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## FACILITY PERMIT TO OPERATE

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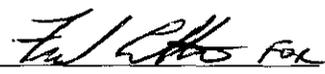
### NORTHROP GRUMMAN SPACE & MISSION SYSTEMS 1 SPACE PARK BLDGS. D1, REDONDO BEACH, CA 90278

#### NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.  
EXECUTIVE OFFICER

By   
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Deputy Executive Officer  
Engineering & Compliance

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

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## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
<b>System 1 : SURFACE PREPARATION</b>					
PROCESS TANK, NO.1, ALKALINE CLEANING, HEATED, 9-KW, WIDTH: 1 FT 7 IN; HEIGHT: 2 FT; LENGTH: 4 FT A/N: 474170 Permit to Construct Issued: 12/04/07	D276				A433.1, C6.5, E193.1
PROCESS TANK, NO.4, ALKALINE SOAK, HEATED, 27-KW, WIDTH: 2 FT 2 IN; HEIGHT: 7 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D277	C162			A433.1, C6.6, E193.1
PROCESS TANK, NO.6, ALKALINE ETCH, SODIUM HYDROXIDE, HEATED, 27-KW, WIDTH: 2 FT 2 IN; HEIGHT: 7 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D278	C162			A433.1, C6.6, E193.1
PROCESS TANK, NO.8, CONVERSION COATING, UNHEATED, AIR SPARGED, FERRIC SULFATE, SULFAMIC ACID, SODIUM NITRATE, SODIUM FLUOROSILICATE, WIDTH: 2 FT 2 IN; HEIGHT: 7 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D279	C162			A433.1, E193.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.10, CHEM FILM, UNHEATED, CHROMIC ACID, BARIUM NIRATE, SODIUM SILICOFLUORIDE, FERRICYANIDE, WIDTH: 2 FT 2 IN; HEIGHT: 7 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D280	C162			A433.1, E193.1
PROCESS TANK, NO.76, COVERED, ACID ETCH/MILL, UNHEATED, TRISODIUM PHOSPHATE, SODIUM FLUORIDE, HYDROCHLORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D317	C162			A433.1, E193.1
PROCESS TANK, NO.77, COVERED, ACID ETCH/MILL, UNHEATED, NITRIC ACID, HYDROFLUORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D318	C162			A433.1, E193.1
PROCESS TANK, NO.79, COVERED, ACID CLEAN, UNHEATED, NITRIC ACID, HYDROFLUORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D319	C162			A433.1, E193.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
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### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.80, COVERED, ACID CLEAN, UNHEATED, NITRIC ACID, HYDROFLUORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D320	C162			A433.1, E193.1
PROCESS TANK, NO.82, PASSIVATION, UNHEATED, NITRIC ACID, WIDTH: 1 FT 8 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D321				A433.1, E193.1
PROCESS TANK, NO.84, PASSIVATION, HEATED, SODIUM METASILICATE, SODIUM HYDROXIDE, SODIUM TRIPOLYPHOSPHATE, ROSEN SOAP, WIDTH: 1 FT 8 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D322				A433.1, C6.6, E193.1
PROCESS TANK, NO.85, COVERED, ALKALINE CLEAN, HEATED, DETERGENT, SODIUM HYDROXIDE, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D323				A433.1, C6.7, E193.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

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## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.86, CLEANING, HEATED, AIR SPARGED, ALKALINE DETERGENT, WIDTH: 4 FT 8 IN; HEIGHT: 3 FT 11.5 IN; LENGTH: 1 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D324	C162			A433.1, C6.8, E193.1
PROCESS TANK, NO.88, ACID CLEAN, HEATED, SULFURIC ACID, SODIUM DICHROMATE, WIDTH: 4 FT 8 IN; HEIGHT: 3 FT 11.5 IN; LENGTH: 1 FT 8 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D325	C162			A433.1, C6.6, E193.1
PROCESS TANK, NO.89, CONVERSION COATING, HEATED, 3-KW, SODIUM HYDROXIDE, WIDTH: 1 FT; HEIGHT: 1 FT 6 IN; LENGTH: 1 FT 6 IN A/N: 474170 Permit to Construct Issued: 12/04/07	D326				A433.1, C6.9, E193.1
BENCH, HEATED, CHEMICAL ANALYSIS, TECHNICSTRIP AU/ENSTRIP AU-78, LENGTH: 25IN; WIDTH: 25IN; HEIGHT: XXIN; A/N: 474170 Permit to Construct Issued: 12/04/07	D329	C162			A433.5, C6.13

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See Section J for NESHAP/MACT requirements  
 \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
BENCH, HEATED, ETCHING/STRIPPING, NITRIC ACID, SULFURIC ACID, AND SODIUM HYDROXIDE, WIDTH: 32IN; LENGTH: 32IN; HEIGHT: XXIN; A/N: 474170 Permit to Construct Issued: 12/04/07	D330	C162			A433.6, C6.12
<b>System 2 : COPPER PLATING</b>					
PROCESS TANK, NO.49, ACID CLEAN, UNHEATED, FLUORBORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D301				A433.2, E448.1
PROCESS TANK, NO.51, COPPER PLATE, WITH A 15V, 50 AMP RECTIFIER, HEATED, COPPER PYROPHOSPHATE, AMMONIA, LEAD METHANE SULFONATE, WIDTH: 2 FT 8 IN; HEIGHT: 2 FT; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D302	C162			A433.2, C6.10, E448.1
PROCESS TANK, NO.52, COPPER PLATE, WITH A 15V, 50 AMP RECTIFIER, HEATED, COPPER PYROPHOSPHATE, AMMONIA, LEAD METHAN SULFONATE, WIDTH: 2 FT 8 IN; HEIGHT: 2 FT; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D303	C162			A433.2, C6.10, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

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### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.54, ACID CLEAN, UNHEATED, SULFURIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D304				A433.2, E448.1
PROCESS TANK, NO.56, COPPER PLATE, WITH A 20V, 100 AMP RECTIFIER, HEATED, COPPER CYANIDE, SODIUM CYANIDE, SODIUM CARBONATE, POTASSIUM SODIUM TARTRATE, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D305	C162			A433.2, C6.11, E448.1
PROCESS TANK, NO.64, COPPER PLATE, WITH A 15V, 25 AMP RECTIFIER, UNHEATED, AIR SPARGED, COPPER SULFATE, SULFURIC ACID, HYDROCHLORIC ACID, WIDTH: 3 FT 9 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D310	C162			A433.2, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

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## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.65, COPPER PLATE, WITH A 15V, 25 AMP RECTIFIER, UNHEATED, AIR SPARGED, COPPER SULFATE, SULFURIC ACID, SULFURIC ACID, HYDROCHLORIC ACID, WIDTH: 3 FT 9 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D311	C162			A433.2, E448.1
PROCESS TANK, NO.67, COVERED, ACID CLEAN, UNHEATED, SULFURIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D312				A433.2, E448.1
PROCESS TANK, NO.68, COPPER CLEAN, HEATED, DETERGENT, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D313				A433.2, C6.10, E448.1
PROCESS TANK, NO.70, COVERED, ACID CLEAN, UNHEATED, NITRIC ACID, PHOSPHORIC ACID, ACETIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D314				A433.2, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.71, COVERED, ACID CLEAN, UNHEATED, NITRIC ACID, PHOSPHORIC ACID, ACETIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470065 Permit to Construct Issued: 08/15/07	D315				A433.2, E448.1
<b>System 3 : NICKEL PLATING</b>					
PROCESS TANK, NO.12, COVERED, ETCH, UNHEATED, NITRIC ACID, HYDROFLUORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 7.25 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D281	C162			A433.3, E448.1
PROCESS TANK, NO.14, ACID CLEAN, UNHEATED, NITRIC ACID, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D282				A433.3, E448.1
PROCESS TANK, NO.16, ALKALINE ETCH, UNHEATED, SODIUM HYDROXIDE, ZINC OXIDE, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D283				A433.3, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.19, COVERED, ELECTROLESS NICKEL, HEATED, ACETIC ACID, TETRASOD SALT, SOD HYPOPHOSPHITE, NH3, LEAD ACE, NI SULFATE, H2SO4, WIDTH: 2 FT; HEIGHT: 2 FT 4 IN; LENGTH: 3 FT A/N: 481865 Permit to Construct Issued: 08/05/08	D284	C162			A433.3, C6.12, E448.1
PROCESS TANK, NO.20, COVERED, ELECTROLESS NICKEL, HEATED, ACETIC ACID, TETRASOD SALT, SOD HYPOPHOSPHITE, NH3, LEAD ACE, NI SULFATE, H2SO4, WIDTH: 1 FT 6 IN; HEIGHT: 1 FT 6 IN; LENGTH: 2 FT 11 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D285	C162			A433.3, C6.12, E448.1
PROCESS TANK, NO.23, COVERED, STRIPPING, UNHEATED, NITRIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D286	C162			A433.3, E448.1
PROCESS TANK, NO.25, COVERED, SOLDER STRIP, UNHEATED, AMMONIUM BIFLUORIDE, HYDROGEN PEROXIDE, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D287	C162			A433.3, E448.1

