COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
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STATEMENT OF LEGAL AND FACTUAL BASIS

Metro Machine Corporation DBA
General Dynamics NASSCO-Norfolk
200 Ligon Street, Norfolk, Virginia 23523
Permit No. (TRO-60134)

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Metro Machine Corporation DBA General Dynamics NASSCO-Norfolk has applied for a Title V Operating Permit for its Norfolk facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Permit Writer:	Laura D. Corl (757) 518-2178	Date:	**October 22, 2014**
Regional Air Permits Manager:	Troy D. Breathwaite	Date:	**October 27, 2014**
Regional Director:	Maria R. Nold	Date:	**October 27, 2014**

I. FACILITY INFORMATION

Permittee
Metro Machine Corporation DBA
General Dynamics NASSCO-Norfolk
PO Box 1860
Norfolk, Virginia 23523

Responsible Official
Jeff Brooks
General Manager

Facility
Metro Machine Corporation DBA
General Dynamics NASSCO-Norfolk
200 Ligon Street
Norfolk, Virginia 23523

Contact Person
Donna Watkins, CHMM
Environmental Manager
(757) 543-6801 ext. 506

County-Plant Identification Number: 51-710-00034

Facility Description: NAICS 336611 – Ship Building and Repairing

This facility is engaged in activities related to ship building and repair. These activities include abrasive blasting, applying marine coatings, electroplating, woodworking, paint mixing, and degreasing. The facility also includes boilers producing steam for use onboard vessels while docked, generators, compressors, fire pumps, cranes, portable welders, portable heaters and forklifts. Other processes include air conditioner maintenance, use of adhesives, storage tanks and containers, gasoline and diesel fuel loading pumps, and an oil/water separator and treatment system.

This facility is a major source of PM/PM_{10}, VOC, NO_X, and HAPs. This source is located in an attainment area for all pollutants. The facility currently has three minor NSR permits: one was issued on August 1, 1984, and amended on April 23, 1986; another was issued on January 3, 1986; and the third was issued on June 26, 2002. The source is also subject to the Shipyard MACT, 40 CFR Part 63, Subpart II, to the RICE MACT, 40 CFR Part 63, Subpart ZZZZ, and to the Boiler MACT, 40 CFR Part 63, Subpart DDDDD. It is also subject to the ICE NSPS, 40 CFR Part 60, Subpart IIII.

II. COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit (April 8, 2014) has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, have been evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

III. EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
Boiler Operations						
1	1	Kewanee boiler H35-750-G02 (natural gas / No. 2 fuel oil) (1984)	32.0 mmBtu/hr	-	-	8/1/1984, amended 4/23/1986
2	2	Kewanee boiler H3S500-G (natural gas / No. 2 fuel oil) (1986)	20.9 mmBtu/hr	-	-	1/3/1986
Internal Combustion Engines Operations						
4	4	Caterpillar Model 35086 DITA, 8 cylinder, 4cycle, turbocharged, diesel generator (installed 2000)	1,087.8 HP	-	-	-
5	5	Caterpillar, Model #1300H DLQ CA, diesel air compressor engine (mfd 1994) (installed 2012) MACT ZZZZ	400 HP @ 1800 rpm	-	-	-
98	98	#1 Caterpillar, Model D3516B, 16 cylinders, 4 cycle, turbocharged, diesel generator (2002)	2,514 HP	-	-	6/26/2002
99	99	#2 Caterpillar Model D3516B, 16 cylinders, 4 cycle, turbocharged, diesel generator (2002)	2,514 HP	-	-	6/26/2002
100	100	Caterpillar diesel fueled Gen Set (2013) NSPS IIII, MACT ZZZZ	230 HP, 150 KW	-	-	-
Dry Dock Abrasive Blasting and Painting Operations						
21	-	Pier side interior / top side hand roll / brush and airless spray painting (constructed 1971)	7 gallons/hour (2 painters)	containment screens when airless spray guns are used	PM/PM_{10}	-
22	-	Outside machine shop hand roll / brush touch-up painting (constructed 1971)	3 gallons/hour (2 painters)	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
23	-	Paint shop priming – 60% hand roll / brush and 40% airless spray (constructed 1971)	7 gallons/hour (2 painters)	-	-	-
28	-	SPEEDE Dry dock painting (constructed 2002)	98 gallons/hour (16 painters)	containment screens when airless spray guns are used	PM/PM_{10}	6/26/2002
Degreaser Operations						
24	-	Maintenance shop degreaser (constructed 1990)	20 gallons	cover for degreaser and 15-second parts draining	VOC	-
25a	-	Outside machine shop degreaser (constructed 1990)	40 gallons	cover for degreaser and 15-second parts draining	VOC	-
25b		Outside machine shop degreaser (constructed 1990)	40 gallons	cover for degreaser and 15-second parts draining	VOC	
27a	-	Inside machine shop degreaser (constructed 1990)	20 gallons	cover for degreaser and 15-second parts draining	VOC	-
27b		Inside machine shop degreaser (constructed 1990)	20 gallons	cover for degreaser and 15-second parts draining	VOC	
29		Inside machine shop degreaser (constructed 2014)	180 gallons	Dishwasher type unit that is sealed when operated	NA	

