engine shall each not exceed 20% opacity on a six-minute block average, except for no more than 2 six-minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(20) Chrome Plating

- A. Emissions from Line #3 (Tanks #1, #6, #7, #8 and #9) shall be captured and exhausted to the new composite mesh pad system. Emissions from Line #4 (Tanks #21, #22, #23 and #29) and Line #5 (Tanks #41, #42, #43, #44, #45, #49, #50 and #52) shall be captured and exhausted to the FBME. [40 CFR Part 63, Subpart N]
- B. General Dynamics shall be subject to a federally enforceable restriction on the total cumulative annual rectifier capacity of less than 60 million amp-hr/yr. [40 CFR Part 63, Subpart N]
- C. General Dynamics shall maintain a record of the actual cumulative rectifier capacity based on a rolling twelve-month total. Compliance shall be determined monthly by adding the previous 11-month total capacities to the current month's total capacity. [40 CFR Part 63, Subpart N]
- D. General Dynamics shall be subject to a "federally-enforceable" chromium emissions restriction of no greater than 0.03 milligrams per dry standard cubic meter (mg/dscm). [40 CFR Part 63, Subpart N]

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- E. General Dynamics shall be subject to a “state-only enforceable” chromium emissions restriction of no greater than 0.015 mg/dscm.
[06-096 CMR 115, BPT]
- F. General Dynamics shall be subject to an annual chrome emissions restriction of no greater than 0.1 ton/yr, based on a twelve-month rolling total. In order to demonstrate compliance, General Dynamics shall maintain a chrome emissions log which shall include calculations of chrome emissions based on a 0.03 mg/dscm concentration, the flow rates for each piece of control equipment and the time at which flow rates are altered as part of air balancing operations in the system. [06-096 CMR 115, BPT]
- G. General Dynamics shall conduct an initial performance test on the new mesh pad system within 6 months of initial start-up of the system. The testing shall be done in accordance with 40 CFR Part 63.344 and 40 CFR Part 63.7.
- H. General Dynamics shall demonstrate compliance with the above listed chrome emission restrictions through compliance testing to be conducted once every two years. Chrome emissions testing shall be performed in accordance with the EPA Method 306 or Method 306A or an alternate test method if the test method has been validated using Method 301, Appendix A of Part 63 and approved by the Department.
[06-096 CMR 115, BPT, 40 CFR Part 63, Subpart N]
- I. General Dynamics shall have and maintain an “Operation and Maintenance Plan”. The plan shall incorporate the requirements of 40 CFR Part 63.342(f)(3) and shall be available for inspection upon request.
[40 CFR Part 63, Subpart N]
- J. At all times, including periods of startup, shutdown and malfunction, General Dynamics shall operate and maintain chrome plating equipment, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices and consistent with the facility’s operation and maintenance plan. [40 CFR Part 63, Subpart N]

- K. As required by 40 CFR Part 63.343(c)(1)(ii), General Dynamics shall monitor and record the pressure drop across the new mesh pad system at least once each day during the periods of time that the scrubber is in operation. As established by 40 CFR Part 63.343(c)(1)(ii), General Dynamics shall establish the compliant pressure drop value at the time of the initial performance test. Compliance with the chrome emission limits from the new mesh pad system discharge is based on the pressure drop across the system being within ± 2 inch of water column of the pressure drop value established during the initial or most recent passing performance test. [40 CFR Part 63, Subpart N]
- L. As required by 40 CFR Part 63.343(c)(3)(ii), General Dynamics shall monitor and record the pressure drop across the FBME scrubber system once per day during the periods of time that the scrubber is in operation. Compliance with the chrome emissions limits from the FBME scrubber discharge is based on the pressure drop being within ± 1 inch of water column of the pressure drop value established during the most recent performance test. [40 CFR Part 63, Subpart N]
- M. Compliance with the emissions standards, operational standards, compliance provisions, recordkeeping and reporting requirements of 40 CFR Part 60, Subpart N shall be considered BPT for the Chrome Plating Lines at General Dynamics. [40 CFR Part 63, Subpart N]
- N. General Dynamics shall maintain an inspection and maintenance record for the applicable tanks and control devices for the chrome plating process at the Saco facility. The record shall incorporate the requirements of 40 CFR Part 63.346(b)(1) through (16). [40 CFR Part 63, Subpart N]
- O. In accordance with 40 CFR Part 63.347(h), General Dynamics shall prepare a summary report documenting the ongoing compliance status of the Saco facility. The report shall incorporate the requirements of 40 CFR Part 63.347(g)(3)(i) through (xiii). The report shall be completed annually, retained on site and made available to the MEDEP and/or upon request. General Dynamics shall report required results for each monitoring device. In accordance with 40 CFR Part 63.347(h)(2), if exceedances or deviations occur, or at the request of the Department or EPA, the report shall be submitted to the Department semiannually. [40 CFR Part 63, Subpart N]
- P. General Dynamics shall comply with the applicable emissions standards, work practice standards, operational standards, compliance provisions, recordkeeping and reporting requirements of 40 CFR Part 63, Subpart N. [40 CFR Part 63, Subpart N]