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 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.26, COVERED, SOLDER STRIP, UNHEATED, AMMONIUM BIFLUORIDE, HYDROGEN PEROXIDE, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D288	C162			A433.3, E448.1
PROCESS TANK, NO.27, ALKALINE CLEAN, HEATED, SODIUM HYDROXIDE, SODIUM METASILICATE, SODIUM CARBONATE, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D289				A433.3, C6.6, E448.1
PROCESS TANK, NO.29, ACID CLEAN, UNHEATED, HYDROCHLORIC ACID, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D290	C162			A433.3, E448.1
PROCESS TANK, NO.31, NICKEL STRIKE, WITH A 20V, 150 AMP RECTIFIER, UNHEATED, NICKEL CHLORIDE, HYDROCHLORIC ACID, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D291	C162			A433.3, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.33, NICKEL PLATE, WITH A 15V, 25 AMP RECTIFIER, HEATED, NICKEL SULFAMATE, NICKEL BROMIDE, BORIC ACID, WIDTH: 2 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D292	C162			A433.3, C6.14, E448.1
PROCESS TANK, NO.35, ALKALINE ETCH, UNHEATED, AMMONIUM PERSULFATE, SODIUM BISULFATE, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481865 Permit to Construct Issued: 08/05/08	D293				A433.3, E448.1
<b>System 4 : PRECIOUS METAL PLATING</b>					
PROCESS TANK, NO.38, GOLD PLATE, WITH A 15V, 25 AMP RECTIFIER, HEATED, POTASSIUM CYANOAUATE, THALLIUM COMPOUND, OROTEMP SOLUTION, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D294	C162			A433.4, C6.13, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.39, GOLD PLATE, WITH A 15V, 25 AMP RECTIFIER, HEATED, POTASSIUM CYANOAUATE, THALLIUM COMPOUND, OROTEMP SOLUTION, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D295	C162			A433.4, C6.13, E448.1
PROCESS TANK, NO.41, ALKALINE RINSE, UNHEATED, SODIUM HYDROXIDE, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D327				A433.4
PROCESS TANK, NO.42, GOLD PLATE, POTASSIUM AUROCYANIDE, COBALT COMPLEX, NICKEL COMPLEX, POTASSIUM CITRATE, CITRIC ACID, MONOPOTASSIUM PHOSPHATE, WITH A 15V, 50 AMP RECT, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D296	C162			A433.4, C6.10, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.43, GOLD PLATE, POTASSIUM AUROCYANIDE, COBALT COMPLEX, NICKEL COMPLEX, POTASSIUM CITRATE, CITRIC ACID, MONOPOTASSIUM PHOSPHATE, WITH A 15V, 50 AMP RECT, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D297	C162			A433.4, C6.10, E448.1
PROCESS TANK, NO.45, GOLD PLATE, WITH A 20V, 100 AMP RECTIFIER, HEATED, POTASSIUM CITRATE, CITRIC ACID, MONOPOTASSIUM PHOSPHATE, POTASSIUM CYANOAUATE, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D298	C162			A433.4, C6.10, E448.1
PROCESS TANK, NO.73, GOLD PLATE, WITH A 10V, 25 AMP RECTIFIER, HEATED, POTASSIUM GOLD CYANIDE, AMMONIUM HYDROXIDE, WIDTH: 1 FT 2 IN; HEIGHT: 2 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D316	C162			A433.4, C6.1, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.47, TIN/LEAD PLATE, WITH A 15V, 50 AMP RECTIFIER, UNHEATED, TIN FLUOBORATE, LEAD FLUOBORATE, BORIC ACID, FLUORBORIC ACID, PEPTON, WIDTH: 2 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D299	C162			A433.4, E448.1
PROCESS TANK, NO.48, TIN PLATE, WITH A 15V, 50 AMP RECTIFIER, UNHEATED, TIN FLUOBORATE, LEAD FLUOBORATE, BORIC ACID, FLUORBORIC ACID, PEPTON, WIDTH: 2 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D300	C162			A433.4, E448.1
PROCESS TANK, NO.59, SILVER PLATE, WITH A 20V, 100 AMP RECTIFIER, UNHEATED, POTASSIUM SILVER CYANIDE, POTASSIUM CYANIDE, POTASSIUM CARBONATE, KOH, WIDTH: 1 FT 9 IN; HEIGHT: 2 FT 6 IN; LENGTH: 2 FT 6 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D306	C162			A433.4, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.60, SILVER STRIKE, WITH A 20V, 100 AMP RECTIFIER, UNHEATED, POTASSIUM SILVER CYANIDE, POTASSIUM CYANIDE, POTASSIUM CARBONATE, WIDTH: 1 FT 9 IN; HEIGHT: 2 FT 6 IN; LENGTH: 2 FT 6 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D307	C162			A433.4, E448.1
PROCESS TANK, NO.61, SILVER PLATE, WITH A 15V, 50 AMP RECTIFIER, UNHEATED, POTASSIUM SILVER CYANIDE, POTASSIUM CYANIDE, POTASSIUM CARBONATE, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D308	C162			A433.4, E448.1
PROCESS TANK, NO.62, SILVER PLATE, WITH A 15V, 50 AMP RECTIFIER, UNHEATED, POTASSIUM SILVER CYANIDE, POTASSIUM CYANIDE, POTASSIUM ANTIMONY TRATRATE, WIDTH: 2 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 481867 Permit to Construct Issued: 08/05/08	D309	C162			A433.4, E448.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit  
 (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
<b>System 5 : AIR POLLUTION CONTROL SYSTEM</b>					
SCRUBBER, PACKED BED, M3, WIDTH: 9 FT; HEIGHT: 8 FT; LENGTH: 16 FT A/N: 481866 Permit to Construct Issued: 08/05/08	C162	D277 D278 D279 D280 D281 D284 D285 D286 D287 D288 D290 D291 D292 D294 D295 D296 D297  D298 D299 D300 D302 D303 D305 D306 D307 D308 D309 D310 D311 D316 D317 D318 D319 D320  D324 D325 D329 D330			C8.3, C8.4, D182.2, E158.1
<b>Process 6 : COATINGS</b>					
OVEN, ELECTRIC, SOLVENT CLEANING AND DRYING, GEORGIA OVEN CO, MODEL NO. 12STX, 20" W X 23" D X 28" H A/N: 468746 Permit to Construct Issued: 09/09/08	D274	C243			B59.4, B59.5, C6.4, E71.5, E80.4, E448.4, H23.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 6 : COATINGS</b>					
OVEN, ELECTRIC, SOLVENT CLEANING AND DRYING, VWR INTERNATIONAL, MODEL NO. 1430S, 25" W X 25" D X 21" H, 0.8 KW A/N: 468748 Permit to Construct Issued: 09/09/08	D275	C243			B59.4, B59.5, C6.4, E71.5, E80.3, E448.4, H23.1
OVEN, ELECTRIC, SOLVENT CLEANING AND DRYING, VWR INTERNATIONAL, MODEL NO. 1430, 25.5" W X 25" D X 21" H, 0.55 KW A/N: 483363 Permit to Construct Issued: 09/09/08	D332	C243			B59.4, B59.5, C6.4, E71.5, E80.5, E448.4, H23.1
<b>Process 8 : INTERNAL COMBUSTION</b>					
<b>System 1 : ICE</b>					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, 12 CYLINDERS, DIESEL FUEL, CATERPILLAR, MODEL C32, WITH AFTERCOOLER, TURBOCHARGER, 1502 HP A/N: 474467 Permit to Construct Issued: 01/22/08	D331		NOX: PROCESS UNIT**	<b>CO: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ;</b> <b>NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012,5-6-2005]</b>  <b>NOX + ROG: 4.8 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ; PM: (9) [RULE 404,2-7-1986]</b>	B59.6, D12.4, E448.5, H23.6, K67.6

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 8 : INTERNAL COMBUSTION</b>					
				<b>PM10:</b> 0.15 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, 6 CYLINDERS, DIESEL FUEL, JOHN DEERE, MODEL 6068HF285, WITH AFTERCOOLER, TURBOCHARGER, 237 HP A/N: 470067 Permit to Construct Issued: 08/30/07	D328			<b>CO:</b> 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ; <b>NOX:</b> 469 LBS/1000 GAL DIESEL (1) [RULE 2012,5-6-2005]  <b>NOX + ROG:</b> 3 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ; <b>PM:</b> (9) [RULE 404,2-7-1986]  <b>PM10:</b> 0.15 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	B59.6, D12.4, E448.5, H23.6, K67.6

\* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate  
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 10 : AIR POLLUTION CONTROL DEVICES</b>					
<b>System 1 : FUME HOOD</b>					
CARBON FILTER, PORTABLE FUME HOOD, MISONIX, MODEL NO. AU-250E HEPA, WITH ONE PRE-FILTER, ONE MAIN CARBON FILTER AND ONE SAFETY CARBON FILTER. A/N: 468744 Permit to Construct Issued: 09/09/08	C243	D274 D275 D332		<b>VOC:</b> (9) [RULE 1124,9-21-2001;RULE 1171,11-7-2003;RULE 1171,2-4-2008]	C1.21, D12.3, H23.1

\* (1)(1A)(1B) Denotes RECLAIM emission factor  
 (3) Denotes RECLAIM concentration limit  
 (5)(5A)(5B) Denotes command and control emission limit  
 (7) Denotes NSR applicability limit  
 (9) See App B for Emission Limits  
 (2)(2A)(2B) Denotes RECLAIM emission rate  
 (4) Denotes BACT emission limit  
 (6) Denotes air toxic control rule limit  
 (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
 (10) See Section J for NESHAP/MACT requirements  
 \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

**FACILITY PERMIT TO OPERATE  
NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**SECTION H: DEVICE ID INDEX**

**The following sub-section provides an index  
to the devices that make up the facility  
description sorted by device ID.**

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: DEVICE ID INDEX

Device Index For Section H			
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C243	19	10	1
D274	16	6	0
D275	17	6	0
D276	1	1	1
D277	1	1	1
D278	1	1	1
D279	1	1	1
D280	2	1	1
D281	8	1	3
D282	8	1	3
D283	8	1	3
D284	9	1	3
D285	9	1	3
D286	9	1	3
D287	9	1	3
D288	10	1	3
D289	10	1	3
D290	10	1	3
D291	10	1	3
D292	11	1	3
D293	11	1	3
D294	11	1	4
D295	12	1	4
D296	12	1	4
D297	13	1	4
D298	13	1	4
D299	14	1	4
D300	14	1	4
D301	5	1	2
D302	5	1	2
D303	5	1	2
D304	6	1	2
D305	6	1	2
D306	14	1	4
D307	15	1	4

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: DEVICE ID INDEX

Device Index For Section H			
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D309	15	1	4
D310	6	1	2
D311	7	1	2
D312	7	1	2
D313	7	1	2
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D315	8	1	2
D316	13	1	4
D317	2	1	1
D318	2	1	1
D319	2	1	1
D320	3	1	1
D321	3	1	1
D322	3	1	1
D323	3	1	1
D324	4	1	1
D325	4	1	1
D326	4	1	1
D327	12	1	4
D328	18	8	1
D329	4	1	1
D330	5	1	1
D331	17	8	1
D332	17	6	0

