

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions  |
|---|--------|---|---|--------------------------------|---|
| <b>Process 1: CONTROL EQUIPMENT</b>   |        |   |   |                                |   |
| SCRUBBER, PACKED BED,<br>HARRINGTON, MODEL NO. HPH<br>55-4<br>A/N: 515057<br>Permit to Construct Issued: 12/07/10   | C4     | D545 D546   |   | PM: (9) [RULE 404, 2-7-1986]   | C8.2, C8.9,<br>D90.1, E158.1,<br>E159.1, K67.3            |
| SCRUBBER, PACKED BED,<br>HARRINGTON, MODEL NO. HPH<br>78-4, WIDTH: 8FT, LENGTH: 6FT 3IN,<br>DEPTH:7FT, WITH A 4FT PACKING<br>DEPTH, A 30-HP EXHAUST FAN<br>AND THREE 2-HP RECIRCULATION<br>PUMPS<br>A/N: 502641<br>Permit to Construct Issued: 08/24/10 | C6     | D428 D429<br>D430 D431<br>D432 D433<br>D434 D435<br>D438 D501<br>D502 D503<br>D537 D595<br>D597 |   | PM: (9) [RULE 404, 2-7-1986]   | C8.3, C8.9,<br>D90.1, E158.1,<br>E159.1, K67.3            |
| SCRUBBER, FS21, HARRINGTON,<br>WITH A MIST ELIMINATOR<br>SECTION<br>A/N:  | C160   | D183 D189<br>D374 D375<br>D378 D382<br>D386 D388<br>D390 D391<br>D403 D404<br>D528 D613         |   |                                | C8.3, C8.9,<br>D90.1, E158.1,<br>E159.1,<br>I331.1, K67.3 |
| SCRUBBER, FS-41, HARRINGTON,<br>MODEL NO. HPH 78- FB, MIST<br>ELIMINATOR, A 15 H.P. EXHAUST<br>FAN, 9 FT 8 IN W. X 15 FT L. X 10 FT<br>1 IN H., WITH THREE 3-HP WATER<br>CIRCULATION PUMP<br>A/N:   | C161   | D94 D96 D97<br>D510 D511<br>D512 D513<br>D514 D516<br>D517 D522<br>D523 D524 E611               |   |                                | C8.5, C8.9,<br>D90.1, E158.1,<br>E159.1,<br>I331.1, K67.3 |

- \* (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

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| <b>Process 1: CONTROL EQUIPMENT</b>   |        |  |   |  |   |
| SCRUBBER, PACKED BED,<br>HARRINGTON, HPH 66-4,<br>WIDTH: 7FT 3IN; HEIGHT: 8FT 2IN;<br>LENGTH: 10FT 5IN; WITH A 4FT<br>PACKING DEPTH, A20-HP<br>EXHAUST FAN, AND THREE 2-HP<br>CIRCULATION PUMPS<br>A/N: 503380<br>Permit to Construct Issued: 01/05/10            | C232   | D349 D383<br>D397 D398<br>D406 D407<br>D477 D507<br>D508 D509<br>D552 D584<br>D596 |   | PM: (9) [RULE 404, 2-7-1986]   | C8.1, C8.9,<br>D90.1, E158.1,<br>E159.1,<br>I331.1, K67.3 |
| SCRUBBER, PACKED BED,<br>HARRINGTON, HPH 78-4<br>A/N: 455307<br>Permit to Construct Issued: 11/16/06  | C233   | D540   |   | PM: (9) [RULE 404, 2-7-1986]   | C8.3, C8.9,<br>D90.1, E158.1,<br>K67.3                    |
| OXIDIZER, THERMAL, NO. 4,<br>ALLIANCE SYSTEMS, MODEL NO.<br>306-RTO, 3 BED HOT ROCK TYPE,<br>NATURAL GAS, WITH A 30-HP<br>EXHAUST FAN, 10-HP BYPASS FAN<br>AND A 3.0-HP COMBUSTION<br>BLOWER, 1.5 MMBTU/HR<br>A/N: 474064<br>Permit to Construct Issued: 03/25/08 | C364   | D346 D347<br>D350 D352<br>D353 D354<br>D355 D357<br>D358 D359<br>D361 D482<br>D589 | NOX: PROCESS<br>UNIT**                  | CO: 2000 PPMV (5) [RULE<br>407, 4-2-1982]; NOX: 130<br>LBS/MMSCF NATURAL<br>GAS (1) [RULE 2012,<br>5-6-2005]; PM: (9) [RULE 404,<br>2-7-1986]; PM: 0.1<br>GRAINS/SCF (5) [RULE 409,<br>8-7-1981] | A72.1, D29.2,<br>E193.1, K40.1                            |
| OXIDIZER, THERMAL, NO. 2,<br>ALLIANCE SYSTEMS, MODEL NO.<br>306-RTO, 3 BED HOT ROCK TYPE,<br>NATURAL GAS, WITH A 30-HP<br>EXHAUST FAN, 10-HP BYPASS FAN<br>AND A 3.0-HP COMBUSTION<br>BLOWER, 1.5 MMBTU/HR<br>A/N: 445656<br>Permit to Construct Issued: 11/16/06 | C460   | D157 D301<br>D481 D587<br>D588   | NOX: PROCESS<br>UNIT**                  | CO: 2000 PPMV (5) [RULE<br>407, 4-2-1982]; NOX: 130<br>LBS/MMSCF NATURAL<br>GAS (1) [RULE 2012,<br>5-6-2005]; PM: (9) [RULE 404,<br>2-7-1986]; PM: 0.1<br>GRAINS/SCF (5) [RULE 409,<br>8-7-1981] | A72.1, D29.2,<br>E193.1, K40.1                            |

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 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
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| <b>Process 1: CONTROL EQUIPMENT</b>   |        |   |   |  |  |
| OXIDIZER, HOT BED, NO. 3, GRACE<br>TEC SYSTEMS, MODEL NO.<br>ENTERPRISE IIL-060, NATURAL<br>GAS, TWO ZONES, 8 FT W. X 18 FT<br>L. X 10 FT H., 1.5 MMBTU/HR<br>A/N: 455305<br>Permit to Construct Issued: 11/09/06 | C305   | D76 D77 D78<br>D82 D274 D299<br>D333 D337<br>D484 D498<br>D571 D572 | NOX: PROCESS<br>UNIT**                  | CO: 2000 PPMV (5) [RULE<br>407, 4-2-1982]; NOX: 130<br>LBS/MMSCF NATURAL<br>GAS (1) [RULE 2012,<br>5-6-2005]; PM: (9) [RULE 404,<br>2-7-1986]; PM: 0.1<br>GRAINS/SCF (5) [RULE 409,<br>8-7-1981] | A72.1, A72.3,<br>D29.2, E193.1,<br>K40.1       |
| <b>Process 4: DEGREASERS</b>  |        |   |   |  | P13.2  |
| DEGREASER, VAPOR, WITH<br>CONDENSER, BARON-BLAKESLEE,<br>MODEL 37-14-21-VLE, WIDTH: 1 FT<br>6 IN; LENGTH: 3 FT 5 IN; HEIGHT: 4<br>FT 10 IN; 3 KW<br>A/N:  | D612   |   |   |  | B59.21,<br>B59.70,<br>D322.2,<br>H23.7, H339.1 |
| <b>Process 9: BPL LAB</b>   |        |   |   |  | P13.1  |
| <b>System 1: Photolithographic Processes</b>  |        |   |   |  |  |
| BENCH, PHOTORESIST COATER<br>NO. 1<br>A/N: 499348<br>Permit to Construct Issued: 09/11/09   | D411   | C455  |   |  | B59.14, C1.24                                  |
| BENCH, PHOTORESIST COATER<br>NO. 2<br>A/N: 499348<br>Permit to Construct Issued: 09/11/09   | D412   | C455  |   |  | B59.14, C1.24                                  |
| BENCH, TRACK DEVELOP/STRIP<br>STATIONS #1 & 2, HEIGHT: 5FT<br>10IN; LENGTH: 5FT; WIDTH: 3FT<br>10IN<br>A/N: 499348<br>Permit to Construct Issued: 09/11/09  | D438   | C6  |   |  | B59.20   |

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 (5) (5A) (5B) Denotes command and control emission limit  
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 (7) Denotes NSR applicability limit  
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
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| <b>Process 9: BPL LAB</b>   |        |              |   |                                | P13.1         |
| OVEN, NO. 1, LABLINE, MODEL 3490M<br>A/N: 499348<br>Permit to Construct Issued: 09/11/09  | D413   | C455         |   |                                | B59.14, C1.24 |
| OVEN, NO. 2, LABLINE, MODEL 3490M<br>A/N: 499348<br>Permit to Construct Issued: 09/11/09  | D414   | C455         |   |                                | B59.14, C1.24 |
| OVEN, YES, MODEL YES-10TA<br>A/N: 499348<br>Permit to Construct Issued: 09/11/09  | D597   | C6           |   |                                | B59.65, C1.56 |
| <b>System 2: Integrated Circuit Fabrication</b>   |        |              |   |                                |               |
| PLASMA ETCHER, BACKSIDE VIA ETCH, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT, 65-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D428   | C6           |   |                                | B59.38        |
| PLASMA ETCHER, BACKSIDE VIA ETCH, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT, 65-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D429   | C6           |   |                                | B59.38        |
| PLASMA ETCHER, BACKSIDE VIA ETCH, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT, 65-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D430   | C6           |   |                                | B59.38        |
| PLASMA ETCHER, BACKSIDE VIA ETCH, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT, 65-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D431   | C6           |   |                                | B59.38        |