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- Q. General Dynamics shall be subject to a particulate matter (PM) emission limit from both the new composite mesh pad system and the FBME of no greater than 0.6 mg/dscm. [06-096 CMR 115, BPT]
- R. General Dynamics shall be restricted to an annual PM emissions limit from the discharge of the new mesh pad system and FBME of no greater than 0.5 ton/yr, based on a twelve month rolling total. General Dynamics shall maintain a record of annual PM emissions from the new mesh pad system and FBME which shall include calculations of PM emissions based on a PM emission rate of 0.6 mg/dscm, equipment flow rates and the hours of operation for the chrome plating equipment. The record shall also include entries of the times when flow rates are altered as part of air balancing operations in the system. [06-096 CMR 115, BPT]
- S. General Dynamics shall demonstrate compliance with the above PM emission restriction through compliance testing to be conducted once every four years. PM testing shall be performed in accordance with the EPA Method 5 [06-096 CMR 115, BPT, 40 CFR Part 63, Subpart N]
- T. Emissions from the porous pots shall be controlled by the new composite mesh pad scrubber and/or FBME wet scrubber. [06-096 CMR 115, BPT]
- (21) 40 CFR 63, Subpart WWWW
- A. General Dynamics' Saco facility undertakes several plating and polishing processes that are subject to 40 CFR 63, Subpart WWWW (National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations). These processes include electro-polishing operations, sodium dichromate sealing, dry mechanical polishing, chrome stripping/reverse etching, and as mentioned above, the tin/lead/nickel plating line and the manganese phosphate coating line.
[40 CFR 63, Subpart WWWW]
- B. General Dynamics shall comply with the requirements of Subpart WWWW no later than July 1, 2010, which is two years from the date of publication of this rule in the Federal Register.
[40 CFR 63, Subpart WWWW]

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(22) Tin/Lead/Nickel Plating

- A. General Dynamics is restricted to 800 hours of operation annually of the tin/lead/nickel plating line. Compliance with this restriction shall be demonstrated through an operations log which shall include entries of operational dates and times. [06-096 CMR 115, BPT]
- B. Emissions from the tin/lead/nickel plating line tanks shall continue to be captured and exhausted through the PBS wet scrubber. [06-096 CMR 115, BPT]
- C. General Dynamics shall be subject to an annual emissions restriction of no greater than 0.1 ton per year (ton/yr) of nickel, 0.2 ton/yr of lead and 1.5 ton/yr of HCl from the tin/lead/nickel plating line. Compliance with these restrictions shall be based on mass balance of the tin/lead/nickel plating process. [06-096 CMR 115, BPT]
- D. General Dynamics is restricted to emissions from the tin/lead/nickel plating process of no greater than 0.6 mg/dscm of nickel, 1.4 mg/dscm of lead and 0.3425 lb/hr of HCl. [06-096 CMR 115, BPT]
- E. General Dynamics shall maintain a monthly record calculating emissions from the tin/lead/nickel plating process where the emissions are equal to the amount of raw material initially in the tanks plus the amount of material added minus the amount of material plated onto the final product. [06-096 CMR 115, BPT]

(23) Manganese Phosphate Plating

- A. General Dynamics shall be restricted to annual manganese emissions of no greater than 0.1 ton/yr, based on a twelve-month rolling total until further testing at the facility provides General Dynamics and the Department with better emissions data from this process. [06-096 CMR 115, BACT]
- B. General Dynamics shall maintain a record of manganese emissions which shall include manganese emissions calculations based on the estimated emission rate of 0.0652, the ventilation rate of 3900 cfm and the total monthly operation time for the manganese phosphate plating line. [06-096 CMR 115, BACT]
- C. General Dynamics shall undertake stack testing for manganese emissions within one year of the signature date of this Air Emission License renewal. [06-096 CMR 115, BACT]