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

#### FACILITY CONDITIONS

F2.1 The operator shall limit emissions from this facility as follows:

CONTAMINANT	EMISSIONS LIMIT
Single Volatile Hazardous Air Pollutant (VHAP)	Less than 10.0 TONS IN ANY CONSECUTIVE 12-MONTH PERIOD
Combination of Volatile Hazardous Air Pollutants (VHAPs)	Less than 25.0 TONS IN ANY CONSECUTIVE 12-MONTH PERIOD

To ensure compliance with the Volatile Hazardous Air Pollutant (VHAP) emission limits of this condition, the operator shall comply with the following recordkeeping requirements:

- (a) Comply with Rule 109 (Recordkeeping for Volatile Organic Compound Emissions).
- (b) Within 14 calendar days after the end of each month, total and record VHAP emissions for the month and for the previous 12-month period from all equipment and operations that are required to have written permits or are exempt from written permits pursuant to Rule 219. The record shall include any procedures used to account for control device efficiencies and/or waste disposal. It shall be signed and certified for accuracy by the highest ranking individual responsible for compliance with District rules.
- (c) Maintain a single list which includes only the name and address of each person from whom the facility acquired VHAP-containing material regulated by the District that was used or stored at the facility during the preceding 12 months.
- (d) Retain all purchase invoices for all VHAP-containing material used or stored at the facility, and all waste manifests for all waste VHAP-containing material removed from the facility.
- (e) Retain all records required by this permit at the facility for five years, and make all records available to any District personnel upon request.

[40CFR 63 Subpart DDDDD, 9-13-2004; 40CFR 63 Subpart GG, 12-8-2000; 40CFR 63 Subpart JJ, 12-28-1998; 40CFR 63 Subpart MMMM, 1-2-2004]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[**RULE 401, 3-2-1984**; RULE 401, 11-9-2001]

F14.1 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[RULE 431.2, 9-15-2000]

F14.3 The operator shall not use diesel fuel containing sulfur compounds in excess of 0.05 percent by weight.

[**RULE 431.2, 5-4-1990**; RULE 431.2, 9-15-2000]

### **DEVICE CONDITIONS**

#### **A. Emission Limits**

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A433.1 The operator shall not use in this equipment any toxic air contaminants (TAC) identified in SCAQMD Rule 1401, as amended March 4, 2005, except as identified below up to the following content limit.:

POLLUTANT	TANK NO.	MAX. CONTENT (WT%)
Sodium Hydroxide	6,84,85,89	30.0
Chrome Compounds	10	1.0
Chrome Compounds	88	5.0
Nitric Acid	77,82	45.0
Nitric Acid	79,80	28.0
Hydrogen Fluoride	77,79,80	11.0
Sulfuric Acid	88	20.0
Hydrochloric Acid	76	15.0

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D276, D277, D278, D279, D280, D317, D318, D319, D320, D321, D322, D323, D324, D325, D326]

A433.2 The operator shall not use in this equipment any toxic air contaminants (TAC) identified in SCAQMD Rule 1401, as amended March 4, 2005, except as identified below up to the following content limit.:

POLLUTANT	TANK NO.	MAX. CONTENT (WT%)
Copper Compounds	51, 52, 56, 64, 65	67.0
Nitric Acid	70, 71	20.0
Lead Compounds	51, 52	3.0
Ammonia	51, 52	1.0
Sulfuric Acid	54, 64, 65, 67	20.0
Hydrochloric Acid	64, 65	15.0
Phosphoric Acid	70, 71	46

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D301, D302, D303, D304, D305, D310, D311, D312, D313, D314, D315]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A433.3 The operator shall not use in this equipment any toxic air contaminants (TAC) identified in SCAQMD Rule 1401, as amended March 4, 2005, except as identified below up to the following content limit.:

POLLUTANT	TANK NO.	MAX. CONTENT (WT%)
Sodium Hydroxide	16, 27	30.0
Nickel Compounds	31, 33	46.0
Nitric Acid	14, 23	45.0
Nitric Acid	12	53
Hydrogen Fluoride	12	13.0
Ammonia	19, 20	1.0
Lead Compounds	19, 20	3.0
Sulfuric Acid	19, 20	20.0
Hydrochloric Acid	31	15.0
Hydrochloric Acid	29	19

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D281, D282, D283, D284, D285, D286, D287, D288, D289, D290, D291, D292, D293]

A433.4 The operator shall not use in this equipment any toxic air contaminants (TAC) identified in SCAQMD Rule 1401, as amended March 4, 2005, except as identified below up to the following content limit.:

POLLUTANT	TANK NO.	MAX. CONTENT (WT%)
Sodium Hydroxide	41	30.0
Lead Compounds	47, 48	3.0
Nickel Compounds	42, 43	0.11

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D294, D295, D296, D297, D298, D299, D300, D306, D307, D308, D309, D316, D327]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A433.5 The operator shall not use in this equipment any toxic air contaminants (TAC) identified in SCAQMD Rule 1401, as amended March 4, 2005, except as identified below up to the following content limit.:

POLLUTANT	TANK NO.	MAX. CONTENT (WT%)
Lead Compounds	D329	1.0

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D329]

A433.6 The operator shall not use in this equipment any toxic air contaminants (TAC) identified in SCAQMD Rule 1401, as amended March 4, 2005, except as identified below up to the following content limit.:

POLLUTANT	TANK NO.	MAX. CONTENT (WT%)
Sodium Hydroxide	D330	10.0
Nitric Acid	D330	50.0
Sulfuric Acid	D330	50.0

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D330]

### **B. Material/Fuel Type Limits**

B59.4 The operator shall not use the following material(s) in this device :

halogenated solvent to conduct rule 1122 solvent cleaning.

[RULE 1122, 10-1-2004]

[Devices subject to this condition : D274, D275, D332]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

B59.5 The operator shall not use the following material(s) in this device :

Materials containing any toxic air contaminants identified in the SCAQMD Rule 1401, as amended 3/4/2005, except for the following compounds as listed below:

Methanol

Isopropanol (IPA)

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D274, D275, D332]

B59.6 The operator shall only use the following material(s) in this device :

The operator shall not use diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D328, D331]

### **C. Throughput or Operating Parameter Limits**

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

C1.21 The operator shall limit the operating time to no more than 358 hour(s).

For the purpose of this condition, operating time shall be defined as the time elapsed between filter changes.

The operator shall not use this equipment unless the exhaust fan is turned on.

The operator shall not operate this equipment near open doorways, open windows, air conditioning, or any areas where is likely to be effected by any other equipment.

The operator shall not use this equipment unless the main carbon filter door and sash door are completely closed.

The operator shall set the alarm to warn the operator when the total elapsed operating hour for the main and safety carbon filters reaches 357 hours or less of operation.

The operator shall replace the main and safety carbon filters with new filters whenever the total elapsed operating hours from the last time the main and safety carbon filters were replaced is 358 hours or less.

The operator shall replace the main and safety carbon filters with a new one whenever the hydrocarbon sensor detects breakthrough which is indicated as "Approaching Saturation" on the instrument panel for this equipment. The breakthrough shall be set at a TLV between 0 to 50 ppm.

The operator shall dispose of the spent carbon filters properly.

The operator shall keep a log to indicate the date pre-filter, the main and safety carbon filters are replaced. The records shall be kept for a period of at least five years and made available to District personnel upon request.

The operator shall replace the pre-filter whenever the check filter light on panel comes on, or at least when the main carbon filters and safety filters are replaced.

The operator shall not use halogenated solvents to conduct rule 1122 operations in this equipment.

**[RULE 1122, 10-1-2004]**

[Devices subject to this condition : C243]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- C6.1 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 185 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D316]

- C6.4 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 165 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the vacuum oven.

**[RULE 401, 3-2-1984; RULE 401, 11-9-2001]**

[Devices subject to this condition : D274, D275, D332]

- C6.5 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 175 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D276]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- C6.6 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 170 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D277, D278, D289, D322, D325]

- C6.7 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 180 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D323]

- C6.8 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 140 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D324]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- C6.9 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 230 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D326]

- C6.10 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 145 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D296, D297, D298, D302, D303, D313]

- C6.11 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 155 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D305]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- C6.12 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 200 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D284, D285, D330]

- C6.13 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 160 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D294, D295, D329]

- C6.14 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 150 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the process tank.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition : D292]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

- C8.3 The operator shall use this equipment in such a manner that the pH being monitored, as indicated below, is not less than 7 of the pH scale.

To comply with this condition, the operator shall install and maintain a(n) pH meter to accurately indicate the pH of the scrubbing solution.

The operator shall record the parameter being monitored once every 24 hours.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C162]

- C8.4 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 280 gpm.

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the scrubbing solution supplied to the spray nozzles.

The operator shall record the parameter being monitored once every 24 hours.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : C162]

### **D. Monitoring/Testing Requirements**

- D12.3 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the exhaust fan.

**[RULE 1122, 10-1-2004; RULE 2012, 5-6-2005]**

[Devices subject to this condition : C243]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- D12.4 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the the engine.

[RULE 1110.2, 2-1-2008; **RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996**; RULE 1470, 6-1-2007;  
**RULE 2012, 5-6-2005**]

[Devices subject to this condition : D328, D331]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

D182.2 The operator shall test this equipment in accordance with the following specifications:

The test shall be conducted no later than 180 days after the initial start-up of this equipment unless otherwise approved in writing by the District.

The test shall be conducted in accordance with the standard source test protocol to determine the control efficiency of the scrubber.

A written notice of the source test shall be submitted to the District (addressed to South Coast Air Quality Management District, P.O. Box 4941, Diamond Bar, CA 91765) at least 14 days prior to the source testing date so that an observer from the District may be present

Emissions data shall be expressed in terms of pounds per hour particulate

The exhaust flow rate shall be expressed in terms of actual standard cubic feet per minute

The test shall be conducted to determine the particulate control efficiency of the scrubber.

