



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
21865 Copley Drive, Diamond Bar, CA 91765

Title Page	
Facility I.D.#:	800409
Revision #:	18
Date:	August 30, 2007

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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 *Carol Coy*  
Carol Coy  
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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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.



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<b>Process 1 : FABRICATED METALS</b>					
PROCESS TANK, NO.10, CHEM FILM, UNHEATED, CHROMIC ACID, BARIUM NITRATE, SODIUM SILICOFLUORIDE, FERRICYANIDE, WIDTH: 2 FT 2 IN; HEIGHT: 7 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	D319	C162			A433.1, E193.1

<p>* (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</p>	<p>(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</p>
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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.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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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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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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	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: 470064 Permit to Construct Issued: 08/15/07	D326				A433.1, C6.9, E193.1
<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

* (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.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
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

\* (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.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
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

\* (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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AQMD

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

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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.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
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

\* (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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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
<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: 468911 Permit to Construct Issued: 08/15/07	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: 468911 Permit to Construct Issued: 08/15/07	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: 468911 Permit to Construct Issued: 08/15/07	D283				A433.3, E448.1
PROCESS TANK, NO.19, COVERED, ELECTROLESS NICKEL, HEATED, ACETIC ACID, TETRASOD SALT, SODIUM HYPOPHOSPHITE, NH3, LEAD ACE, NI SULFATE, H2SO4, WIDTH: 2 FT; HEIGHT: 2 FT 4 IN; LENGTH: 3 FT A/N: 468911 Permit to Construct Issued: 08/15/07	D284	C162			A433.3, C6.12, 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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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
<b>Process 1 : FABRICATED METALS</b>					
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: 468911 Permit to Construct Issued: 08/15/07	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: 468911 Permit to Construct Issued: 08/15/07	D286				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: 468911 Permit to Construct Issued: 08/15/07	D287	C162			A433.3, E448.1
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: 468911 Permit to Construct Issued: 08/15/07	D288	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  
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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.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: 468911 Permit to Construct Issued: 08/15/07	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: 468911 Permit to Construct Issued: 08/15/07	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: 468911 Permit to Construct Issued: 08/15/07	D291	C162			A433.3, E448.1
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: 468911 Permit to Construct Issued: 08/15/07	D292	C162			A433.3, C6.14, 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  
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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.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: 468911 Permit to Construct Issued: 08/15/07	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: 470066 Permit to Construct Issued: 08/15/07	D294	C162			A433.4, C6.13, E448.1
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: 470066 Permit to Construct Issued: 08/15/07	D295	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.41, ALKALINE RINSE, UNHEATED, SODIUM HYDROXIDE, WIDTH: 1 FT 2 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470066 Permit to Construct Issued: 08/15/07	D327				A433.4
PROCESS TANK, NO.42, GOLD PLATE, WITH A 15V, 25 AMP RECTIFIER, HEATED, SODIUM SULFITE, SULFITE GOLD, SODIUM ARSENITE, ALKALINE SALTS, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470066 Permit to Construct Issued: 08/15/07	D296	C162			A433.4, C6.10, E448.1
PROCESS TANK, NO.43, GOLD PLATE, WITH A 15V, 25 AMP RECTIFIER, HEATED, SODIUM SULFITE, SULFITE GOLD, SODIUM ARSENITE, ALKALINE SALTS, WIDTH: 1 FT 8 IN; HEIGHT: 1 FT 11.5 IN; LENGTH: 2 FT 8 IN A/N: 470066 Permit to Construct Issued: 08/15/07	D297	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.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: 470066 Permit to Construct Issued: 08/15/07	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: 470066 Permit to Construct Issued: 08/15/07	D316	C162			A433.4, C6.1, E448.1
PROCESS TANK, NO.47, TIN/LEAD PLATE, WITH A 15V, 25 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: 470066 Permit to Construct Issued: 08/15/07	D299	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.48, TIN PLATE, WITH A 15V, 25 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: 470066 Permit to Construct Issued: 08/15/07	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; LENGTH: 2 FT 6 IN A/N: 470066 Permit to Construct Issued: 08/15/07	D306	C162			A433.4, E448.1
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; LENGTH: 2 FT 6 IN A/N: 470066 Permit to Construct Issued: 08/15/07	D307	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.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: 470066 Permit to Construct Issued: 08/15/07	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: 470066 Permit to Construct Issued: 08/15/07	D309	C162			A433.4, E448.1
<b>System 5 : AIR POLLUTION CONTROL SYSTEM</b>					
SCRUBBER, PACKED BED, M3, WIDTH: 9 FT; HEIGHT: 8 FT; LENGTH: 16 FT A/N: 468912 Permit to Construct Issued: 08/15/07	C162	D277 D278 D279 D280 D281 D284 D285 D287 D288 D290 D291 D292 D294 D295 D296 D297 D298			C8.3, C8.4, D182.2, E158.1

\* (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>					
		D299 D300 D302 D303 D305 D306 D307 D308 D309 D310 D311 D316 D317 D318 D319 D320 D324 D325			
<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: 457882 Permit to Construct Issued: 08/25/06	D274	C243			B59.4, B59.5, C6.4, E80.4, E448.4, H23.1
OVEN, ELECTRIC, SOLVENT CLEANING AND DRYING, VWR INTERNATIONAL, MODEL NO. 1430S, 25" W X 25" D X 21" H, 0.8 KW A/N: 457883 Permit to Construct Issued: 08/25/06	D275	C243			B59.4, B59.5, C6.4, E80.3, 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 8 : INTERNAL COMBUSTION</b>					
<b>System 1 : ICE</b>					
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			CO: 2.6 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002] ; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012,5-6-2005]  NOX + ROG: 3 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]  PM10: 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
<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: 457881 Permit to Construct Issued: 08/25/06	C243	D274 D275		VOC: (9) [RULE 1124,9-21-2001;RULE 1171,11-7-2003;RULE 1171,7-14-2006]	C1.21, D12.3, 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.



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

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**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	17	10	1
D274	16	6	0
D275	16	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	8	1	3
D285	9	1	3
D286	9	1	3
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D301	4	1	2
D302	5	1	2
D303	5	1	2
D304	5	1	2
D305	6	1	2
D306	14	1	4
D307	14	1	4



## 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]



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

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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:

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	20.0
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

[RULE 1401, 3-4-2005]

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

### B. Material/Fuel Type Limits



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

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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:

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]

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]

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]

### C. Throughput or Operating Parameter Limits



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

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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:

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]



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

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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:

- 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 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 vacuum oven.

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

[Devices subject to this condition : D274, D275]

- 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]



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

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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:

- 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]



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

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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:

- 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]



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

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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:

- 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]

- 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]

- 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]



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

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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:

- 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]



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

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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:

- 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, 6-3-2005; **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]



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

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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:

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**



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

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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:

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]

[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]

[RULE 1122, 10-1-2004]

[Devices subject to this condition : D274]

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]

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



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

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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:

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]

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

The operator may conduct heated solvent cleaning in this oven.

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]



## 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:

E448.5 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, 6-3-2005; **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]

### H. Applicable Rules

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]



## 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:

H23.6 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]

### K. Record Keeping/Reporting

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, 6-3-2005; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1470, 6-1-2007]

[Devices subject to this condition : D328]