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(24) Spray Booth

- A. General Dynamics shall make use of high volume/low pressure (HVLP) spray guns with maximum application rates of no greater than 0.75 gallons per hour (gal/hr) for non-aircraft gun coating. [06-096 CMR 115, BPT]
- B. Conventional spray systems with maximum application rates of no greater than 0.75 gal/hr (averaged over a 24-hour period) may be used on aircraft gun systems. [06-096 CMR 115, BPT]
- C. General Dynamics shall limit the use of Chromium VI in its coatings to no greater than 200 lb/yr (0.1 ton/yr) based on a twelve-month rolling total. [06-096 CMR 115, BPT]
- D. General Dynamics shall be restricted to using only one spray gun at any one time in the spray booth. [06-096 CMR 115, BPT]
- E. General Dynamics is required to utilize paint arrestors followed by a two-stage filtration system consisting of a pre-filter and a HEPA filter to remove PM from the spray booth exhaust. [06-096 CMR 115, BPT]
- F. General Dynamics shall measure the pressure drop across the two-stage filtration system once per day and record the pressure drop daily in a log to be located at the filtration system. [06-096 CMR 115, BPT]
- G. General Dynamics shall utilize activated charcoal filter trays to reduce the VOC emissions from the spray booth operations. [06-096 CMR 115, BPT]
- H. General Dynamics shall change the carbon filter trays on a floating schedule which shall be based on the VOC loading rate, the volume of activated carbon present in the filters, initial saturation tests and theoretical breakthrough curves provided by the manufacturer of the carbon filter trays. [06-096 CMR 115, BPT]
- I. General Dynamics shall maintain a log documenting the filter tray change dates. [06-096 CMR 115, BPT]

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- J. General Dynamics shall be restricted to VOC emissions from the spray booth of no greater than 1500 pounds per month (lb/month) and 9 ton/yr, based on a twelve-month rolling total. Compliance with this VOC restriction shall be based on recordkeeping which indicates the coating usage (in units of gallons) and the VOC content (in units of pounds per gallon) of the coatings. General Dynamics shall maintain the spray booth VOC emission record on a monthly as well as a twelve-month rolling total basis. The emissions record shall also indicate General Dynamics' Chromium VI usage. [06-096 CMR 115, BPT]
- K. General Dynamics shall be restricted to an opacity limit for the spray booth operation exhaust of no greater than 10% on a 6-minute block average basis except for no more than one 6-minute block average in a 1-hour period. [06-096 CMR 101]

(25) Evaporator

- A. General Dynamics shall be subject to a throughput limit of coolant through the evaporator of no greater than 40,000 gal/yr, based on a quarterly rolling total. [06-096 CMR 115, BPT]
- B. General Dynamics shall be subject to an annual VOC emissions restriction from the evaporator process of no greater than 2.56 ton/yr, based on a quarterly rolling total. [06-096 CMR 115, BPT]
- C. General Dynamics shall maintain a record on a quarterly basis, of the amount of coolant (in gallons) and type of coolant (including VOC content in pounds per gallon as indicated by MSDS sheets) processed through the evaporator. [06-096 CMR 115, BPT]
- D. General Dynamics shall be restricted to an opacity limit from the evaporator operation exhaust of no greater than 20% on a 6-minute block average basis except for no more than one 6-minute block average in a 1-hour period. [06-096 CMR 101]

(26) Shot Blast

- A. General Dynamics shall continue to operate and maintain the cyclone and fabric filter baghouse combination as control of emissions from the shot blast process. [06-096 CMR 115, BPT]
- B. General Dynamics shall maintain a log documenting all routine and non-routine maintenance for the shot blast cyclone/baghouse units. [06-096 CMR 115, BPT]

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- C. Visible emissions from each shot blast baghouse shall not exceed an opacity of 10 percent on a six-minute block average basis, except for no more than 1 six-minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed five percent opacity. [06-096 CMR 101]
- D. Fugitive visible emissions from the shot blast process (emissions other than from the baghouse) shall not exceed an opacity of 20%, except for no more than five minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period. [06-096 CMR 101]