The test shall be conducted and the operating parameters recorded during the test

A testing laboratory certified by the California Air Resources Board in the required test methods for criteria pollutants to be measured, and in compliance with District Rule 304 (no conflict of interest) shall conduct the test.

Sampling facilities shall comply with the District guidelines for construction of sampling and testing facilities, pursuant to Rule 217

Two complete copies of the source test reports shall be submitted to the District (addressed to South Coast Air Quality Management District, P.O. Box 4941, Diamond Bar, CA 91765) within 45 days after the source testing date. The source test report shall include, but is not limited to, all testing data required by this condition.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; **RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : C162]

### **E. Equipment Operation/Construction Requirements**

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E71.5 The operator shall not use this equipment for cleaning operations unless it is at ambient room temperature.

**[RULE 1122, 10-1-2004]**

[Devices subject to this condition : D274, D275, D332]

E80.3 The operator shall not use this equipment when any of the following equipment are operating:

Device ID: D274 [is vented to fume hood C243]

Device ID: D332 [is vented to fume hood C243]

**[RULE 1122, 10-1-2004]**

[Devices subject to this condition : D275]

E80.4 The operator shall not use this equipment when any of the following equipment are operating:

Device ID: D275 [is vented to fume hood C243]

Device ID: D332 [is vented to fume hood C243]

**[RULE 1122, 10-1-2004]**

[Devices subject to this condition : D274]

E80.5 The operator shall not use this equipment when any of the following equipment are operating:

Device ID: D274 [is vented to fume hood C243]

Device ID: D275 [is vented to fume hood C243]

**[RULE 1122, 10-1-2004]**

[Devices subject to this condition : D332]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E158.1 The operator shall maintain a continuous overflow of water from the scrubber sump to prevent build up of contamination.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : C162]

E193.1 The operator shall restrict the operation of this equipment as follows:

Tanks containing chrome compounds shall not be air sparged or rectified

**[RULE 1401, 3-4-2005; RULE 1469, 10-9-1998; RULE 1469, 5-2-2003]**

[Devices subject to this condition : D276, D277, D278, D279, D280, D317, D318, D319, D320, D321, D322, D323, D324, D325, D326]

E448.1 The operator shall comply with the following requirements:

Rule 1426 recordkeeping

**[RULE 1426, 5-2-2003]**

[Devices subject to this condition : D281, D282, D283, D284, D285, D286, D287, D288, D289, D290, D291, D292, D293, D294, D295, D296, D297, D298, D299, D300, D301, D302, D303, D304, D305, D306, D307, D308, D309, D310, D311, D312, D313, D314, D315, D316]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

The operator shall comply with the terms and conditions set forth below:

E448.4 The operator shall comply with the following requirements:

Whenever solvent cleaning is conducted in this equipment, the oven shall be vented to a fume hood/carbon filter (C243) which has been issued a permit to operate and which is in full operation.

The operator shall either install a non removable venting hose to vent the emission discharge from the vacuum oven into the fume hood/carbon filter (C243) or the point of emission discharge shall be placed inside of the fume hood/carbon filter (C243).

**[RULE 1122, 10-1-2004; RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]**

[Devices subject to this condition : D274, D275, D332]

E448.5 The operator shall comply with the following requirements:

The engine shall not be operated more than 200 hours in any one year, which includes 50 hours in any one year for maintenance and testing

Operation beyond the allotted time for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the utility distribution company has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage

In the event as described in the paragraph above, the engine shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect

This engine shall not be used as part of an interruptible service contract in which a facility receives a payment or reduced rates in return for reducing electric load on the grid when requested by the utility or the grid operator

**[RULE 1110.2, 2-1-2008; RULE 1304(a)-Modeling and Offset Exemption, 6-14-1996; RULE 1470, 6-1-2007; RULE 2012, 5-6-2005]**

[Devices subject to this condition : D328, D331]

### **H. Applicable Rules**

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1122

**[RULE 1122, 10-1-2004]**

[Devices subject to this condition : C243, D274, D275, D332]

H23.6 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
PM	District Rule	1470
Sulfur compounds	District Rule	431.2

**[RULE 1470, 6-1-2007; RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]**

[Devices subject to this condition : D328, D331]

### **K. Record Keeping/Reporting**

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

K67.6 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

An engine operating log shall be kept and maintained on file to record the engine operating time. The log shall list the date of operation, the timer reading in hours at the beginning and end of operation, and the reason for operation. By January 15th of each year, the operator shall total and record the total hours of operation (including hours for both manual operation and automatic operation) for the previous calendar year.

All records required by this permit shall be retained on the premises for at least five years and shall be made available to any District representative upon request.

[RULE 1110.2, 2-1-2008; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1470, 6-1-2007]

[Devices subject to this condition : D328, D331]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION K: TITLE V Administration**

#### **GENERAL PROVISIONS**

1. This permit may be revised, revoked, reopened and reissued, or terminated for cause, or for failure to comply with regulatory requirements, permit terms, or conditions. [3004(a)(7)(C)]
2. This permit does not convey any property rights of any sort or any exclusive privilege. [3004(a)(7)(E)]

#### **Permit Renewal and Expiration**

3. (A) Except for solid waste incineration facilities subject to standards under Section 129(e) of the Clean Air Act, this permit shall expire five years from the date that this Title V permit is issued. The operator's right to operate under this permit terminates at midnight on this date, unless the facility is protected by an application shield in accordance with Rule 3002(b), due to the filing of a timely and complete application for a Title V permit renewal, consistent with Rule 3003. [3004(a)(2), 3004(f)]  
  
(B) A Title V permit for a solid waste incineration facility combusting municipal waste subject to standards under Section 129(e) of the Clean Air Act shall expire 12 years from the date of issuance unless such permit has been renewed pursuant to this regulation. These permits shall be reviewed by the Executive Officer at least every five years from the date of issuance. [3004(f)(2)]
4. To renew this permit, the operator shall submit to the Executive Officer an application for renewal at least 180 days, but not more than 545 days, prior to the expiration date of this permit. [3003(a)(6)]

#### **Duty to Provide Information**

5. The applicant for, or holder of, a Title V permit shall furnish, pursuant to Rule 3002(d) and (e), timely information and records to the Executive Officer or designee within a reasonable time as specified in writing by the Executive Officer or designee. [3004(a)(7)(F)]

#### **Payment of Fees**

6. The operator shall pay all required fees specified in Regulation III - Fees. [3004(a)(7)(G)]

#### **Reopening for Cause**

7. The Executive Officer will reopen and revise this permit if any of the following circumstances occur:  
  
(A) Additional regulatory requirements become applicable with a remaining permit term of three or more years. Reopening is not required if the effective date of the requirement is later than the expiration date of this permit, unless the permit or any of its terms and conditions has been extended pursuant to paragraph (f)(4) of Rule 3004.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

- (B) The Executive Officer or EPA Administrator determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
- (C) The Executive Officer or EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [3005(g)(1)]

### COMPLIANCE PROVISIONS

- 8. The operator shall comply with all regulatory requirements, and all permit terms and conditions, except:
  - (A) As provided for by the emergency provisions of condition no. 17 or condition no. 18, or
  - (B) As provided by an alternative operating condition granted pursuant to a federally approved (SIP-approved) Rule 518.2.

Any non-compliance with any federally enforceable permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or denial of a permit renewal application. Non-compliance may also be grounds for civil or criminal penalties under the California State Health and Safety Code. [3004(a)(7)(A)]

- 9. The operator shall allow the Executive Officer or authorized representative, upon presentation of appropriate credentials to:
  - (A) Enter the operator's premises where emission-related activities are conducted, or records are kept under the conditions of this permit;
  - (B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - (C) Inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (D) Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the facility permit or regulatory requirements. [3004(a)(10)(B)]
- 10. All terms and conditions in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA Administrator and citizens under the federal Clean Air Act, unless the term or condition is designated as not federally enforceable. Each day during any portion of which a violation occurs is a separate offense. [3004(g)]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

11. A challenge to any permit condition or requirement raised by EPA, the operator, or any other person, shall not invalidate or otherwise affect the remaining portions of this permit. [3007(b)]
12. The filing of any application for a permit revision, revocation, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. [3004(a)(7)(D)]
13. It shall not be a defense for a person in an enforcement action, including those listed in Rule 3002(c)(2), that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit, except as provided for in "Emergency Provisions" of this section. [3004(a)(7)(H)]
14. The operator shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the California Health and Safety Code or of AQMD rules. This rule shall not apply to cases in which the only violation involved is of Section 41700 of the California Health and Safety Code, or Rule 402 of AQMD Rules. [408]
15. Nothing in this permit or in any permit shield can alter or affect:
  - (A) Under Section 303 of the federal Clean Air Act, the provisions for emergency orders;
  - (B) The liability of the operator for any violation of applicable requirements prior to or at the time of permit issuance;
  - (C) The applicable requirements of the Acid Rain Program, Regulation XXXI;
  - (D) The ability of EPA to obtain information from the operator pursuant to Section 114 of the federal Clean Air Act;
  - (E) The applicability of state or local requirements that are not "applicable requirements", as defined in Rule 3000, at the time of permit issuance but which do apply to the facility, such as toxics requirements unique to the State; and
  - (F) The applicability of regulatory requirements with compliance dates after the permit issuance date. [3004(c)(3)]
16. For any portable equipment that requires an AQMD or state permit or registration, excluding a) portable engines, b) military tactical support equipment and c) AQMD-permitted portable equipment that are not a major source, are not located at the facility for more than 12 consecutive months after

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION K: TITLE V Administration**

commencing operation, and whose operation does not conflict with the terms or conditions of this Title V permit: 1) the facility operator shall keep a copy of the AQMD or state permit or registration; 2) the equipment operator shall comply with the conditions on the permit or registration and all other regulatory requirements; and 3) the facility operator shall treat the permit or registration as a part of its Title V permit, subject to recordkeeping, reporting and certification requirements. [3004(a)(1)]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