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 (5) (5A) (5B) Denotes command and control emission limit  
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| <b>Process 9: BPL LAB</b>   |        |              |   |                                | P13.1      |
| PLASMA ETCHER, BACKSIDE VIA ETCH, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT, 65-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09   | D432   | C6           |   |                                | B59.38     |
| PLASMA ETCHER, BACKSIDE VIA ETCH, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT, 65-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09   | D433   | C6           |   |                                | B59.38     |
| PLASMA ETCHER, MATRIX, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT; 21.4-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09  | D434   | C6           |   |                                | B59.12     |
| PLASMA ETCHER, MATRIX, HEIGHT: 6FT; LENGTH: 3FT; WIDTH: 4FT; 21.4-KVA<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09  | D435   | C6           |   |                                | B59.12     |
| PLASMA ETCHER, ICP NO. 1, TRIKON, MODEL OMEGA, LENGTH: 3FT; WIDTH: 4FT; HEIGHT: 6FT; 65-KVA, WITH THREE VACUUM PUMPS, 2.0-HP TOTAL<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D501   | C6           |   |                                | B59.38     |
| PLASMA ETCHER, ICP NO. 2, TRIKON, MODEL OMEGA, LENGTH: 3FT; WIDTH: 4FT; HEIGHT: 6FT; 65-KVA, WITH THREE VACUUM PUMPS, 2.0-HP TOTAL<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D502   | C6           |   |                                | B59.38     |

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- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
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| <b>Process 9: BPL LAB</b>   |        |              |   |                                | P13.1      |
| PLASMA ETCHER, CLEANER, TWO CHAMBER, TECHNIX, MODEL 800-II, LENGTH 3FT 5IN; WIDTH 3FT 5IN; HEIGHT 6FT 5IN; WITH 3 VACUUM PUMPS, 2.0-HP TOTAL<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09 | D503   | C6           |   |                                | B59.38     |
| PLASMA ETCHER, STS, MODEL MPX HRM, LENGTH: 6 FT; WIDTH: 2 FT 4 IN; HEIGHT: 6 FT 1.75 IN, WITH TWO VACUUM PUMPS<br>A/N: 499350<br>Permit to Construct Issued: 09/11/09                               | D595   | C6           |   |                                | B59.55     |
| <b>Process 10: D1 EAST LAB</b>  |        |              |   |                                | P13.1      |
| <b>System 1: Photolithographic Processes</b>  |        |              |   |                                |            |
| BENCH, PHOTORESIST COATER, SILICON VALLEY GROUP, MODEL NO. 8626, 3 FT W. X 4 FT 10 IN L. X 3 FT 7 IN H., WITH TWO TRACKS<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06                     | D76    | C305         |   |                                |            |
| BENCH, PHOTORESIST COATER, SILICON VALLEY GROUP, MODEL NO. 8626, 3 FT W. X 4 FT 10 IN L. X 3 FT 7 IN H., WITH TWO TRACKS<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06                     | D77    | C305         |   |                                |            |
| BENCH, PHOTORESIST COATER, SILICON VALLEY GROUP, MODEL NO. 8626, 3 FT W. X 4 FT 10 IN L. X 3 FT 7 IN H., WITH TWO TRACKS<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06                     | D78    | C305         |   |                                |            |

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| <b>Process 10: D1 EAST LAB</b>  |        |              |   |                                | P13.1      |
| BENCH, PHOTORESIST STRIPPER, SEMITool NO.4, 3 FT W. X 5 FT L. X 3 FT H., ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06   | D154   | C455         |   |                                |            |
| BENCH, PHOTORESIST STRIPPER, SEMITool NO.3, MODEL NO. SSTC 621270, 18 KVA ELECTRICALLY HEATED, 6 FT 2 IN W. X 3 FT L. X 5 FT 10 IN H, WITH ONE SPINNER<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06 | D274   | C305         |   |                                |            |
| BENCH, PHOTORESIST COATER/DEVELOPER, NO.1, MODEL SCORPIO 839, 4 FT 4 IN W. X 5 FT 10 L. X 5 FT 4 IN H., WITH TWO SPINNERS AND SIX BAKING OVENS<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06         | D299   | C305         |   |                                |            |
| BENCH, PHOTORESIST COATER/DEVELOPER, NO.2, MODEL SCORPIO 839, 4 FT 4 IN W. X 5 FT 10 IN L. X 5 FT 4 IN H., WITH TWO SPINNERS AND SIX BAKING OVENS<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06      | D300   | C161         |   |                                | B59.4      |

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| <b>Process 10: D1 EAST LAB</b>   |        |              |   |                                | P13.1               |
| BENCH, PHOTORESIST STRIPPER, SEMITool NO.7, MODEL NO. EQP222SR, 16.2 KVA ELECTRICALLY HEATED, 4 FT 6 IN W. X 4 FT L. X 5 FT 6 IN H.<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06               | D333   | C305         |   |                                | B27.4, C1.15        |
| BENCH, PHOTORESIST STRIPPER, SEMITool NO. 8, MODEL NO. SSTC401270, 3 FT 3 IN W. X 5 FT 5 IN L. X 5 FT 7 IN H., 7.2 KW ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06         | D335   | C455         |   |                                | B27.4, C1.17        |
| BENCH, PHOTORESIST COATER/DEVELOPER, NO.4, MODEL SCORPIO 839, 4 FT 4 IN W. X 4 FT 3 IN L. X 5 FT 11 IN H., WITH TWO SPINNERS AND SIX BAKING OVENS<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06 | D337   | C305         |   |                                | B27.5, C1.18, H23.2 |
| BENCH, PHOTORESIST STRIPPER, SEMITool NO.6, MODEL NO. EQ22PR, 9.36 KVA ELECTRICALLY HEATED, 4 FT W. X 4 FT 8 IN L. X 5 FT 5 IN H.<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06                 | D520   | C161         |   |                                | B59.4, B59.43       |

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| <b>Process 10: D1 EAST LAB</b>  |        |              |   |                                | P13.1         |
| BENCH, PHOTORESIST DEVELOPER TRACK, SILICON VALLEY GROUP, MODEL NO. SVG-8632 CTD, 5 FT L. X 3 FT W. X 2 FT 8 IN H.<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06 | D521   | C161         |   |                                | B59.4, B59.43 |
| OVEN, PHOTORESIST BAKE, LABLINE MODEL NO. 3490M, 2 FT W. X 1 FT 9 IN L. X 2 FT 11 IN H., 2 KW ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06  | D79    | C455         |   |                                |               |
| OVEN, PHOTORESIST BAKE, LABLINE, MODEL NO. 3490M, 2 FT W. X 1 FT 9 IN L. X 2 FT 11 IN H., 2 KW ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06 | D80    | C455         |   |                                |               |
| OVEN, PHOTORESIST BAKE, LABLINE, MODEL NO. 3490M, 2 FT W. X 1 FT 9 IN L. X 2 FT 11 IN H., 2 KW ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06 | D81    | C455         |   |                                |               |
| OVEN, TRW NO. 1, PHOTORESIST BAKE, ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06   | D276   | C455         |   |                                |               |
| OVEN, TRW NO. 2, PHOTORESIST BAKE, ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06   | D277   | C455         |   |                                |               |

\* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|--|--------|--------------|---|--------------------------------|---------------|
| <b>Process 10: D1 EAST LAB</b>   |        |              |   |                                | P13.1         |
| OVEN, TRW NO. 3, PHOTORESIST BAKE, ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06  | D278   | C455         |   |                                |               |
| OVEN, TRW NO. 7, PHOTORESIST BAKE, ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06  | D279   | C455         |   |                                |               |
| OVEN, VAPOR PRIME, YEILD ENGINEERING, MODEL NO. YES-6, 1 FT 9 IN W. X 2 FT 11 IN L. X 1 FT 9 IN H., ELECTRICALLY HEATED<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06 | D82    | C305         |   |                                |               |
| BENCH, PHOTORESIST COATER, C&D, SEMICONDUCTOR SERVICES, MODEL 8800 SERIES<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06   | D571   | C305         |   |                                | B59.53, C1.51 |
| BENCH, PHOTORESIST COATER, C&D, SEMICONDUCTOR SERVICES, MODEL 8800 SERIES<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06   | D572   | C305         |   |                                | B59.53, C1.51 |
| OVEN, VAPOR PRIME, YIELD ENGINEERING SERVICES, MODEL NO. 310TA<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06  | D573   | C6           |   |                                | B59.53        |
| BENCH, MANUAL PHOTORESIST COATER<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06  | D484   | C305         |   |                                | B59.60, C1.53 |

- \* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|---|--------|--------------|---|--------------------------------|---------------|
| <b>Process 10: D1 EAST LAB</b>  |        |              |   |                                | P13.1         |
| BENCH, DEVELOPER, TRACK, C&D<br>A/N: 455548<br>Permit to Construct Issued: 11/16/06   | D537   | C6           |   |                                | B59.4, B59.55 |
| <b>System 2: Integrated Circuit Fabrication</b>   |        |              |   |                                |               |
| PLASMA ETCHER,<br>PLASMATHERM WAFER BATCH<br>730<br>A/N:  | D96    | C161         |   |                                |               |
| PLASMA ETCHER,<br>DEPOSITION/ETCHER,<br>PLASMATHERM, MODEL DUAL<br>790<br>A/N:  | D97    | C161         |   |                                |               |
| PLASMA ETCHER, PLASMA<br>THERM, MODEL NO. SL720<br>A/N:   | D113   |              |   |                                |               |
| DEPOSITION REACTOR, CHEMICAL<br>VAPOR DEPOSITION, LOCATED IN<br>BUILDING D1 GAAS PILOT LINE,<br>PECVD TYPE, ELECTROTECH,<br>MODEL DELTA 201, WITH THREE<br>VACUUM PUMPS<br>A/N: | D306   |              |   | PM: (9) [RULE 405, 2-7-1986]   | C1.6, K48.4   |
| PLASMA ETCHER,<br>PLASMATHERM, BACKSIDE VIA<br>ETCH<br>A/N:   | D510   | C161         |   |                                | B59.40        |
| PLASMA ETCHER, MATRIX #6,<br>,MATRIX SYSTEM ONE STRIPPER,<br>MODEL NO. 106<br>A/N:  | D511   | C161         |   |                                | B59.40        |

\* (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 SYSTEMS

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

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| Equipment   | ID No. | Connected To | RECLAIM Source Type/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|---|--------|--------------|---|--------------------------------|---------------|
| <b>Process 10: D1 EAST LAB</b>  |        |              |   |                                | P13.1         |
| PLASMA ETCHER, NITRIDE ETCH, VLR II, UNAXIS/PLASMATHERM, MODEL NO. VLR700<br>A/N:   | D512   | C161         |   |                                | B59.40        |
| PLASMA ETCHER, UNAXIS/PLASMATHERM, MODEL NO. VLR700<br>A/N:   | D513   | C161         |   |                                | B59.40        |
| PLASMA ETCHER, NO. 7, MATRIX SYSTEM ONE STRIPPER, MODEL NO. E2053<br>A/N:   | D514   | C161         |   |                                | B59.40        |
| PLASMA ETCHER, NO. 14, MATRIX SYSTEM ONE STRIPPER, MODEL NO. 105E<br>A/N:   | D516   | C161         |   |                                | B59.40        |
| PLASMA ETCHER, NITRIDE ETCH, TEGAL, MODEL NO. 901E<br>A/N:  | D517   | C161         |   |                                | B59.40        |
| PLASMA ETCHER, NO. 3, PLASMA THERM, MODEL NO. SLR SERIES, TWO VACUUM PUMPS<br>A/N:  | D522   | C161         |   |                                | B59.44, C1.36 |
| BENCH, PLASMA DESCUMMER NO.1, TECHNICS, MODEL NO. PE II/IIA, 2 FT 8 IN L X 2 FT 6 IN W, X 2 FT H, 2.2 KVA, AND 0.8 H.P. VACUUM SYSTEM<br>A/N: | D523   | C161         |   |                                | B59.4, B59.43 |

\* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|--|--------|--------------|---|--------------------------------|---------------|
| <b>Process 10: D1 EAST LAB</b>   |        |              |   |                                | P13.1         |
| BENCH, PLASMA DESCUMMER<br>NO. 2, TECHNICS, MODEL NO. PE<br>II/IIA, 2 FT 8 IN L X 2 FT 6 IN W, X 2<br>FT H, 2.2 KVA AND 0.8 H.P.<br>VACUUM SYSTEM<br>A/N:  | D524   | C161         |   |                                | B59.4, B59.43 |
| FURNACE, ELECTRIC, MRL<br>INDUSTRIES, MODEL THERMTEC,<br>80 KW<br>A/N:   | D94    | C161         |   |                                |               |
| ION IMPLANTER, VARIAN, MODEL<br>EHP 500, HEIGHT: 8FT; LENGTH:<br>16FT; WIDTH: 10FT 6IN<br>A/N:   | D425   | C6           |   |                                | B59.12        |
| PLASMA ETCHER, PLASMA<br>THERM, MODEL 790, HEIGHT: 6FT<br>6IN; LENGTH: 3FT 5IN; WIDTH: 3FT<br>5IN, 65-KVA<br>A/N:  | D426   |              |   |                                |               |
| DEPOSITION REACTOR<br>A/N:   | D462   |              |   |                                |               |
| VACUUM METALIZING/VAPOR<br>DEPOSITION, FIJI F200 PLASMA<br>ATOMIC LAYER DEPOSITION(ALD)  | E611   | C161         |   |                                | B59.70        |
| <b>System 4: Solvent Cleaning</b>  |        |              |   |                                |               |
| BENCH, SOLVENT STRIP/LIFTOFF,<br>WAFER PROCESS SYSTEM, MODEL<br>NO. SLFFH-600-SS, 4FT 7IN W X 5FT<br>10IN L X 5FT 10IN H,<br>ELECTRICALLY HEATE<br>A/N: 455303<br>Permit to Construct Issued: 06/23/06 | D474   | C455         |   |                                | B59.47, C1.44 |

\* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|---|--------|--------------|---|--------------------------------|---------------|
| <b>Process 10: D1 EAST LAB</b>  |        |              |   |                                | P13.1         |
| BENCH, SOLVENT STRIP/LIFTOFF, WAFER PROCESS SYSTEM, MODEL NO. SLFFH-600-SS, 4FT 7IN W X 5FT 10IN L X 5FT 10IN H, ELECTRICALLY HEATE<br>A/N: 455303<br>Permit to Construct Issued: 06/23/06  | D476   | C455         |   |                                | B59.47, C1.44 |
| BENCH, PHOTORESIST DEVELOPER, PHOTORESIST DEVELOPER, CHLOROBENZENE SINK, WAFER PROCESS SYSTEMS, MODEL NO. WPS-, 400-FA-SS, 3 FT 4 IN W. X 3 FT 10 IN L. X 6 FT 4 IN H., HEATED 5.4 KVA<br>A/N: 455303<br>Permit to Construct Issued: 06/23/06 | D498   | C305         |   |                                | B59.34, C1.47 |
| <b>Process 11: D1 WEST LAB</b>  |        |              |   |                                | P13.1         |
| <b>System 1: Photolithographic Processes</b>  |        |              |   |                                |               |
| BENCH, PHOTORESIST COATER/DEVELOPER, NO.3, MODEL SCORPIO 841, 4 FT 4 IN W. X 5 FT 10 IN L. X 5 FT 4 IN H., WITH TWO SPINNERS AND ONE BAKING OVEN<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06                                       | D301   | C460         |   |                                |               |
| BENCH, PHOTORESIST COATER NO. 1, 82 IN L. X 36 IN W. X 80 IN H., WITH TWO WAFER CONVEYORS, TWO SPINNERS AND FOUR HOT PLATES<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06  | D346   | C364         |   |                                | B59.50, C1.42 |

- \* (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

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## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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| Equipment  | ID No. | Connected To | RECLAIM Source Type/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions              |
|--|--------|--------------|---|--------------------------------|-------------------------|
| <b>Process 11: D1 WEST LAB</b>   |        |              |   |                                | P13.1                   |
| BENCH, PHOTORESIST COATER<br>NO. 2, 82 IN L. X 52 IN W. X 80 IN H.,<br>WITH TWO WAFER CONVEYORS,<br>TWO SPINNERS AND FOUR HOT<br>PLATES<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06 | D347   | C364         |   |                                | B59.50, C1.42           |
| BENCH, TRACK DEVELOP STATION<br>NO. 1, POTASSIUM HYDROXIDE<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06  | D397   | C232         |   |                                | B59.9                   |
| BENCH, TRACK DEVELOP STATION<br>NO. 2, POTASSIUM HYDROXIDE<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06  | D398   | C232         |   |                                | B59.9                   |
| BENCH, DEVELOPER, C&D<br>SEMICONDUCTOR, MODEL 8800,<br>WIDTH: 3FT 11 IN, HEIGHT: 5FT 10<br>IN, LENGTH:4FT 11 IN<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06                         | D477   | C232         |   |                                | B59.4, B59.36           |
| BENCH, PHOTORESIST COATER,<br>C&D, SEMICONDUCTOR SERVICES,<br>MODEL 8800, WIDTH: 2 FT 11 IN,<br>LENGTH: 8 FT, HEIGHT:3 FT 11 IN<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06         | D481   | C460         |   |                                | B59.49, C1.37,<br>C1.42 |
| OVEN, NO. 2, VAPOR PRIME, 21.625<br>IN L. X 24.25 IN W. X 35 IN H.,<br>ELECTRICALLY HEATED, 2.2 KVA<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06                                     | D349   | C232         |   |                                | B59.52, C1.46           |

\* (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 SYSTEMS

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

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| Equipment  | ID No. | Connected To | RECLAIM Source Type/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions              |
|--|--------|--------------|---|--------------------------------|-------------------------|
| <b>Process 11: D1 WEST LAB</b>   |        |              |   |                                | P13.1                   |
| OVEN, NO. 1, PHOTORESIST BAKE,<br>21.6 IN L. X 24.25 IN W. X 35 IN H.,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06       | D350   | C364         |   |                                | B59.5, C1.42            |
| OVEN, NO. 3, PHOTORESIST BAKE,<br>21.6 IN L. 24.25 IN W. X 35 IN H.,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06         | D352   | C364         |   |                                | B59.5, C1.42            |
| OVEN, NO. 4, PHOTORESIST BAKE,<br>21.6 IN L. X 24.25 IN W. X 35 IN H.,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06       | D353   | C364         |   |                                | B59.5, C1.42            |
| OVEN, NO. 5, PHOTORESIST BAKE,<br>21.6 IN L. X 24.25 W. X 35 IN H.,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06          | D354   | C364         |   |                                | B59.5, C1.42            |
| OVEN, NO. 6, PHOTORESIST BAKE,<br>21.6 IN L. X 24.25 IN W. X 35 IN H.,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06       | D355   | C364         |   |                                | B59.5, C1.42            |
| OVEN, NO. 1, VAPOR PRIME, 19.5 IN<br>L. X 23.75 IN W. X 27.5 IN H.,<br>ELECTRICALLY HEATED, 2.2 KVA<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06 | D348   | C233         |   |                                | B59.4, B59.57,<br>C1.42 |

\* (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 SYSTEMS

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

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| Equipment   | ID No. | Connected To | RECLAIM Source Type/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|---|--------|--------------|---|--------------------------------|---------------|
| <b>Process 11: D1 WEST LAB</b>  |        |              |   |                                | P13.1         |
| OVEN, LABLINE,, LENGTH: 21.6 IN,<br>WIDTH: 24.25 IN, HEIGHT: 35 IN,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06 | D587   | C460         |   |                                | B59.62, C1.42 |
| OVEN, LABLINE,, LENGTH: 21.6 IN,<br>WIDTH: 24.25 IN, HEIGHT: 35 IN,<br>ELECTRICALLY HEATED<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06 | D588   | C460         |   |                                | B59.62, C1.42 |
| OVEN, BARNSTEAD, LABLINE,<br>MODEL 3497M-3<br>A/N: 455302<br>Permit to Construct Issued: 11/16/06   | D589   | C364         |   |                                | B59.62, C1.42 |
| <b>System 2: Integrated Circuit Fabrication</b>   |        |              |   |                                |               |
| PLASMA ETCHER, ETCH NO. 1,<br>65-KVA<br>A/N:  | D374   | C160         |   |                                | B59.8         |
| PLASMA ETCHER, ETCH NO. 2,<br>65-KVA<br>A/N:  | D375   | C160         |   |                                | B59.8         |
| PLASMA ETCHER, CLEAN NO. 1,<br>MATRIX, 6.0-KVA<br>A/N:  | D378   | C160         |   |                                | B59.8         |
| PLASMA ETCHER, CLEAN NO. 5,<br>MATRIX, 6.0-KVA<br>A/N:  | D382   | C160         |   |                                | B59.8         |
| PLASMA ETCHER, CLEAN NO. 6,<br>MATRIX, 6.0-KVA<br>A/N:  | D383   | C232         |   |                                | B59.8         |
| PLASMA ETCHER, CLEAN NO. 9,<br>MATRIX, 6.0-KVA<br>A/N:  | D386   | C160         |   |                                | B59.8         |

- \* (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 SYSTEMS

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

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| Equipment  | ID No. | Connected To | RECLAIM Source Type/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions |
|--|--------|--------------|---|--------------------------------|------------|
| <b>Process 11: D1 WEST LAB</b>   |        |              |   |                                | P13.1      |
| PLASMA ETCHER, CLEAN NO. 11,<br>MATRIX, 6.0-KVA<br>A/N:  | D388   | C160         |   |                                | B59.8      |
| PLASMA ETCHER, DEPOSITION<br>NO. 1, PLASMA THERM INC.<br>65-KVA<br>A/N:  | D390   | C160         |   |                                | B59.8      |
| PLASMA ETCHER, DEPOSITION<br>NO. 2, PLASMA THERM INC.<br>65-KVA<br>A/N:  | D391   | C160         |   |                                | B59.8      |
| PLASMA ETCHER, CLEAN NO. 1,<br>MATRIX, 21.4-KVA<br>A/N:  | D403   | C160         |   |                                | B59.52     |
| PLASMA ETCHER, CLEAN NO. 2,<br>MATRIX, 21.4-KVA<br>A/N:  | D404   | C160         |   |                                | B59.52     |
| PLASMA ETCHER, CLEAN NO. 4,<br>MATRIX, 21.4-KVA<br>A/N:  | D406   | C232         |   |                                | B59.52     |
| PLASMA ETCHER, MATRIX,<br>MODEL EHP500,, WIDTH: 4FT,<br>LENGTH: 3FT, HEIGHT: 6FT, WITH<br>THREE VACUUM PUMPS<br>A/N:                                   | D450   | C233         |   |                                | B59.13     |
| PLASMA ETCHER, ICP NO. 1,<br>TRIKON, MODEL OMEGA, LENGTH:<br>3FT; WIDTH: 4FT; HEIGHT: 6FT;<br>65-KVA, WITH THREE VACUUM<br>PUMPS, 2.0-HP TOTAL<br>A/N: | D507   | C232         |   |                                | B59.52     |

- \* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions |
|--|--------|--------------|---|--------------------------------|------------|
| <b>Process 11: D1 WEST LAB</b>   |        |              |   |                                | P13.1      |
| PLASMA ETCHER, ICP NO. 2,<br>TRIKON, MODEL OMEGA, LENGTH:<br>3FT; WIDTH: 4FT; HEIGHT: 6FT;<br>65-KVA, WITH THREE VACUUM<br>PUMPS, 2.0-HP TOTAL<br>A/N: | D508   | C232         |   |                                | B59.52     |
| PLASMA ETCHER, ICP NO. 3,<br>TRIKON, MODEL OMEGA, LENGTH:<br>3FT; WIDTH: 4FT; HEIGHT: 6FT;<br>65-KVA, WITH THREE VACUUM<br>PUMPS, 2.0-HP TOTAL<br>A/N: | D509   | C232         |   |                                | B59.52     |
| PLASMA ETCHER, DESCUMMER,<br>BRANSON/IPC, MODEL REACTOR<br>CENTER PM 1813, DIMENSIONS:<br>HEIGHT: 3FT; LENGTH: 3FT;<br>WIDTH: 3FT<br>A/N:              | D528   | C160         |   |                                | B27.7      |
| FURNACE, PHOTORESIST<br>COATER/DEVELOPER, THERMCO<br>A/N:  | D183   | C160         |   |                                |            |
| ION IMPLANTER, ION BEAM MILL<br>VACUUM PUMP<br>A/N:  | D182   | C233         |   |                                |            |
| EVAPORATOR, CHA MK50<br>A/N:   | D191   |              |   |                                |            |
| DEPOSITION REACTOR,<br>SPUTTERING NO. 1, 21.4-KVA<br>A/N:  | D407   | C232         |   |                                | B59.52     |
| PROCESS TANK, PASS-THRU ACID<br>UNIT<br>A/N:   | D189   | C160         |   |                                |            |

- \* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions    |
|---|--------|--------------|---|--------------------------------|---------------|
| <b>Process 11: D1 WEST LAB</b>  |        |              |   |                                | P13.1         |
| DEPOSITION REACTOR, VAPOR PRIME, Y.E.S., LENGTH: 19.5IN; WIDTH: 23.75IN; HEIGHT: 27.5IN; ELECTRICALLY HEATED<br>A/N:  | D552   | C232         |   |                                | B59.52, C1.46 |
| PLASMA ETCHER, ICP NO. 3, TRIKON, MODEL OMEGA, LENGTH: 3FT; WIDTH: 4FT; HEIGHT: 6FT; 65-KVA, WITH THREE VACUUM PUMPS, 2.0-HP TOTAL<br>A/N:                          | D584   | C232         |   |                                | B59.58        |
| DEPOSITION REACTOR, PECVD DIELECTRIC, TRIKON TECHNOLOGIES, DELTA 201,65-KVA,, LENGTH: 5FT; WIDTH: 3FT 4IN; HEIGHT: 6FT 1IN, WITH 3 VACUUM PUMPS, 4-HP TOTAL<br>A/N: | D585   |              |   |                                | B59.59        |
| PLASMA ETCHER, NO. 1, MATRIX, MODEL 105E, WIDTH:4FT;LENGTH: 3FT; HEIGHT: 6FT<br>A/N:  | D540   | C233         |   |                                | B59.55        |
| PLASMA ETCHER, TEGAL, MODEL 110, LENGTH: 2 FT 9IN; WIDTH: 6 FT 4 IN; HEIGHT: 6 FT 10IN, WITH TWO VACUUM PUMPS<br>A/N:   | D596   | C232         |   |                                | B59.66, C1.55 |
| <b>System 4: Solvent Cleaning</b>   |        |              |   |                                |               |

\* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions           |
|---|--------|--------------|---|--------------------------------|----------------------|
| <b>Process 11: D1 WEST LAB</b>  |        |              |   |                                | P13.1                |
| BENCH, COATER/DEVELOPER, DEXON, 2 KVA ELECTRICALLY HEATED, 2 FT 6 IN W. X 6 FT L. X 3 FT H.<br>A/N: 474053<br>Permit to Construct Issued: 03/25/08    | D157   | C460         |   |                                | B59.16, E54.1, K48.5 |
| BENCH, SOLVENT CLEANING STATION NO. I, ONE SINK, 3 FT W. X 4 FT L. X 6 FT 8 IN H., UNHEATED<br>A/N: 474053<br>Permit to Construct Issued: 03/25/08    | D357   | C364         |   |                                | B59.19, C1.41        |
| BENCH, SOLVENT CLEANING STATION NO. A, THREE SINKS, 3 FT W. X 5 FT L. X 6 FT 8 IN H., UNHEATED<br>A/N: 474053<br>Permit to Construct Issued: 03/25/08 | D358   | C364         |   |                                | B59.47, C1.41        |
| BENCH, SOLVENT CLEANING STATION NO. B, SIX SINKS, 3 FT W. X 4 FT L. X 6 FT 8 IN H., UNHEATED<br>A/N: 474053<br>Permit to Construct Issued: 03/25/08   | D359   | C364         |   |                                | B59.19, C1.41        |
| BENCH, SOLVENT CLEANING STATION NO. D, THREE SINKS, 3 FT W. X 6 FT L. X 6 FT 8 IN H., UNHEATED<br>A/N: 474053<br>Permit to Construct Issued: 03/25/08 | D361   | C364         |   |                                | B59.47, C1.41        |
| BENCH, SOLVENT STRIP/LIFTOFF, WAFER PROCESS SYSTEMS, 2-KVA ELECTRICALLY HEATED<br>A/N: 474053<br>Permit to Construct Issued: 03/25/08                 | D482   | C364         |   |                                | B59.47, C1.41        |

- \* (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 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/<br>Monitoring Unit | Emissions*<br>And Requirements | Conditions               |
|---|--------|--------------|---|--------------------------------|--------------------------|
| <b>Process 13: 3D LAB</b>   |        |              |   |                                | P13.1                    |
| <b>System 2: Integrated Circuit Fabrication</b>   |        |              |   |                                |                          |
| PLASMA ETCHER, NO. 1, MATRIX,<br>MODEL 105E, WIDTH:4FT;LENGTH:<br>3FT; HEIGHT: 6FT<br>A/N:              | D540   | C233         |   |                                | B59.55                   |
| <b>Process 14: SURFACE PREPARATION</b>  |        |              |   |                                |                          |
| <b>System 1: Etching Line</b>   |        |              |   |                                |                          |
| BENCH, WET STATION, HBT, NO. 1,<br>6FT, UNHEATED<br>A/N: 515056<br>Permit to Construct Issued: 12/07/10 | D545   | C4           |   |                                | B59.4, B59.69,<br>L341.1 |
| BENCH, WET STATION, HBT, NO. 2,<br>6FT, UNHEATED<br>A/N: 515056<br>Permit to Construct Issued: 12/07/10 | D546   | C4           |   |                                | B59.4, B59.63            |

\* (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 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 SYSTEMS

### SECTION H: DEVICE ID INDEX

| <b>Device Index For Section H</b> |                           |                |               |
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| <b>Device ID</b>                  | <b>Section H Page No.</b> | <b>Process</b> | <b>System</b> |
| C4                                | 1                         | 1              | 0             |
| C6                                | 1                         | 1              | 0             |
| D76                               | 6                         | 10             | 1             |
| D77                               | 6                         | 10             | 1             |
| D78                               | 6                         | 10             | 1             |
| D79                               | 9                         | 10             | 1             |
| D80                               | 9                         | 10             | 1             |
| D81                               | 9                         | 10             | 1             |
| D82                               | 10                        | 10             | 1             |
| D94                               | 13                        | 10             | 2             |
| D96                               | 11                        | 10             | 2             |
| D97                               | 11                        | 10             | 2             |
| D113                              | 11                        | 10             | 2             |
| D154                              | 7                         | 10             | 1             |
| D157                              | 21                        | 11             | 4             |
| C160                              | 1                         | 1              | 0             |
| C161                              | 1                         | 1              | 0             |
| D182                              | 19                        | 11             | 2             |
| D183                              | 19                        | 11             | 2             |
| D189                              | 19                        | 11             | 2             |
| D191                              | 19                        | 11             | 2             |
| C232                              | 2                         | 1              | 0             |
| C233                              | 2                         | 1              | 0             |
| D274                              | 7                         | 10             | 1             |
| D276                              | 9                         | 10             | 1             |
| D277                              | 9                         | 10             | 1             |
| D278                              | 10                        | 10             | 1             |
| D279                              | 10                        | 10             | 1             |
| D299                              | 7                         | 10             | 1             |
| D300                              | 7                         | 10             | 1             |
| D301                              | 14                        | 11             | 1             |
| C305                              | 3                         | 1              | 0             |
| D306                              | 11                        | 10             | 2             |
| D333                              | 8                         | 10             | 1             |

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

### SECTION H: DEVICE ID INDEX

| <b>Device Index For Section H</b> |                           |                |               |
|-----------------------------------|---------------------------|----------------|---------------|
| <b>Device ID</b>                  | <b>Section H Page No.</b> | <b>Process</b> | <b>System</b> |
| D335                              | 8                         | 10             | 1             |
| D337                              | 8                         | 10             | 1             |
| D346                              | 14                        | 11             | 1             |
| D347                              | 15                        | 11             | 1             |
| D348                              | 16                        | 11             | 1             |
| D349                              | 15                        | 11             | 1             |
| D350                              | 16                        | 11             | 1             |
| D352                              | 16                        | 11             | 1             |
| D353                              | 16                        | 11             | 1             |
| D354                              | 16                        | 11             | 1             |
| D355                              | 16                        | 11             | 1             |
| D357                              | 21                        | 11             | 4             |
| D358                              | 21                        | 11             | 4             |
| D359                              | 21                        | 11             | 4             |
| D361                              | 21                        | 11             | 4             |
| C364                              | 2                         | 1              | 0             |
| D374                              | 17                        | 11             | 2             |
| D375                              | 17                        | 11             | 2             |
| D378                              | 17                        | 11             | 2             |
| D382                              | 17                        | 11             | 2             |
| D383                              | 17                        | 11             | 2             |
| D386                              | 17                        | 11             | 2             |
| D388                              | 18                        | 11             | 2             |
| D390                              | 18                        | 11             | 2             |
| D391                              | 18                        | 11             | 2             |
| D397                              | 15                        | 11             | 1             |
| D398                              | 15                        | 11             | 1             |
| D403                              | 18                        | 11             | 2             |
| D404                              | 18                        | 11             | 2             |
| D406                              | 18                        | 11             | 2             |
| D407                              | 19                        | 11             | 2             |
| D411                              | 3                         | 9              | 1             |
| D412                              | 3                         | 9              | 1             |
| D413                              | 4                         | 9              | 1             |

