

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT <i>ENGINEERING DIVISION</i> APPLICATION PROCESSING AND CALCULATIONS	PAGES 5	PAGE 1
	APPL. NO. Below	DATE 7/2/2013
	PROCESSED BY T. Iwata	CHECKED BY

Northrop Grumman
500 – 800 N. Douglas St.
El Segundo, CA 90245
ID No.: 18294

EQUIPMENT DESCRIPTION:

Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
Process 2: SURFACE COATING					
System 2: COATING OPERATION, BLDG. WC 915					
SPRAY COATING OPERATION, NO. 3, 44 FT-9 IN W. X 46 FT L. X 25 FT H., 180 185 PREFILTERS, 80–24 IN. X 24 IN. X 2 IN. PLEAT FILTERS, 80–24 IN. X 24 IN. X 12 IN. HEPA FILTERS, 5-25 HP EXHAUST FANS A/N: 549028	D8			PM: (9) [Rule 404]; VOC: (10) [40 CFR 63 Subpart GG]; VOC: (9) [Rule 1124, 1171]	A63.4 A63.7 D322.1 E71.4 E71.9 E175.5 E193.1 H23.4 K67.1
SPRAY COATING OPERATION, NO. 2, 33 FT W. X 44 FT L. X 25 FT H., 153 150 PREFILTERS, 48–24 IN. X 24 IN. X 2 IN. PLEAT FILTERS, 48–24 IN. X 24 IN. X 12 IN. HEPA FILTERS, 3-25 HP EXHAUST FANS A/N: 549029	D11			PM: (9) [Rule 404]; VOC: (10) [40 CFR 63 Subpart GG]; VOC: (9) [Rule 1124, 1171]	A63.4 A63.7 D322.1 E71.4 E71.8 E175.5 E193.1 H23.4 K67.1
System 4: COATING OPERATION, BLDG. WC 905					
SPRAY COATING OPERATION, CER-1, 30 FT. W. X 30 FT. L. X 11 FT. H., 70 80 PREFILTERS, 70 80 – 24 IN. X 24 IN. X 2 17 IN. PANEL POCKET FILTERS, 70 80 – 24 IN. X 24 IN. X 17 IN. POCKET FILTERS, ONE 25.5 HP EXHAUST FAN A/N: 549031	D184			PM: (9) [Rule 404]; VOC: (10) [40 CFR 63 Subpart GG]; VOC: (9) [Rule 1124, 1171]	B27.2 B59.3 C1.10 C6.1 E175.3 H23.4 K67.6

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Equipment	ID No.	Connected To	Source Type/ Monitoring Unit	Emissions	Conditions
Process 4: EXTERNAL COMBUSTION					
System 1: BOILER, BLDG. WC 905					
BOILER, NATURAL GAS, SUPERIOR, MODEL X6-5-500-S15-STJ SUPER SEMINOLE , WATERTUBE, WITH LOW NOX BURNER, 4.2 MMBTU/HR WITH BURNER, NATURAL GAS, JOHNSON, MODEL NOXMATIC – A TYPE, WITH LOW NOX BURNER, 4.2 MMBTU/HR A/N 549032	D232		NOX: Process Unit	CO: 2000 PPMV [RULE 407], CO: 400 PPMV [RULE 1146.1], CO: 100 PPMV [RULE 1303(a)(1)], NOX: 9 PPMV [RULE 2005, 2012], PM: 0.1 GRAINS/SCF [RULE 409]	D332.2

A/N 549509: Title V permit revision application

BACKGROUND:

Northrop Grumman submitted A/N 549028, 29, 31 and 32 to correct discrepancies between the number of pre-filters listed on the permit descriptions for D8, D11 and D184 and the actual number installed in the equipment. Additionally, D184 contains a duplicate description of pocket filters that needs to be removed and the model number description on D232 needs to be corrected to match the boilerplate information. The equipment will operate as previously permitted and there will not be an emission increase with this project. The company also requested a change in the responsible official, the new official is Mr. Kevin Mitchell, VP Production Operations and Site Manager.

Northrop Grumman is a RECLAIM/Title V facility. A Title V renewal permit was issued to this facility on July 8, 2010. Northrop Grumman has proposed to revise their Title V renewal permit by correcting the equipment descriptions for D8, D11, D184 and D232. The proposed project is considered as a “minor permit revision” for RECLAIM pollutants, non-RECLAIM pollutants and hazardous air pollutants (HAPs) to the RECLAIM/Title V permit for this facility. This is the ninth revision since the last renewal.