#### **EMERGENCY PROVISIONS**

17. An emergency<sup>1</sup> constitutes an affirmative defense to an action brought for non-compliance with a technology-based emission limit only if:
- (A) Properly signed, contemporaneous operating records or other credible evidence demonstrate that:
    - (1) An emergency occurred and the operator can identify the cause(s) of the emergency;
    - (2) The facility was operated properly (i.e. operated and maintained in accordance with the manufacturer's specifications, and in compliance with all regulatory requirements or a compliance plan), before the emergency occurred;
    - (3) The operator took all reasonable steps to minimize levels of emissions that exceeded emissions standard, or other requirements in the permit; and,
    - (4) The operator submitted a written notice of the emergency to the AQMD within two working days of the time when the emissions limitations were exceeded due to the emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - (B) The operator complies with the breakdown provisions of Rule 430 - Breakdown Provisions, or subdivision (i) of Rule 2004 - Requirements, whichever is applicable. [3002(g), 430, 2004(i)]
18. The operator is excused from complying with any regulatory requirement that is suspended by the Executive Officer during a state of emergency or state of war emergency, in accordance with Rule 118 - Emergencies. [118]

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<sup>1</sup> "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the operator, including acts of God, which: (A) requires immediate corrective action to restore normal operation; and (B) causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency; and (C) is not caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION K: TITLE V Administration**

#### **RECORDKEEPING PROVISIONS**

19. In addition to any other recordkeeping requirements specified elsewhere in this permit, the operator shall keep records of required monitoring information, where applicable, that include:
  - (A) The date, place as defined in the Title V permit, and time of sampling or measurements;
  - (B) The date(s) analyses were performed;
  - (C) The company or entity that performed the analyses;
  - (D) The analytical techniques or methods used;
  - (E) The results of such analyses; and
  - (F) The operating conditions as existing at the time of sampling or measurement. [3004(a)(4)(B)]
20. The operator shall maintain records pursuant to Rule 109 and any applicable material safety data sheet (MSDS) for any equipment claimed to be exempt from a written permit by Rule 219 based on the information in those records. [219(t)]
21. The operator shall keep all records of monitoring data required by this permit or by regulatory requirements for a period of at least five years from the date of the monitoring sample, measurement, report, or application. [3004(a)(4)(E)]

#### **REPORTING PROVISIONS**

22. The operator shall comply with the following requirements for prompt reporting of deviations:
  - (A) Breakdowns shall be reported as required by Rule 430 - Breakdown Provisions or subdivision (i) of Rule 2004 - Requirements, whichever is applicable.
  - (B) Other deviations from permit or applicable rule emission limitations, equipment operating conditions, or work practice standards, determined by observation or by any monitoring or testing required by the permit or applicable rules that result in emissions greater than those allowed by the permit or applicable rules shall be reported within 72 hours (unless a shorter reporting period is specified in an applicable State or Federal Regulation) of discovery of the deviation by contacting AQMD enforcement personnel assigned to this facility or otherwise calling (800) CUT-SMOG.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

- (C) A written report of such deviations reported pursuant to (B), and any corrective actions or preventative measures taken, shall be submitted to AQMD, in an AQMD approved format, within 14 days of discovery of the deviation.
  - (D) All other deviations shall be reported with the monitoring report required by condition no. 23. [3004(a)(5)]
23. Unless more frequent reporting of monitoring results are specified in other permit conditions or in regulatory requirements, the operator shall submit reports of any required monitoring to the AQMD at least twice per year. The report shall include a) a statement whether all monitoring required by the permit was conducted; and b) identification of all instances of deviations from permit or regulatory requirements. A report for the first six calendar months of the year is due by August 31 and a report for the last six calendar months of the year is due by February 28. [3004(a)(4)(F)]
24. The operator shall submit to the Executive Officer and to the Environmental Protection Agency (EPA), an annual compliance certification. For RECLAIM facilities, the certification is due when the Annual Permit Emissions Program (APEP) report is due and shall cover the same reporting period. For other facilities, the certification is due on March 1 for the previous calendar year. The certification need not include the period preceding the date the initial Title V permit was issued. Each compliance certification shall include:
- (A) Identification of each permit term or condition that is the basis of the certification;
  - (B) The compliance status during the reporting period;
  - (C) Whether compliance was continuous or intermittent;
  - (D) The method(s) used to determine compliance over the reporting period and currently, and
  - (E) Any other facts specifically required by the Executive Officer to determine compliance.
- The EPA copy of the certification shall be sent to: Director of the Air Division Attn: Air-3 USEPA, Region IX 75 Hawthorne St. San Francisco, CA 94105 [3004(a)(10)(E)]
25. All records, reports, and documents required to be submitted by a Title V operator to AQMD or EPA shall contain a certification of accuracy consistent with Rule 3003(c)(7) by a responsible official (as defined in Rule 3000). [3004(a)(12)]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **SECTION K: TITLE V Administration**

#### **PERIODIC MONITORING**

26. All periodic monitoring required by this permit pursuant to Rule 3004(a)(4)(c) is based on the requirements and justifications in the AQMD document "Periodic Monitoring Guidelines for Title V Facilities" or in case-by-case determinations documented in the Title V application file. [3004(a)(4)]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

*FACILITY RULES*

*This facility is subject to the following rules and regulations:*

With the exception of Rule 402, 473, 477, 1118 and Rules 1401 through 1420, the following rules that are designated as non-federally enforceable are pending EPA approval as part of the state implementation plan. Upon the effective date of that approval, the approved rule(s) will become federally enforceable, and any earlier versions of those rules will no longer be federally enforceable.

RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 109	5-2-2003	Federally enforceable
RULE 1107	1-6-2006	Non federally enforceable
RULE 1107	11-9-2001	Federally enforceable
RULE 1110.2	2-1-2008	Non federally enforceable
RULE 1113	11-8-1996	Federally enforceable
RULE 1113	7-13-2007	Non federally enforceable
RULE 1122	10-1-2004	Federally enforceable
RULE 1122	7-11-1997	Federally enforceable
RULE 1124	9-21-2001	Federally enforceable
RULE 1136	6-14-1996	Federally enforceable
RULE 1146	11-17-2000	Federally enforceable
RULE 1146.1	5-13-1994	Federally enforceable
RULE 1146.2	1-7-2005	Non federally enforceable
RULE 1146.2	1-9-1998	Federally enforceable
RULE 1168	1-7-2005	Non federally enforceable
RULE 1168	10-3-2003	Federally enforceable
RULE 1171	11-7-2003	Federally enforceable
RULE 1171	2-1-2008	Non federally enforceable
RULE 118	12-7-1995	Non federally enforceable
RULE 1303(a)(1)-BACT	12-6-2002	Non federally enforceable
RULE 1303(a)(1)-BACT	5-10-1996	Federally enforceable
RULE 1303(b)(2)-Offset	12-6-2002	Non federally enforceable
RULE 1303(b)(2)-Offset	5-10-1996	Federally enforceable
RULE 1304(a)-Modeling and Offset Exemption	6-14-1996	Federally enforceable
RULE 1304(c)-Offset Exemption	6-14-1996	Federally enforceable
RULE 1401	12-7-1990	Non federally enforceable
RULE 1401	3-4-2005	Non federally enforceable
RULE 1415	10-14-1994	Non federally enforceable
RULE 1426	5-2-2003	Non federally enforceable

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
RULE 1469	10-9-1998	Federally enforceable
RULE 1469	5-2-2003	Non federally enforceable
RULE 1470	6-1-2007	Non federally enforceable
RULE 2001	5-6-2005	Federally enforceable
RULE 2002	1-7-2005	Federally enforceable
RULE 2002	2-14-1997	Federally enforceable
RULE 2004	5-11-2001	Federally enforceable
RULE 2005	5-6-2005	Federally enforceable
RULE 2012	5-6-2005	Federally enforceable
RULE 204	10-8-1993	Federally enforceable
RULE 217	1-5-1990	Federally enforceable
RULE 219	6-1-2007	Non federally enforceable
RULE 219	9-4-1981	Federally enforceable
RULE 3002	11-14-1997	Federally enforceable
RULE 3003	11-14-1997	Federally enforceable
RULE 3003	3-16-2001	Non federally enforceable
RULE 3004	12-12-1997	Federally enforceable
RULE 3004(a)(4)-Periodic Monitoring	12-12-1997	Federally enforceable
RULE 3005	11-14-1997	Federally enforceable
RULE 3005	3-16-2001	Non federally enforceable
RULE 3007	10-8-1993	Federally enforceable
RULE 304	6-9-2006	Non federally enforceable
RULE 401	11-9-2001	Non federally enforceable
RULE 401	3-2-1984	Federally enforceable
RULE 402	5-7-1976	Non federally enforceable
RULE 404	2-7-1986	Federally enforceable
RULE 405	2-7-1986	Federally enforceable
RULE 407	4-2-1982	Federally enforceable
RULE 408	5-7-1976	Federally enforceable
RULE 409	8-7-1981	Federally enforceable
RULE 430	7-12-1996	Non federally enforceable
RULE 431.2	5-4-1990	Federally enforceable
RULE 431.2	9-15-2000	Non federally enforceable
RULE 442	12-15-2000	Federally enforceable
RULE 481	1-11-2002	Federally enforceable
40CFR 63 Subpart DDDDD	9-13-2004	Federally enforceable
40CFR 63 Subpart GG	12-8-2000	Federally enforceable

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### SECTION K: TITLE V Administration

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
40CFR 63 Subpart JJ	12-28-1998	Federally enforceable
40CFR 63 Subpart MMMM	1-2-2004	Federally enforceable
40CFR 63 Subpart T, #1	12-8-2000	Federally enforceable
RULE 701	6-13-1997	Federally enforceable

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 1-6-2006]

Except as otherwise provided in Rule 1107

(1) VOC Content of Coatings

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below:

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
General One-Component	275	275	2.3	2.3	275	275	2.3	2.3
General Multi-Component	340	340	2.8	2.8	275	275	2.3	2.3
Military Specification	340	340	2.8	2.8	275	275	2.3	2.3
Etching Filler	420	420	3.5	3.5	420	420	3.5	3.5
Solar-Absorbent	420	420	3.5	3.5	360	360	3.0	3.0
Heat-Resistant	420	420	3.5	3.5	360	360	3.0	3.0
Extreme High-Gloss	420	340	3.5	2.8	360	360	3.0	3.0
Metallic	420	420	3.5	3.5	420	420	3.5	3.5