(27) Solvent Degreasers

- A. General Dynamics shall be limited to an annual VOC emissions restriction of no greater than 3.0 ton/yr, based on a twelve-month rolling total. [06-096 CMR 115, BPT]
- B. General Dynamics shall maintain a record of solvent use that shall include the amount, type of solvent added to the solvent degreasers and the dates that the solvent was added and mass balance calculations to determine the quantity of VOC and HAP emissions. For purposes of record keeping, the amount of solvent used shall be considered as the difference between the amount of solvent added and the amount of solvent removed. The record shall be maintained on a monthly and a twelve-month rolling total basis. [06-096 CMR 115, BPT]
- C. General Dynamics shall be subject to the following compliance standards:
 - 1. Immersion cold cleaning machines shall have a freeboard ratio of 0.75 or greater unless the machines are equipped with covers that are kept closed except when parts are being placed into or being removed from the machine.
 - 2. Immersion cold cleaning machines and remote reservoir cold cleaning machines shall:
 - a. Have a permanent, conspicuous label summarizing the operating requirements in Subsection c below;

- b. Be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than six inches shall constitute an acceptable cover;
- c. Cold cleaning machines shall be operated in accordance with the following procedures:
 - 1. Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container;
 - 2. Cleaned parts shall be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts shall be positioned so that solvent drains directly back to the cold cleaning machine;
 - 3. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray at a pressure that does not exceed 10 pounds per square inch gauge (psig);
 - 4. The owner or operator shall ensure that, when the cover is open, the cold cleaning machine is not exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between 1 and 2 meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip;
 - 5. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the cold cleaning machine;
 - 6. When a pump-agitated solvent bath is used, the agitator shall be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used;
 - 7. Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately, and the wipe rags or other sorbent material shall be immediately stored in covered containers for disposal or recycling;

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8. Work area fans shall be located and positioned so that they do not blow across the opening of the degreaser unit; and

9. The owner or operator shall ensure that the solvent level does not exceed the fill line.

[06-096 CMR 130]

D. If, in the future, General Dynamics switches to a solvent that contains less than 5% VOC for use in the parts washers, to satisfy record keeping requirements General Dynamics need only keep a copy of the MSDS sheet that demonstrates the VOC content of the solvent on file at the Saco facility. [06-096 CMR 115, BPT, 06-096 CMR 130]

(28) Firing Range

General Dynamics shall maintain a record of emissions which shall include the amount and type of ordinance fired at the facility's firing range and an estimation of annual emissions of CO and Pb. [06-096 CMR 115, BPT]

(29) General Process Sources

Visible emissions from any general process source including plating operations, solvent degreasing, evaporator operations and shot blasting operations shall not exceed an opacity of 20% on a six-minute block average, except for no more than 1 six-minute block average in a 1-hour period. [06-096 CMR 101]

(30) Fugitive Emissions

Visible emissions from a fugitive emission source (including material stockpiles, roadways and/or shot blast process) shall not exceed an opacity of 20%, except for no more than five minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period. [06-096 CMR 101]

(31) Annual Emission Statement

In accordance with *Emissions Standards*, 06-096 CMR 137 (last amended November 8, 2008), the licensee shall annually report to the Department the information necessary to accurately update the State's criteria pollutant emission inventory by means of:

- 1) A computer program and accompanying instructions supplied by the Department;

Or

- 2) A written emission statement containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, Maine 04333-0017

Phone: (207) 287-2437

General Dynamic's 2008 emission inventory statement must be submitted by July 1, 2009 or as specified in 06-096 CMR 137. Beginning with the 2009 annual emissions inventory, the submission deadline will move from July 1 to May 15. The 2009 emissions inventory must be reported no later than May 15, 2010.

(32) Air Toxics Emission Statement

In accordance with 06-096 CMR 137, General Dynamics shall report, no later than every three years (2005, 2008, 2011, etc.) or as otherwise stated in 06-096 CMR 137, the information necessary to accurately update the State's toxic air pollutants emission inventory in a format prescribed by the Department containing the information required in 06-096 CMR 137.

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, Maine 04333-0017

Phone: (207) 287-2437

General Dynamic's 2008 air toxics emission statement must be submitted by July 1, 2009 or as specified in 06-096 CMR 137. Beginning with the 2009 annual emissions inventory, the submission deadline will move from July 1 to May 15. The 2009 air toxics statement must be reported no later than May 15, 2010.

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- (33) General Dynamics shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).

DONE AND DATED IN AUGUSTA, MAINE THIS 29th DAY OF April 2009.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brooks for 7
DAVID P. LITZELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above

Date of initial receipt of application: May 29, 2008

Date of application acceptance: June 6, 2008

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality