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

### SECTION H: DEVICE ID INDEX

| <b>Device Index For Section H</b> |                           |                |               |
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| <b>Device ID</b>                  | <b>Section H Page No.</b> | <b>Process</b> | <b>System</b> |
| D414                              | 4                         | 9              | 1             |
| D425                              | 13                        | 10             | 2             |
| D426                              | 13                        | 10             | 2             |
| D428                              | 4                         | 9              | 2             |
| D429                              | 4                         | 9              | 2             |
| D430                              | 4                         | 9              | 2             |
| D431                              | 4                         | 9              | 2             |
| D432                              | 5                         | 9              | 2             |
| D433                              | 5                         | 9              | 2             |
| D434                              | 5                         | 9              | 2             |
| D435                              | 5                         | 9              | 2             |
| D438                              | 3                         | 9              | 1             |
| D450                              | 18                        | 11             | 2             |
| C460                              | 2                         | 1              | 0             |
| D462                              | 13                        | 10             | 2             |
| D474                              | 13                        | 10             | 4             |
| D476                              | 14                        | 10             | 4             |
| D477                              | 15                        | 11             | 1             |
| D481                              | 15                        | 11             | 1             |
| D482                              | 21                        | 11             | 4             |
| D484                              | 10                        | 10             | 1             |
| D498                              | 14                        | 10             | 4             |
| D501                              | 5                         | 9              | 2             |
| D502                              | 5                         | 9              | 2             |
| D503                              | 6                         | 9              | 2             |
| D507                              | 18                        | 11             | 2             |
| D508                              | 19                        | 11             | 2             |
| D509                              | 19                        | 11             | 2             |
| D510                              | 11                        | 10             | 2             |
| D511                              | 11                        | 10             | 2             |
| D512                              | 12                        | 10             | 2             |
| D513                              | 12                        | 10             | 2             |
| D514                              | 12                        | 10             | 2             |
| D516                              | 12                        | 10             | 2             |

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

### SECTION H: DEVICE ID INDEX

| <b>Device Index For Section H</b> |                           |                |               |
|-----------------------------------|---------------------------|----------------|---------------|
| <b>Device ID</b>                  | <b>Section H Page No.</b> | <b>Process</b> | <b>System</b> |
| D517                              | 12                        | 10             | 2             |
| D520                              | 8                         | 10             | 1             |
| D521                              | 9                         | 10             | 1             |
| D522                              | 12                        | 10             | 2             |
| D523                              | 12                        | 10             | 2             |
| D524                              | 13                        | 10             | 2             |
| D528                              | 19                        | 11             | 2             |
| D537                              | 11                        | 10             | 1             |
| D540                              | 20                        | 11             | 2             |
| D540                              | 22                        | 13             | 2             |
| D545                              | 22                        | 14             | 1             |
| D546                              | 22                        | 14             | 1             |
| D552                              | 20                        | 11             | 2             |
| D571                              | 10                        | 10             | 1             |
| D572                              | 10                        | 10             | 1             |
| D573                              | 10                        | 10             | 1             |
| D584                              | 20                        | 11             | 2             |
| D585                              | 20                        | 11             | 2             |
| D587                              | 17                        | 11             | 1             |
| D588                              | 17                        | 11             | 1             |
| D589                              | 17                        | 11             | 1             |
| D595                              | 6                         | 9              | 2             |
| D596                              | 20                        | 11             | 2             |
| D597                              | 4                         | 9              | 1             |
| E611                              | 13                        | 10             | 2             |
| D612                              | 3                         | 4              | 0             |

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN 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                                |
|-------------|--|
| VOC         | Less than or equal to 833 LBS IN ANY ONE MONTH |

To ensure compliance with the monthly Volatile Organic Compound(VOC) emission limit(s) of this condition, the operator shall comply with the following recordkeeping requirements:

- (1) The operator shall comply with Rule 109 (Recordkeeping for Volatile Organic Compound Emissions).
- (2) Within 14 calendar days after the end of each month, the operator shall total and record VOC emissions for the month from all equipment and operations covered by the monthly emission limit(s). 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.
- (3) The operator shall maintain a single list which includes only the name and address of each person from whom the facility acquired VOC-containing material regulated by the District that was used or stored at the facility during the preceding 12 months.
- (4) The operator shall retain all purchase invoices for all VOC-containing material used or stored at the facility, and all waste manifests for all waste VOC-containing material removed from the facility, for five years.

For the purpose of this condition, the VOC emission limit shall be from all equipment and operations that are subject to Rule 442.

**[RULE 442, 12-15-2000]**

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

F2.2 The operator shall limit emissions from this facility as follows:

| CONTAMINANT | EMISSIONS LIMIT                               |
|-------------|---|
| VOC         | Less than or equal to 22 LBS IN ANY ONE MONTH |

To ensure compliance with the monthly Volatile Organic Compound(VOC) emission limit(s) of this condition, the operator shall comply with the following recordkeeping requirements:

- (1) The operator shall comply with Rule 109 (Recordkeeping for Volatile Organic Compound Emissions).
- (2) Within 14 calendar days after the end of each month, the operator shall total and record VOC emissions for the month from all equipment and operations covered by the monthly emission limit(s). 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.
- (3) The operator shall maintain a single list which includes only the name and address of each person from whom the facility acquired VOC-containing material regulated by the District that was used or stored at the facility during the preceding 12 months.
- (4) The operator shall retain all purchase invoices for all VOC-containing material used or stored at the facility, and all waste manifests for all waste VOC-containing material removed from the facility, for five years.

For the purpose of this condition, the VOC emission limit shall be from all vapor degreasers operating under the Rule 1122 exemption pursuant to Rule 1122(k) (2).

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

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

F2.3 The operator shall limit emissions from this facility as follows:

| CONTAMINANT  | EMISSIONS LIMIT                          |
|--|--|
| Single Volatile Hazardous Air Pollutant (VHAP)           | Less than 10 TONS IN ANY 12-MONTH PERIOD |
| Combination of Volatile Hazardous Air Pollutants (VHAPs) | Less than 25 TONS IN ANY 12-MONTH PERIOD |

To ensure compliance with the 12-month Volatile Hazardous Air Pollutant (VHAP) emission limit(s) of this condition, the operator shall comply with the following recordkeeping requirements:

- (1) The operator shall comply with Rule 109 (Recordkeeping for Volatile Organic Compound Emissions).
- (2) Within 14 calendar days after the end of each month, the operator shall total and record VHAP emissions for the month and for the previous 12 month period from all equipment and operations covered by the 12-month emission limit(s). 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.
- (3) The operator shall 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.
- (4) The operator shall 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, for five years.

**[40CFR 63 Subpart BBBBB, 5-22-2003]**

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN 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 use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

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

F14.2 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

This condition shall become effective on or after June 1, 2004.

[RULE 431.2, 9-15-2000]

F52.1 This facility is subject to the applicable requirements of the following rules or regulation(s):

District Rule 1420

[RULE 1420, 9-11-1992]

#### PROCESS CONDITIONS

P13.1 All devices under this process are subject to the applicable requirements of the following rules or regulations:

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

| Contaminant | Rule          | Rule/Subpart |
|-------------|---------------|--------------|
| VOC         | District Rule | 1164         |
| VOC         | District Rule | 109          |

**[RULE 109, 5-2-2003; RULE 1164, 1-13-1995]**

[Processes subject to this condition : 8, 9, 10, 11, 12, 13]

P13.2 All devices under this process are subject to the applicable requirements of the following rules or regulations:

| Contaminant | Rule          | Rule/Subpart |
|-------------|---------------|--------------|
| VOC         | District Rule | 1122         |
| VOC         | District Rule | 109          |

**[RULE 109, 5-2-2003; RULE 1122, 10-1-2004]**

[Processes subject to this condition : 4]

#### SYSTEM CONDITIONS

S13.1 All devices under this system are subject to the applicable requirements of the following rules or regulations:

| Contaminant | Rule          | Rule/Subpart |
|-------------|---------------|--------------|
| HAPs        | District Rule | 1426         |

[RULE 1426, 5-2-2003]

[Systems subject to this condition : Process 14, System 2]

#### DEVICE CONDITIONS

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

#### A. Emission Limits

- A72.1 The operator shall maintain this equipment to achieve a minimum destruction efficiency of 95 percent for ROG during the normal operation of the equipment it vents.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition : C305, C364, C460]

- A72.3 The operator shall maintain this equipment to achieve a minimum overall control efficiency of 90 percent for ROG during the normal operation of the equipment it vents.

[RULE 1164, 1-13-1995]

[Devices subject to this condition : C305]

#### B. Material/Fuel Type Limits

- B27.4 The operator shall not use materials containing any carcinogenic compounds identified in the SCAQMD Rule 1401, as amended 07-dec-1990.

For the purposes of this condition, carcinogenic compounds are those in Table I of the above mentioned rule, with an effective date of 07-dec-1990 or earlier.

[RULE 1401, 12-7-1990]

[Devices subject to this condition : D333, D335]

- B27.5 The operator shall not use materials containing any toxic air contaminants (TACs) identified in the SCAQMD Rule 1401, as amended 12-mar-1999.

For the purposes of this condition, toxic air contaminants (TACs) are those in Table I of the above mentioned rule, with an effective date of 12-mar-1999 or earlier.

[RULE 1401, 3-12-1999]

[Devices subject to this condition : D337]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

B27.7 The operator shall not use materials containing any toxic air contaminants (TACs) identified in the SCAQMD Rule 1401, as amended 05-02-2003.