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 1-6-2006]

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates, cont.</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
Extreme Performance	420	420	3.5	3.5	360	360	3.0	3.0
Prefabricated Architectural One-Component	420	275	3.5	2.3	275	275	2.3	2.3
Prefabricated Architectural Multi-Component	420	340	3.5	2.8	275	275	2.3	2.3
Touch Up	420	420	3.5	3.5	360	360	3.0	3.0
Repair	420	420	3.5	3.5	360	360	3.0	3.0
Silicone Release	420	420	3.5	3.5	420	420	3.5	3.5
High-Performance Architectural	420	420	3.5	3.5	420	420	3.5	3.5
Camouflage	420	420	3.5	3.5	420	420	3.5	3.5
Vacuum-Metalizing	420	420	3.5	3.5	420	420	3.5	3.5
Mold-Seal	420	420	3.5	3.5	420	420	3.5	3.5
High-Temperature	420	420	3.5	3.5	420	420	3.5	3.5
Electric-Insulating Varnish	420	420	3.5	3.5	420	420	3.5	3.5
Pan Backing	420	420	3.5	3.5	420	420	3.5	3.5
Pretreatment Coatings	420	420	3.5	3.5	420	420	3.5	3.5

- (2) A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 11-9-2001]

Except as otherwise provided in Rule 1107

(1) VOC Content of Coatings

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below:

<b>LIMITS</b>				
<b>Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds</b>				
<b><u>Coating</u></b>	<b><u>Air Dried</u></b>	<b><u>(lb/gal)</u></b>	<b><u>Baked</u></b>	<b><u>(lb/gal)</u></b>
General				
One-Component	275	(2.3)	275	(2.3)
Multi-Component	340	(2.8)	275	(2.3)
Military Specification	340	(2.8)	275	(2.3)
Etching Filler	420	(3.5)	420	(3.5)
Solar-Absorbent	420	(3.5)	360	(3.0)
Heat-Resistant	420	(3.5)	360	(3.0)
Extreme High-Gloss	420	(3.5)	360	(3.0)
Metallic	420	(3.5)	420	(3.5)
Extreme Performance	420	(3.5)	360	(3.0)
Prefabricated Architectural Component	420	(3.5)	275	(2.3)
Touch Up	420	(3.5)	360	(3.0)
Repair	420	(3.5)	360	(3.0)
Silicone Release	420	(3.5)	420	(3.5)
High Performance Architectural	420	(3.5)	420	(3.5)
Camouflage	420	(3.5)	420	(3.5)
Vacuum-Metalizing	420	(3.5)	420	(3.5)
Mold-Seal	420	(3.5)	420	(3.5)
High-Temperature	420	(3.5)	420	(3.5)
Electric-Insulating Varnish	420	(3.5)	420	(3.5)
Pan Backing	420	(3.5)	420	(3.5)
Pretreatment Coatings	420	(3.5)	420	(3.5)

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1107 11-9-2001]**

- (2) A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-8-1996]

- (1) Except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, or solicit the application of, any architectural coating which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, or manufacture, blend, or repackage such a coating for use within the District.
- (2) Except as provided in paragraphs (c)(3) and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, solicit the application of, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified.

#### TABLE OF STANDARDS

#### VOC LIMITS

#### Grams of VOC Per Liter of Coating, Less Water And Less Exempt Compounds

COATING	Limit*	Effective Date of Adoption	Effective 1/1/1998	Effective 1/1/1999	Effective 7/1/2001	Effective 1/1/2005	Effective 7/1/2008
Bond Breakers	350						
Clear Wood Finishes							
Varnish	350						
Sanding Sealers	350						
Lacquer	680		550			275	
Concrete-Curing Compounds	350						
Dry-Fog Coatings	400						
Fire-proofing Exterior Coatings	350	450		350			
Fire-Retardant Coatings							
Clear	650						
Pigmented	350						
Flats	250						
Graphic Arts (Sign) Coatings	500					100	50
Industrial Maintenance							

## FACILITY PERMIT TO OPERATE

### NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

#### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-8-1996]

Primers and Topcoats						
Alkyds	420					
Catalyzed Epoxy	420					
Bituminous Coatings	420					
Materials						
Inorganic Polymers	420					
Vinyl Chloride Polymers	420					
Chlorinated Rubber	420					
Acrylic Polymers	420					
Urethane Polymers	420					
Silicones	420					
Unique Vehicles	420					
Japans/Faux Finishing	350	700		350		
Coatings						
Magnesite Cement Coatings	600			450		
Mastic Coatings	300					
Metallic Pigmented Coatings	500					
Multi-Color Coatings	420		250			
Pigmented Lacquer	680		550		275	
Pre-Treatment Wash Primers	780					
Primers, Sealers, and	350					
Undercoaters						
Quick-Dry Enamels	400					
Roof Coatings	300					
Shellac						
Clear	730					
Pigmented	550					
Stains	350					
Swimming Pool Coatings						
Repair	650					
Other	340					
Traffic Coatings	250		150			
Waterproofing Sealers	400					
Wood Preservatives						
Below-Ground	350					
Other	350					

\* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

**FACILITY PERMIT TO OPERATE  
NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS  
[RULE 1113 11-8-1996]**

**TABLE OF STANDARDS (cont.)**

**VOC LIMITS**

**Grams of VOC Per Liter of Material**

COATING	Limit
Low-Solids Coating	120

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-13-2007]**

- (1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.
- (2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings, except anti-graffiti coatings, for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-13-2007]

#### TABLE OF STANDARDS VOC LIMITS

**Grams of VOC Per Liter of Coating,  
 Less Water and Less Exempt Compounds**

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond Breakers	350							
Clear Wood Finishes	350					275		
Varnish	350					275		
Sanding Sealers	350					275		
Lacquer	680	550			275			
Clear Brushing Lacquer	680				275			
Concrete-Curing Compounds	350						100	
Concrete-Curing Compounds For Roadways and Bridges**	350							
Dry-Fog Coatings	400						150	
Fire-Proofing Exterior Coatings	450	350						
Fire-Retardant Coatings***								
Clear	650							
Pigmented	350							
Flats	250	100						50
Floor Coatings	420		100			50		
Graphic Arts (Sign) Coatings	500							
Industrial Maintenance (IM) Coatings	420			250		100		
High Temperature IM Coatings			420					
Zinc-Rich IM Primers	420		340			100		
Japans/Faux Finishing Coatings	700	350						
Magnesite Cement Coatings	600	450						
Mastic Coatings	300							
Metallic Pigmented Coatings	500							
Multi-Color Coatings	420	250						
Nonflat Coatings	250		150			50		
Nonflat High Gloss	250		150				50	

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-13-2007]

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Pigmented Lacquer	680	550			275			
Pre-Treatment Wash Primers	780		420					
Primers, Sealers, and Undercoaters	350		200			100		
Quick-Dry Enamels	400		250			150	50	
Quick-Dry Primers, Sealers, and Undercoaters	350		200			100		
Recycled Coatings			250					
Roof Coatings	300		250		50			
Roof Coatings, Aluminum	500				100			
Roof Primers, Bituminous	350		350					
Rust Preventative Coatings	420		400			100		
Shellac								
Clear	730							
Pigmented	550							
Specialty Primers	350					250	100	
Stains	350		250				100	
Stains, Interior	250							
Swimming Pool Coatings								
Repair	650		340					
Other	340							
Traffic Coatings	250	150					100	
Waterproofing Sealers	400		250			100		
Waterproofing	400					100		
Concrete/Masonry Sealers								
Wood Preservatives								
Below-Ground	350							
Other	350							

\* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.

\*\* Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

\*\*\* The Fire-Retardant Coating category will be eliminated on January 1, 2007 and subsumed by the coating category for which they are formulated.

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1113 7-13-2007]**

**TABLE OF STANDARDS (cont.)**  
**VOC LIMITS**

**Grams of VOC Per Liter of Material**

COATING	Limit
Low-Solids Coating	120

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1124 9-21-2001]

Except as otherwise provided in Rule 1124

- (1) VOC Content of Aerospace Materials
  - (A) A person shall not apply to aerospace components any materials, including any VOC-containing materials added to the original material supplied by the manufacturer, which contain VOC in excess of the limits specified below:

<b>VOC Limit</b>			
<b>Grams of VOC per Liter, Less Water and Less Exempt Compounds</b>			
<b>Primers</b>	<b>Current VOC Limit</b>	<b>VOC Limit Effective 1-1-03</b>	<b>VOC Limit Effective 1-1-05</b>
General Primer	350	350	350
Low-Solids Corrosion Resistant Primer	350	350	350
Pretreatment Primer	780	780	780
Rain Erosion-Resistant Coating Compatible Primer	850	850	850
Adhesion Promoter	850	850	250
<b>Adhesive Bonding Primer</b>			
New Commercial Aircraft	805	250	250
All Military Aircraft	805	805	805
Remanufactured Commercial Aircraft Parts	805	805	805
Sonic and Acoustic Applications	805	805	805
<b>Adhesive Bonding Primer</b>			
Long Term	250	250	250
Short Term	250	250	250

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1124 9-21-2001]

Coatings	Current VOC Limit	VOC Limit Effective 3-01-02
Topcoat	420	420
Clear Topcoat	520	520
Unicoat	420	420
Wing Coating	750	750
Impact Resistant Coating	420	420
High-Temperature Coating	850	850
Antichafe Coating	600	420
Rain Erosion-Resistant Coating	800	800
Conformal Coating	750	750
Optical Anti-Reflective Coating	700	700
Scale Inhibitor	880	880
Metallized Epoxy Coating	700	700
Electric or Radiation Effect Coating	800	800
Temporary Protective Coating	250	250
Fuel Tank Coatings	420	420
Mold Release Coatings	780	780
Flight Test Coatings		
Used on Missiles or Single Use Target Craft	420	420
All Other	840	840
Fire Resistant Coatings		
Commercial	650	650
Military	970	800
Wire Coatings		
Phosphate Ester Resistant Ink	925	925
Other	420	420
Space Vehicle Coatings		
Electrostatic Discharge Protection Coating	800	800
Other	1000	1000