The facility was last inspected on March 5, 2013 and was found to be operating in compliance. During the last two years, they received one NC for: (1) not submitting Semi-Annual Monitoring & Annual Compliance Certification reports (Title V reports) in a timely manner as required in Section K of the facility permit and (2) to report quarterly mass emissions of NOx electronically

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to the District Central Station for each Process Unit using correct reporting dates. They have not receive any public nuisance complaints in the last two years.

PROCESS DESCRIPTION:

Northrop Grumman is an aircraft manufacturing facility. They primarily design and build the F/A-18's center and aft fuselages. They will also be involved in the future production of the new F-35 Joint Strike Fighter. The new F-35 Joint Strike Fighter is the next generation strike fighter that has been designed using cutting-edge technologies. It will replace a wide range of aging fighter and strike aircraft, such as the F16, F/A18, A-6 and A-10, used by the U.S. Air Force, Navy, Marine Corps and allied defense forces worldwide.

EMISSION CALCULATIONS:

The equipment will be operated without any changes. AEIS emissions are the same from the previous applications.

A/N 549028 (Device D8):

Uncontrolled hourly PM10 emissions = 4.0 lbs/hr

Controlled hourly PM10 emissions = 0 lb/hr

Hourly VOC emissions = 6.3 lbs/hr

A/N 549029 (Device D11):

Uncontrolled hourly PM10 emissions = 1.93 lbs/hr

Controlled hourly PM10 emissions = 0 lb/hr

Hourly VOC emissions = 6.3 lbs/hr

A/N 549031 (Device D184):

Ceramic coatings (non-VOC) are sprayed in this booth. Cleaning performed using de-ionized water. PM10 emissions are low due to the dense, heavy characteristics of the water-based coating.

Uncontrolled hourly PM10 emissions = 0 lb/hr

Controlled hourly PM10 emissions = 0 lb/hr

A/N 549032 (Device no. D232):

	NOx	CO	PM10	ROG	SOx
Hourly	0.046	0.31	0.03	0.022	0.002
Daily	1.1	7.4	0.7	0.53	0.05

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RULE ANALYSIS:

RULE 212 (c)(1): This section requires a public notice for all new or modified permit units that emit air contaminants located within 1,000 feet from the outer boundary of a school. The facility is not located within 1,000 feet of the outer boundary of a school, the closest school (North High School) is approximately 3,700 feet (0.7 mile) away.

RULE 212 (c)(2) & RULE 212(g): These sections require a public notice for all new or modified sources/facilities that have on-site emission increases exceeding any of the daily maximums specified in Rule 212(g). A public notice is not required since there is not an emission increase from the project.

RULE 212(c)(3): This section requires a public notice for all new or modified permit units with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulting in an MICR equal or greater than one in a million per permit unit or ten in a million per facility. There will not be an increase in toxic air contaminants nor will there be an increase in MICR from this project. A public notice is not required under this section of the rule.

RULES 401 & 402: AQMD database has no records of visible emissions or nuisance complaints against this facility. Compliance with these requirements is expected with the proper operation of the equipment.

REGULATION XI: Northrop Grumman will continue to operate the spray booths in compliance with the applicable Reg. XI rules, as verified in the latest inspection in March 2013.

RULE 1303(a): There will not be an emission increase with this project, BACT is not triggered.

RULE 1303(b)(1): The boiler will operate as previously permitted, modeling is not required.

RULE 1303(b)(2): There will not be an emission increase, offsets are not required.

RULE 1303(b)(4): The facility is expected to be in full compliance with all applicable rules and regulations of the District.

RULE 1401: There will not be a cancer risk equal or greater than one in a million or an acute or chronic health risk from the project. Compliance is achieved.

RULE 2005: Northrop Grumman is a NOx RECLAIM facility. The proposed modification will not result in a NOx emission increase.

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5 th Permit Revision: Add new boiler D234 to replace boiler D74. Change conditions for tube bending machine D229.	0	0	-4	0	0	-5
6 th Permit Revision: Change condition for tube bending machine, D229.	0	0	0	0	0	0
7 th Permit Revision: Convert P/Cs for two boilers D232 & D234 to P/Os (move from Section H to Section D). Remove replaced boilers D36 & D113 from Section D.	0	0	0	0	0	0
8 th Permit Revision: Emission tagging corrections for D232 and D234.	0	0	0	0	0	0
9 th Permit Revision: Change equipment descriptions for D8, D11, D184 and D232 (minor) & change of responsible official (admin).	0	0	0	0	0	0
Cumulative Emissions Total	0	-2	-20	-6	-70	2
Maximum Daily	30	30	40*	30	60	220

RECOMMENDATION:

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “minor and administrative permit revision”, it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to the EPA for a 45-day review pursuant to Rule 3003(j). If the EPA does not raise any objections within the review period, a revised Title V permit will be issued to this facility with P/Os issued to this equipment in revised Section D, and the new responsible official in Section A.