IV. EMISSIONS INVENTORY

A copy of the 2013 emission inventory is attached. Emissions are summarized in the following table.

2013 Actual Emissions

	2013 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO_2	PM_{10}	NO_x
Facility Totals	17.0	1.7	0.01	4.175	2.6

V. Changes to the permit

This action is a reopening to create a significant modification to the Title V renewal permit issued January 13, 2014.

During an inspection on February 24, 2014, the inspector found a newly added generator (#100) which is subject to NSPS IIII and MACT ZZZZ. This unit needs to be added to the Title V, and in another subsequent inspection, a compressor engine (#5) was also discovered and is being added to the permit at the same time.

The facility has two large dry dock generators that act as both emergency generators, when the power fails, and as operational generators, when the dry dock needs to be moved out into the channel. The facility has decided to change the MACT ZZZZ status of their two large dry dock generators from Emergency generators to Limited Use generators because the MACT limits non-emergency operation time (for emergency generators) to less than 50 hours per generator. By switching to Limited Use, each generator can operate for no more than 100 hours per year for any reason. This permit incorporates this change as well.

A. Condition changes

Section II - Emission Units table was updated to add the IC engines that were not there and to remove the old dry dock from the permit. It has been removed from the facility.

Condition 6 was added to the boiler operations section to show that the boilers must operate in compliance with MACT DDDDD as of January 31, 2016.

Condition 8 and 9 were added. These are the specific requirements of the boiler MACT that apply to this source.

Condition 10 was updated to include the new boiler MACT requirements.

Condition 11 was added to include the reporting requirements of the boiler MACT.

Condition 12 was changed to remove the two dry dock generators (Units #98 and #99) from this condition because it would be in direct conflict with the following condition. ICE #5 was also added to this condition. See Streamlining section.

Condition 13 has been added to limit the operational hours of the Limited Use generators to 100 hours per calendar year.

Condition 14 has been added to include the requirement that the IC engines have a non-resettable hour meter on each engine.

Condition 15 and 16 have been changed by adding applicable Unit #s to this condition.

Condition 17 was added to include the NSPS IIII fuel requirements for Unit #100.

Condition 18 was changed to clarify that the PM emissions limits are for filterable emissions only.

Condition 19 added both Unit #5 and Unit #100.

Condition 20 was added to include the requirements of NSPS IIII and MACT ZZZZ for Unit #100.

Condition 21 was added to include the requirements of MACT ZZZZ for Unit #5.

Condition 22 was added to include the requirements of MACT ZZZZ for Unit #4.

Conditions 23 and 24 added both Units #5 and #100 to each condition.

Condition 25 added the hourly operational monitoring requirements for Units #4, #5, and #100.

Condition 26 added the hourly operational requirements for Units #98 and #99.

Condition 27 was updated to include the new recordkeeping requirements added for the previous conditions.

Conditions 28, 29, 37, and 42 were updated to remove the reference to emissions unit #10 which has been removed from the facility.

Condition 48 was changed to include the requirement to copy EPA on the semi-annual shipyard MACT reports.

Condition 58 was also changed to remove some engines that are no longer on site and to move Unit #5 to the significant emissions unit table.