**FACILITY PERMIT TO OPERATE  
 NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1124 9-21-2001]**

<b>Adhesives</b>	<b>Current VOC Limit</b>
Non-Structural Adhesive	250
Structural Adhesive	
Autoclavable	50
Non-Autoclavable	850
Space Vehicle Adhesive	800
Fuel Tank Adhesive	620

<b>Sealants</b>	<b>Current VOC Limit</b>	<b>VOC Limit Effective 3-01-02</b>
Fastener Sealant	675	675
Extrudable, Rollable or Brushable Sealant	600	280
Other	600	600

<b>Maskants</b>	<b>Current VOC Limit</b>
For Chemical Processing	250
For Chemical Milling	
Type I	250
Type II	160
Photolithographic	850
Touch-up, Line Sealer Maskants	750

<b>Lubricants</b>	<b>Current VOC Limit</b>
Fastener Installation	
Solid-Film Lubricant	880
Dry Lubricative Materials	675
Fastener-Lubricative Coatings, Fastener Manufacturing	
Solid Film Lubricant	250
Dry Lubricative Materials	120
Barrier Coating	420
Non-Fastener Lubricative Coatings, Fastener Manufacturing	
Solid Film Lubricant	880
Dry Lubricative Materials	675

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1124 9-21-2001]**

<b>VOC LIMIT</b>	
<b>Grams of VOC per Liter of Material</b>	
<b>Cleaning Solvents and Strippers</b>	<b>Current VOC Limit</b>
Cleaning Solvents	200 g/L or 45 mm Hg VOC Composite Partial Pressure
Strippers	300 g/L or 9.5 mm Hg VOC Composite Partial Pressure

- (B) Documents shall be provided to the Executive Officer or his designee demonstrating that unicoat is being used in lieu of the application of a primer and topcoat, and the applicant must receive written approval for the use of unicoat specifying the conditions of application from the Executive Officer or his designee.
  - (C) For low-solids adhesives, coatings, primers or sealants, the appropriate limits in subparagraph (c)(1)(A) shall be expressed in grams of VOC per liter of material.
- (2) Solvent Cleaning Operations; Storage and Disposal of VOC-Containing Materials
- (A) Cleaning of material application equipment and storage of solvent laden cloth and paper shall comply with provisions of Rule 1171.
  - (B) A person shall not atomize any solvent into open air.

**FACILITY PERMIT TO OPERATE  
 NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1136 6-14-1996]**

Except as otherwise provided in Rule 1136

- (a) The operator shall not apply any coating to a wood product which has a VOC content, including any VOC-containing material added to the original coating supplied by the manufacturer, which exceeds the applicable limit specified below:

<u>COATING</u>	<b>VOC LIMITS</b>		
	Grams Per Liter (lb/gal) of Coating, [lbs VOC/lb of solids], Less Water and Less Exempt Compounds		
	<u>Current Limit</u>		<u>On and After</u> <u>7/1/2005</u>
	<u>I</u>	<u>or</u>	<u>II</u>
Clear Sealers	550 (4.6) [1.39]	680 (5.7) [3.36]	275 (2.3) [0.36]
Clear Topcoat	550 (4.6) [1.37]	275 (2.3) [0.35]	275 (2.3) [0.35]
Pigmented Primers, Sealers & Undercoats	550 (4.6) [1.06]	600 (5.0) [1.08]	275 (2.3) [0.21]
Pigmented Topcoats	550 (4.6) [1.10]	275 (2.3) [0.25]	275 (2.3) [0.25]

The operator shall use coatings on a wood product that comply with either all VOC limits in column I or all VOC limits in column II. The operator that applies a primer, sealer or undercoat, but not a topcoat, to a wood product, shall be subject to column I for that wood product.

- (2) Notwithstanding the requirements of clause (a)(1), an operator that applies a topcoat and a primer, sealer or undercoat to a shutter may, until July 1, 2005, choose to comply with the VOC limits specified below for that shutter:

<b>VOC LIMITS</b>	
Grams Per Liter, (lb/gal) of Coating, [lbs VOC/lb of solids], Less Water and Less Exempt Compounds	
<u>COATING</u>	
Clear Sealers	275 (2.3) [0.36]
Clear Topcoat	680 (5.7) [2.99]
Pigmented Primers, Sealers & Undercoats	275 (2.3) [0.33]
Pigmented Topcoats	600 (5.0) [1.38]

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1136 6-14-1996]**

(3)

**VOC LIMITS**

Grams Per Liter, (lb/gal) of Coating, [lbs VOC/lb of solids],  
Less Water and Less Exempt Compounds

<u>COATING</u>	<u>Current Limit</u>	<u>On and After</u> <u>7/1/2005</u>
Barrier Coat - Plastic Components	760 (6.3) [3.9]	275 (2.3) [0.28]
Composite Wood Edge Filler	550 (4.6) [1.15]	275 (2.3) [0.31]
Extreme Performance Coatings	420 (3.5) [0.51]	275 (2.3) [0.33]
Fillers	500 (4.2) [0.66]	275 (2.3) [0.18]
High-Solid Stains	550 (4.6) [1.23]	350 (2.9) [0.42]
Inks	500 (4.2) [0.96]	500 (4.2) [0.96]
Mold-Seal Coatings	750 (6.3) [4.2]	750 (6.3) [4.2]
Multi-Colored Coatings	685 (5.7) [2.6]	275 (2.3) [0.33]

**VOC LIMITS**

Grams Per Liter (lb/gal) of Material

<u>COATING</u>	<u>Current Limit</u>	<u>On and After</u> <u>7/1/2005</u>
Low-Solids Barrier Coat - Plastic Components	760 (6.3)	120 (1.0)
Low-Solid Stains, Toners, and Washcoats	480 (4.0)	120 (1.0)

Any coating subject to this rule that meets any of the three VOC limit formats (grams per liter, lb/gal, or lbs VOC/lb of solids) is in compliance with this subparagraph.

- (4) The VOC limit for japan coatings is 700 grams per liter of coatings, less water and exempt compounds, as applied.
- (b) A person shall not use a stripper on wood products unless:
- (1) it contains less than 350 grams of VOC per liter of material; or
  - (2) the VOC composite vapor pressure is 2 mm Hg (0.04 psia) or less at 20°C (68°F).

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1168 1-7-2005]

- (1) Unless otherwise specified in paragraph (c)(2), a person shall not apply any adhesives, adhesive bonding primers, adhesive primers, or any other primer which have a VOC content in excess of 250 g/L less water and less exempt compounds.
- (2) A person shall not apply adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primer which have a VOC content in excess of the limits specified below:

**VOC Limit\*, Less Water and Less Exempt Compounds in Grams per Liter**

Architectural Applications	Current VOC Limit*
Indoor Carpet Adhesives	50
Carpet Pad Adhesives	50
Outdoor Carpet Adhesives	150
Wood Flooring Adhesive	100
Rubber Floor Adhesives	60
Subfloor Adhesives	50
Ceramic Tile Adhesives	65
VCT and Asphalt Tile Adhesives	50
Dry Wall and Panel Adhesives	50
Cove Base Adhesives	50
Multipurpose Construction Adhesives	70
Structural Glazing Adhesives	100
Single Ply Roof Membrane Adhesives	250

**FACILITY PERMIT TO OPERATE  
 NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1168 1-7-2005]**

Specialty Applications	VOC Limits and Effective Dates**			
	Current VOC Limit*	1-1-05	7-1-05	1-1-07
PVC Welding	510			
CPVC Welding	490			
ABS Welding	400		325	
Plastic Cement Welding	350	250		
Adhesive Primer for Plastic	650		550	
Computer Diskette Manufacturing	350			
Contact Adhesive	80			
Special Purpose Contact Adhesive	250			
Tire Retread	100			
Adhesive Primer for Traffic Marking Tape	150			
Structural Wood Member Adhesive	140			
Sheet Applied Rubber Lining Operations	850			
Top and Trim Adhesive	540			250

\*\* The specified limits remain in effect unless revised limits are listed in subsequent columns.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1168 1-7-2005]

For adhesives, adhesive bonding primers, or any other primer not regulated by the above two tables and applied to the following substrates, the following limits shall apply:

Substrate Specific Applications	Current VOC Limit*
Metal to Metal	30
Plastic Foams	50
Porous Material (except wood)	50
Wood	30
Fiberglass	80

If an adhesive is used to bond dissimilar substrates together the adhesive with the highest VOC content shall be allowed.

Sealants	Current VOC Limit*
Architectural	250
Marine Deck	760
Nonmembrane Roof	300
Roadway	250
Single-Ply Roof Membrane	450
Other	420

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1168 1-7-2005]**

<b>Sealant Primers</b>	<b>Current VOC Limit*</b>
Architectural	
Non Porous	250
Porous	775
Modified Bituminous	500
Marine Deck	760
Other	750

\* For low-solid adhesives or sealants the VOC limit is expressed in grams per liter of material as determined in paragraph (b)(32); for all other adhesives and sealants, VOC limits are expressed as grams of VOC per liter of adhesive or sealant less water and less exempt compounds as determined in paragraph (b)(31).

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1168 10-3-2003]

- (1) Unless otherwise specified in paragraph (c)(2), a person shall not apply any adhesives, adhesive bonding primers, adhesive primers, or any other primer which have a VOC content in excess of 250 g/L less water and less exempt compounds.
- (2) A person shall not apply adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primer which have a VOC content in excess of the limits specified below:

**VOC Limit\*, Less Water and Less Exempt Compounds in Grams per Liter**

Architectural Applications	Current VOC Limit
Indoor Carpet Adhesives	50
Carpet Pad Adhesives	50
Outdoor Carpet Adhesives	150
Wood Flooring Adhesive	100
Rubber Floor Adhesives	60
Subfloor Adhesives	50
Ceramic Tile Adhesives	65
VCT and Asphalt Tile Adhesives	50
Dry Wall and Panel Adhesives	50
Cove Base Adhesives	50
Multipurpose Construction Adhesives	70
Structural Glazing Adhesives	100
Single Ply Roof Membrane Adhesives	250

\* For low-solid adhesives or sealants the VOC limit is expressed in grams per liter of material as determined in paragraph (b)(32); for all other adhesives and sealants, VOC limits are expressed as grams of VOC per liter of adhesive or sealant less water and less exempt compounds as determined in paragraph (b)(31).