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D528]

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

Materials containing VOC.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Devices subject to this condition : D300, D348, D477, D520, D521, D523, D524, D537, D545, D546]

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

Toxic Air contaminants in table 1 of rule 1401 with a listing date of 8/13/99 or earlier except nitric acid and hydrofluoric acid

[RULE 1401, 8-13-1999]

[Devices subject to this condition : D350, D352, D353, D354, D355]

B59.8 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 3/17/00 or earlier except ammonia

[RULE 1401, 3-17-2000]

[Devices subject to this condition : D374, D375, D378, D382, D383, D386, D388, D390, D391]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

B59.9 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 3/17/00 or earlier except hydrochloric acid

[RULE 1401, 3-17-2000]

[Devices subject to this condition : D397, D398]

B59.12 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 8/13/99 or earlier

[RULE 1401, 8-13-1999]

[Devices subject to this condition : D425, D434, D435]

B59.13 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of Rule 1401 with a listing date of 8/18/00 or earlier

[RULE 1401, 8-18-2000]

[Devices subject to this condition : D450]

B59.14 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of May 2, 2003 or earlier except methanol, isopropyl alcohol, and chlorobenzene

[RULE 1401, 8-18-2000]

[Devices subject to this condition : D411, D412, D413, D414]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

B59.16 The operator shall not use the following material(s) in this device :

Materials containing any carcinogenic air contaminants identified in Rule 1401, Table 1 with an effective date of December 7, 1990 or earlier.

[RULE 1401, 12-7-1990]

[Devices subject to this condition : D157]

B59.19 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table one of rule 1401 with a listing date of 8/13/99 or earlier except isopropyl alcohol, phenol, methanol and naphthalene

[RULE 1401, 8-13-1999]

[Devices subject to this condition : D357, D359]

B59.20 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 3/04/05 or earlier except hydrochloric acid, hexavalent chrome, hydrofluoric acid, nickel sulfamate, nitric acid, and phosphoric acid.

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D438]

B59.21 The operator shall not use the following material(s) in this device :

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

methylene chloride

1,1,1 trichloroethane

chloroform

perchloroethylene

trichloroethylene

carbon tetrachloride

HCFC-141b

The purpose of this condition is to ensure that this equipment is not subject to the degreaser NESHAP 40CFR63 SUBPART T requirements.

**[40CFR 63 Subpart T, 12-8-2000]**

[Devices subject to this condition : D612]

B59.34 The operator shall not use the following material(s) in this device :

Materials containing any toxic air contaminants identified in the Rule 1401, Table 1, with a date of listing of 5/02/03 or earlier except chlorobenzene, isopropyl alcohol, and methanol.

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D498]

B59.36 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 5/02/03 or earlier except hydrochloric acid and hydrofluoric acid

[RULE 1401, 5-2-2003]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

[Devices subject to this condition : D477]

B59.38 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 5/02/03 or earlier except chlorine

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D428, D429, D430, D431, D432, D433, D501, D502, D503]

B59.40 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 5/02/03 or earlier except chlorine, hydrochloric acid, phosphoric acid, hydrofluoric acid, ammonia and isopropyl alcohol

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D510, D511, D512, D513, D514, D516, D517]

B59.43 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 5/02/03 or earlier

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D520, D521, D523, D524]

B59.44 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 5/02/03 or earlier except chlorine, arsenic, and isopropyl alcohol

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D522]

B59.47 The operator shall not use the following material(s) in this device :

Materials containing any toxic air contaminants identified in the Rule 1401, Table 1, with a date of listing of of 5/02/03 or earlier except isopropyl alcohol, methanol, phenol and naphtalene.

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D358, D361, D474, D476, D482]

B59.49 The operator shall not use the following material(s) in this device :

Materials containing any toxic air contaminants identified in the Rule 1401, Table 1, with a date of listing of of 5/02/03 or earlier except cresol, isopropyl alcohol, methanol, xylene, phenol and chlorobenzene.l

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D481]

B59.50 The operator shall not use the following material(s) in this device :

Materials containing any toxic air contaminants identified in the Rule 1401, Table 1, with a date of listing of of 5/02/03 or earlier except nitric acid, hydrofluoric acid, cresol, xylene, isopropyl alcohol, methanol, and chlorobenzene.

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D346, D347]

B59.52 The operator shall not use the following material(s) in this device :

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

Toxic air contaminants in table 1 of rule 1401 with a listing date of 5/02/03 or earlier except hydrofluoric acid, hydrochloric acid, ammonia, chlorine or isopropyl alcohol

[RULE 1401, 5-2-2003]

[Devices subject to this condition : D349, D403, D404, D406, D407, D507, D508, D509, D552]

B59.53 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of Rule 1401 with a listing date of 3/04/05 or earlier except xylene, cresol, isopropyl alcohol and ammonia

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D571, D572, D573]

B59.55 The operator shall not use the following material(s) in this device :

Toxic air contaminants in Table 1 of Rule 1401 with a listing date of 3/04/05 or earlier

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D537, D540, D595]

B59.57 The operator shall not use the following material(s) in this device :

Toxic Air contaminants in table 1 of rule 1401 with a listing date of 3/04/05 or earlier except nitric acid, hydrofluoric acid and ammonia

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D348]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

B59.58 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of Rule 1401 with a listing date of 3/4/05 or earlier except hydrofluoric acid or chlorine

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D584]

B59.59 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 3/04/05 or earlier except ammonia

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D585]

B59.60 The operator shall not use the following material(s) in this device :

Toxic Air Contaminants in Table 1 of Rule 1401 with a listing date of 3/04/05 or earlier except xylene, cresol, chlorobenzene and formaldehyde

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D484]

B59.62 The operator shall not use the following material(s) in this device :

Toxic air contaminants in Table 1 of Rule 1401 with a listing date of 3/04/05 or earlier except xylene, cresol, and cellosolve acetate

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D587, D588, D589]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

B59.63 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 3/04/05 or earlier except nitric acid and hydrofluoric acid.

[RULE 1401, 3-4-2005]

[Devices subject to this condition : D546]

B59.65 The operator shall not use the following material(s) in this device :

Toxic air contaminants (TACs) in table 1 of Rule 1401 with a listing date of 3/07/08 or earlier except ammonia.

Materials containing Volatile Organic Compounds (VOCs)

[**RULE 1164, 1-13-1995; RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 3-7-2008]

[Devices subject to this condition : D597]

B59.66 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 3/07/08 or earlier.

[RULE 1401, 3-7-2008]

[Devices subject to this condition : D596]

B59.69 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 9/10/10 or earlier except nitric acid and hydrofluoric acid.

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

[RULE 1401, 9-10-2010]

[Devices subject to this condition : D545]

B59.70 The operator shall not use the following material(s) in this device :

Toxic air contaminants in table 1 of rule 1401 with a listing date of 9/10/10 or earlier.

[RULE 1401, 9-10-2010]

[Devices subject to this condition : E611, D612]

B59.71 The operator shall EXACT CHAR use the following material(s) EXACT CHAR :  
CONDITION PARAMETER NOT SET UP

Toxic air contaminants in table 1 of rule 1401 with a listing date of 9/10/10 or earlier except chlorine.

[RULE 1401, 9-10-2010]

[Devices subject to this condition : D613]

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

C1.6 The operator shall limit the material processed to no more than 3600 in any one month.

For the purpose of this condition, material processed shall be defined as the total number of wafers processed.

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

[Devices subject to this condition : D306]

C1.15 The operator shall limit the material processed to no more than 180 gallon(s) in any one calendar month.

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

For the purpose of this condition, material processed shall be defined as photoresist coatings and solvents containing VOC.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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

[Devices subject to this condition : D333]

- C1.17 The operator shall limit the material processed to no more than 93 gallon(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as photoresist coatings and solvents containing VOC.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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

[Devices subject to this condition : D335]

- C1.18 The operator shall limit the material processed to no more than 430 lb(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as photoresist coatings and solvents containing VOC.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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

[Devices subject to this condition : D337]

- C1.24 The operator shall limit the material processed to no more than 42 gallon(s) per month.

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

This limit shall be based on the total combined limit for equipment D411 - D414.

For the purpose of this condition, material processed shall be defined as material with a VOC content of 9.2 lbs/gal or less.

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

[Devices subject to this condition : D411, D412, D413, D414]

- C1.36 The operator shall limit the material processed to no more than 0.50 gallon(s) per month.

For the purpose of this condition, material processed shall be defined as isopropyl alcohol.

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

[Devices subject to this condition : D522]

- C1.37 The operator shall limit the material processed to no more than 80 lb(s) in any one month.

For the purpose of this condition, material processed shall be defined as photoresist coatings (Microposit 1822 / 1813).

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1401, 5-2-2003]**

[Devices subject to this condition : D481]

- C1.41 The operator shall limit the material processed to no more than 1836 gallon(s) per month.

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

For the purpose of this condition, material processed shall be defined as materials containing VOC.

This limit shall be based on the total combined limit for equipment D357, D358, D359, D361 and D482.