Condition 59 was changed to remove NSPS IIII as an inapplicable regulation and to add the chrome MACT and the electroplating MACT for area sources as inapplicable requirements.

B. Streamlining

Condition 12 was streamlined to remove Units #98 and #99 from the condition. The underlying permit condition limits the dry dock generators to 500 hours per year. Because they are now going to be Limited Use generators, they are now being limited to a more stringent limit of 100 hours per year each.

VI. INSIGNIFICANT EMISSION UNITS

Five units have been removed from this list: Units #5, #6, #29, #31, and #32.

Unit #5 was moved to the Significant Emissions Unit list.

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9VAC5-80-720 C)
11	Enclosed bead blaster in outside machine shop	9 VAC 5-80-720 B	PM10	-
12	Enclosed bead blaster in boiler shop	9 VAC 5-80-720 B	PM10	-
13	Enclosed bead blaster in compressor / fire pump maintenance area	9 VAC 5-80-720 B	PM10	-
14	Enclosed bead blaster in inside machine shop	9 VAC 5-80-720 B	PM10	-
15	Enclosed bead blaster in electric shop	9 VAC 5-80-720 B	PM10	-
16	Air conditioner maintenance	9 VAC 5-80-720 B	VOC	-
66	Electroplating in electric shop	9 VAC 5-80-720 B	PM10, inorganic HAPs	-

Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9VAC5-80-720 C)
68	Woodworking operations in carpenter shop	9 VAC 5-80-720 B	PM10	-
69	Paint Mixing in paint shop	9 VAC 5-80-720 B	VOCs, VOHAPs	-
71	Maintenance shop touch-up painting (90% hand-applied; 10% airless spray)	9 VAC 5-80-720 B	VOCs, VOHAPs	-
72	Covered Metro 88 degreasers (2) in tool room (contains no solvents)	9 VAC 5-80-720 B	None	-
73	Spray can degreasers, cleaners, etc. in maintenance shop	9 VAC 5-80-720 B	VOCs, VOHAPs	-
74	Spray can degreasers, cleaners, etc. in outside machine shop	9 VAC 5-80-720 B	VOCs, VOHAPs	-
75	Spray can degreasers, cleaners, etc. in boiler shop	9 VAC 5-80-720 B	VOCs, VOHAPs	-
76	Spray can degreasers, cleaners, etc. in inside machine shop	9 VAC 5-80-720 B	VOCs, VOHAPs	-
77	Spray can degreasers, cleaners, etc. in electric shop	9 VAC 5-80-720 A	VOCs, VOHAPs	Not Applicable
81a	Waste oil storage tank in hazardous waste storage building next to OWTS #1	9 VAC 5-80-720 B	VOCs, VOHAPs	-
81b	Waste oil storage tank located next to OWTS #1	9 VAC 5-80-720 B	VOCs, VOHAPs	-
81c	Waste oil storage tank located next to OWTS#2	9 VAC 5-80-720 B	VOCs, VOHAPs	-
82	Propane storage is on the south side of OWTS #2 and welding gas storage is on the north side of OWTS #2	9 VAC 5-80-720 B	VOCs	-
83a	Underground gasoline storage tank near OWTS #2 and gasoline loading pumps	9 VAC 5-80-720 B	VOCs, VOHAPs	-
83b	Underground diesel storage tank near OWTS #2 and diesel loading pumps	9 VAC 5-80-720 B	VOCs, VOHAPs	-
89a	Underground #2 oil storage tank near boiler room	9 VAC 5-80-720 B	VOCs, VOHAPs	-
89b	Underground #2 oil storage tank near boiler room	9 VAC 5-80-720 B	VOCs, VOHAPs	-
93a	OWTS #1 - Oil/water separator and treatment system including processing tanks	9 VAC 5-80-720 B	VOCs, VOHAPs	-
93b	OWTS #2 - Oil/water separator and treatment system including processing tanks	9 VAC 5-80-720 B	VOCs, VOHAPs	-

[1]The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

VII. PUBLIC PARTICIPATION

The proposed permit was placed on public notice in the **Virginian-Pilot newspaper** from **Tuesday, September 9, 2014** to **Thursday, October 9, 2014**.