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1168 10-3-2003]

.Specialty Applications	VOC Limits and Effective Dates**			
	Current VOC Limit	6-7-02	1-1-03	1-1-05
PVC Welding	510			285
CPVC Welding	490			270
ABS Welding	400			
Plastic Cement Welding	350			250
Adhesive Primer for Plastic	650			250
Computer Diskette Manufacturing	350			
Contact Adhesive	250		80	
Special Purpose Contact Adhesive	250			
Tire Retread	100			
Adhesive Primer for Traffic Marking Tape	150			
Structural Wood Member Adhesive	140			
Sheet Applied Rubber Lining Operations	850			
Top and Trim Adhesive	250	540		250

\*\* The specified limits remain in effect unless revised limits are listed in subsequent columns.

Substrate Specific Applications	Current VOC Limit
Metal to Metal	30
Plastic Foams	50
Porous Material (except wood)	50

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 1168 10-3-2003]

Substrate Specific Applications	Current VOC Limit
Wood	30
Fiberglass	80

If an adhesive is used to bond dissimilar substrates together the adhesive with the highest VOC content shall be allowed.

Sealants	Current VOC Limit
Architectural	250
Marine Deck	760
Nonmembrane Roof	300
Roadway	250
Single-Ply Roof Membrane	450
Other	420

Sealant Primers	Current VOC Limit
Architectural	
Non Porous	250
Porous	775
Modified Bituminous	500
Marine Deck	760
Other	750

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1171 11-7-2003]**

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application	
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	500 (4.2)
(iii) Medical Devices & Pharmaceuticals	800 (6.7)
(B) Repair and Maintenance Cleaning	
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	900 (7.5)
(iii) Medical Devices & Pharmaceuticals	
(A) Tools, Equipment, & Machinery	800 (6.7)
(B) General Work Surfaces	600 (5.0)

**FACILITY PERMIT TO OPERATE  
 NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1171 11-7-2003]**

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(C) Cleaning of Coatings or Adhesives Application Equipment	550 (4.6)
(D) Cleaning of Ink Application Equipment	
(i) General	25 (0.21)
(ii) Flexographic Printing	25 (0.21)
(iii) Gravure Printing	
(A) Publication	750 (6.3)
(B) Packaging	25 (0.21)
(iv) Lithographic or Letter Press Printing	
(A) Roller Wash – Step 1	600 (5.0)
(B) Roller Wash-Step 2, Blanket Wash, & On-Press Components	800 (6.7)
(C) Removable Press Components	25 (0.21)
(v) Screen Printing	750 (6.3)
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	800 (6.7)

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1171 11-7-2003]**

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(vii) Specialty Flexographic Printing	600 (5.0)
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)

## FACILITY PERMIT TO OPERATE

### NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

#### APPENDIX B: RULE EMISSION LIMITS [RULE 1171 2-1-2008]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		
(iii) Medical Devices & Pharmaceuticals	800 (6.7)		
(B) Repair and Maintenance Cleaning			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 1171 2-1-2008]**

SOLVENT CLEANING ACTIVITY (cont.)	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(iii) Medical Devices & Pharmaceuticals			
(A) Tools, Equipment, & Machinery	800 (6.7)		
(B) General Work Surfaces	600 (5.0)		
(C) Cleaning of Coatings or Adhesives Application Equipment	25 (0.21)		
(D) Cleaning of Ink Application Equipment			
(i) General	25 (0.21)		
(ii) Flexographic Printing	25 (0.21)		
(iii) Gravure Printing			
(A) Publication	100 (0.83)		
(B) Packaging	25 (0.21)		
(iv) Lithographic (Offset) or Letter Press Printing			
(A) Roller Wash, Blanket Wash, & On-Press Components			
(I) Newsprint	100 (0.83)		

**FACILITY PERMIT TO OPERATE  
 NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 1171 2-1-2008]**

	<b>CURRENT LIMITS*</b>	<b>EFFECTIVE 1/1/2008*</b>	<b>EFFECTIVE 1/1/2009</b>
<b>SOLVENT CLEANING ACTIVITY (cont.)</b>	<b>VOC g/l (lb/gal)</b>	<b>VOC g/l (lb/gal)</b>	<b>VOC g/l (lb/gal)</b>
(II) Other Substrates	500 (4.2)	100 (0.83)	
(B) Removable Press Components	25 (0.21)		
(v) Screen Printing	500 (4.2)	100 (0.83)	
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	650 (5.4)	650 (5.4)	100 (0.83)
(vii) Specialty Flexographic Printing	100 (0.83)		
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)		

\* The specified limits remain in effect unless revised limits are listed in subsequent columns.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 2-7-1986]

The operator shall not discharge into the atmosphere from this equipment, particulate matter in excess of the concentration at standard conditions, shown in Table 404(a).

Where the volume discharged is between figures listed in the Table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

**TABLE 404(a)**

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
Cubic meters Per Minute	Cubic feet Per Minute			Cubic meters Per Minute	Cubic feet Per Minute		
25 or less	883 or less	450	0.196	900	31780	118	0.0515
30	1059	420	.183	1000	35310	113	.0493
35	1236	397	.173	1100	38850	109	.0476
40	1413	377	.165	1200	42380	106	.0463
45	1589	361	.158	1300	45910	102	.0445
50	1766	347	.152	1400	49440	100	.0437
60	2119	324	.141	1500	52970	97	.0424
70	2472	306	.134	1750	61800	92	.0402

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 404 2-7-1986]**

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
Cubic meters Per Minute	Cubic feet Per Minute	Milligrams per Cubic Meter	Grains per Cubic Foot	Cubic meters Per Minute	Cubic feet Per Minute	Milligrams per Cubic Meter	Grains per Cubic Foot
80	2825	291	.127	2000	70630	87	.0380
90	3178	279	.122	2250	79460	83	.0362
100	3531	267	.117	2500	88290	80	.0349
125	4414	246	.107	3000	105900	75	.0327
150	5297	230	.100	4000	141300	67	.0293
175	6180	217	.0947	5000	176600	62	.0271
200	7063	206	.0900	6000	211900	58	.0253
250	8829	190	.0830	8000	282500	52	.0227
300	10590	177	.0773	10000	353100	48	.0210
350	12360	167	.0730	15000	529700	41	.0179
400	14130	159	.0694	20000	706300	37	.0162
450	15890	152	.0664	25000	882900	34	.0148
500	17660	146	.0637	30000	1059000	32	.0140
600	21190	137	.0598	40000	1413000	28	.0122
700	24720	129	.0563	50000	1766000	26	.0114
800	28250	123	.0537	70000 or more	2472000 or more	23	.0100

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SPACE & MISSION SYSTEMS

### APPENDIX B: RULE EMISSION LIMITS [RULE 405 2-7-1986]

The operator shall not discharge into the atmosphere from this equipment, solid particulate matter including lead and lead compounds in excess of the rate shown in Table 405(a).

Where the process weight per hour is between figures listed in the table, the exact weight of permitted discharge shall be determined by linear interpolation.

For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

**TABLE 405(a)**

Process Weight Per Hour		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged From All Points of Process		Process Weight Per Hour		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged From All points of Process	
		Kilograms Per Hour	Pounds Per Hour			Kilograms Per Hour	Pounds Per Hour
100 or less	220 or less	0.450	0.99	9000	19840	5.308	11.7
150	331	0.585	1.29	10000	22050	5.440	12.0
200	441	0.703	1.55	12500	27560	5.732	12.6
250	551	0.804	1.77	15000	33070	5.982	13.2
300	661	0.897	1.98	17500	38580	6.202	13.7
350	772	0.983	2.17	20000	44090	6.399	14.1
400	882	1.063	2.34	25000	55120	6.743	14.9
450	992	1.138	2.51	30000	66140	7.037	15.5
500	1102	1.209	2.67	35000	77160	7.296	16.1
600	1323	1.340	2.95	40000	88180	7.527	16.6
700	1543	1.461	3.22	45000	99210	7.738	17.1
800	1764	1.573	3.47	50000	110200	7.931	17.5
900	1984	1.678	3.70	60000	132300	8.277	18.2
1000	2205	1.777	3.92	70000	154300	8.582	18.9

**FACILITY PERMIT TO OPERATE**  
**NORTHROP GRUMMAN SPACE & MISSION SYSTEMS**

**APPENDIX B: RULE EMISSION LIMITS**  
**[RULE 405 2-7-1986]**

Process Weight Per Hour		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged From All Points of Process)		Process Weight Per Hour		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged From All points of Process)	
Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour	Kilograms Per Hour	Pounds Per Hour
1250	2756	2.003	4.42	80000	176400	8.854	19.5
1500	3307	2.206	4.86	90000	198400	9.102	20.1
1750	3858	2.392	5.27	100000	220500	9.329	20.6
2000	4409	2.563	5.65	125000	275600	9.830	21.7
2250	4960	2.723	6.00	150000	330700	10.26	22.6
2500	5512	2.874	6.34	175000	385800	10.64	23.5
2750	6063	3.016	6.65	200000	440900	10.97	24.2
3000	6614	3.151	6.95	225000	496000	11.28	24.9
3250	7165	3.280	7.23	250000	551200	11.56	25.5
3600	7716	3.404	7.50	275000	606300	11.82	26.1
4000	8818	3.637	8.02	300000	661400	12.07	26.6
4500	9921	3.855	8.50	325000	716500	12.30	27.1
5000	11020	4.059	8.95	350000	771600	12.51	27.6
6000	13230	4.434	9.78	400000	881800	12.91	28.5
7000	15430	4.775	10.5	450000	992100	13.27	29.3
8000	17640	5.089	11.2	500000 or more	1102000 or more	13.60	30.0