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

[Devices subject to this condition : D357, D358, D359, D361, D482]

C1.42 The operator shall limit the material processed to no more than 649 gallon(s) per month.

For the purpose of this condition, material processed shall be defined as materials containing VOC.

This limit shall be based on the total combined limit for equipment D346 through D348, D350, D352 through D355, D481, D587 through D589..

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

[Devices subject to this condition : D346, D347, D348, D350, D352, D353, D354, D355, D481, D587, D588, D589]

C1.44 The operator shall limit the material processed to no more than 660 gallon(s) per month.

For the purpose of this condition, material processed shall be defined as materials containing VOC.

This limit shall be based on the total combined limit for equipment D474 and D476.

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

[Devices subject to this condition : D474, D476]

C1.46 The operator shall limit the material processed to no more than 2.0 gallon(s) in any one calendar month.

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

For the purpose of this condition, material processed shall be defined as material containing VOC. The limit shall be based on the total combined limit for equipment D349 and D552.

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

[Devices subject to this condition : D349, D552]

- C1.47 The operator shall limit the material processed to no more than 325 gallon(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as solvents containing VOC.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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

[Devices subject to this condition : D498]

- C1.51 The operator shall limit the material processed to no more than 282 gallon(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as material containing VOC.

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

[Devices subject to this condition : D571, D572]

- C1.53 The operator shall limit the material processed to no more than 2 gallon(s) in any one calendar month.

For the purpose of this condition, material processed shall be defined as material containing VOC.

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

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

[Devices subject to this condition : D484]

C1.55 The operator shall limit the material processed to no more than 240 in any one month.

For the purpose of this condition, material processed shall be defined as number of wafers processed in this equipment..

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

[Devices subject to this condition : D596]

C1.56 The operator shall limit the throughput to no more than 480 batch(es) in any one month.

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

[Devices subject to this condition : D597]

C8.1 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 100 gpm.

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

[**RULE 1303(a)(1)-BACT, 5-10-1996**]

[Devices subject to this condition : C232]

C8.2 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 60 gpm.

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

[**RULE 1303(a)(1)-BACT, 5-10-1996**]

[Devices subject to this condition : C4]

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN 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 flow rate being monitored, as indicated below, is not less than 150 gpm.

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

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

[Devices subject to this condition : C6, C160, C233]

C8.5 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 125 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.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition : C161]

C8.9 The operator shall use this equipment in such a manner that the pH being monitored, as indicated below, is not less than 8 of the pH scale.

To comply with this condition, the operator shall monitor and record the pH as specified in condition number 90-1.

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

[Devices subject to this condition : C4, C6, C160, C161, C232, C233]

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

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

| Pollutant(s) to be tested | Required Test Method(s) | Averaging Time | Test Location |
|---------------------------|-------------------------|----------------|---------------|
|                           |                         |                |               |

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

|     |  |                          |  |                                  |  |                               |
|-----|--|--------------------------|--|----------------------------------|--|-------------------------------|
| VOC |  | Approved District method |  | District-approved averaging time |  | Simultaneous inlet and outlet |
|-----|--|--------------------------|--|----------------------------------|--|-------------------------------|

The test shall be conducted at least once during the life of the permit but no later than July 9, 2010 unless otherwise approved in writing by the District.

The test shall be conducted to determine the VOC emissions using an approved District method to determine compliance with all applicable permit condition(s), Rules and Regulations.

The test shall be conducted while the oxidizer is operating at a temperature of not less than the minimum operating temperature specified in this permit. If the operating temperature during the source test is greater than the minimum operating temperature specified in the permit, the minimum operating temperature specified in this permit may be increased to reflect the operating temperature during the source test.

The operator shall comply with administrative conditions NOs. 8, 9, and 10 of Section E of this facility permit

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : C305, C364, C460]

D90.1 The operator shall periodically monitor the pH of the scrubbing solution according to the following specifications:

The operator shall use litmus paper or a portable pH analyzer to monitor the parameter.

The operator shall monitor once every day provided any equipment served by this control system is in operation.

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : C4, C6, C160, C161, C232, C233]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

D322.2 The operator shall perform a monthly inspection of the cover to assure compliance with Rule 1122(c)(2)(A).

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D612]

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

E54.1 The operator is not required to vent this equipment to the following equipment if any of the requirements listed below are met:

Device ID: C460 [OXIDIZER, RTO, 1.5 MMBTU/HR]

Requirement number 1: On days where the total VOC emissions from semiconductor manufacturing and related operations subject to District Rule 1164 at this facility are less than 5 pounds.

**[RULE 1164, 1-13-1995]**

[Devices subject to this condition : D157]

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]**

[Devices subject to this condition : C4, C6, C160, C161, C232, C233]

E159.1 The operator shall maintain inspection ports which, when opened, allow the observation of the spray nozzles and the scrubbing solution being sprayed on the packing.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition : C4, C6, C160, C161, C232]

E193.1 The operator shall operate and maintain this equipment according to the following requirements:

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

The combustion chamber temperature shall be maintained at a minimum of 1,500 degrees Fahrenheit whenever the equipment it serves is in operation

The operator shall operate and maintain a temperature measuring and recording system to continuously measure and record the combustion chamber temperature pursuant to the operation and maintenance requirements specified in 40 CFR Part 64.7. Such a system shall have an accuracy of within 1% of the temperature being monitored and shall be inspected, maintained, and calibrated on an annual basis in accordance with the manufacturer's specifications

For the purpose of this condition, a deviation shall be defined as when a combustion chamber temperature of less than 1,500 degrees Fahrenheit occurs whenever the equipment it serves is in operation. The operator shall review the records of the combustion chamber temperature on a daily basis to determine if a deviation occurs or shall install an alarm system to alert the operator when a deviation occurs

Whenever a deviation occurs, the operator shall inspect this equipment to identify the cause of such a deviation, take immediate corrective action to maintain the combustion chamber temperature at or above 1,500 degrees Fahrenheit, and keep records of the duration and cause (including unknown cause, if applicable) of the deviation and the corrective action taken

All deviations shall be reported to the AQMD pursuant to the requirements specified in 40 CFR Part 64.9 and Condition Nos. 22 and 23 in Section K of this permit. The report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period specified in Condition No. 23 in Section K of this permit

The operator shall submit an application with a Quality Improvement Plan (QIP) in accordance with 40 CFR Part 64.8 to the AQMD if an accumulation of deviations exceeds 5 percent duration of this equipment's total operating time for any semi-annual reporting period specified in Condition No. 23 in Section K of this permit. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

The operator shall inspect and maintain all components of this equipment on an annual basis in accordance with the manufacturer's specifications

The operator shall keep adequate records in a format that is acceptable to the AQMD to demonstrate compliance with all applicable requirements specified in this condition and 40 CFR Part 64.9 for a minimum of five years

**[RULE 1303(a)(1)-BACT, 5-10-1996; 40CFR Part 64, 10-22-1997]**

[Devices subject to this condition : C305, C364, C460]

#### **H. Applicable Rules**

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

| Contaminant | Rule          | Rule/Subpart |
|-------------|---------------|--------------|
| VOC         | District Rule | 109          |

**[RULE 109, 5-2-2003]**

[Devices subject to this condition : D337]

H23.7 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 : D612]

## **FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS**

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

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

H339.1 The operator shall determine compliance with Rule 1122(e)(1)(B) requirements by measuring the temperature at the center of the air blanket once a month if the freeboard refrigeration device is used, or measuring the temperature at the center of the superheated solvent vapor zone once a month if superheated vapor system is used. In addition to the recordkeeping requirements in Section K of this Facility Permit, the operator shall keep records of the corrective actions taken when the monitoring demonstrates non-compliance.

**[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition : D612]

#### **I. Administrative**

I331.1 The conditions and requirements for this device in Section H shall take effect, and shall supersede those in Section D, when the modifications authorized in Section H are completed. The operator shall notify the AQMD when the modifications are completed.

**[RULE 202, 5-7-1976]**

[Devices subject to this condition : C160, C161, C232]

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

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 30 days after the source test was conducted.

**[RULE 1164, 1-13-1995; RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition : C305, C364, C460]

K48.4 The operator shall maintain records in a manner approved by the District, to demonstrate compliance with the following condition number(s):

## FACILITY PERMIT TO OPERATE NORTHROP GRUMMAN SYSTEMS

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

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

Condition Number C 1- 6

[**RULE 109, 5-2-2003**]

[Devices subject to this condition : D306]

- K48.5 The operator shall maintain records in a manner approved by the District, to demonstrate compliance with the following condition number(s):

Condition Number E 54- 1

[**RULE 109, 5-2-2003**]

[Devices subject to this condition : D157]

- K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

pH of scrubbing solution on a daily basis

flow rate of recirculating scrubbing solution on a daily basis

[**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 : C4, C6, C160, C161, C232, C233]

#### **L. Expiration Date**

- L341.1 Within 7 days after start-up of this equipment, the following device(s) shall be removed from operation:

D38

[Devices subject to this condition : D545]