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DEPT. OF ENVIRONMENTAL QUALITY



March 15, 2018

Oregon Department of Environmental Quality  
AQ Permit Coordinator  
700 NE Multnomah Street, Ste 600  
Portland, Oregon 97232

**Re: Intel Corporation, Aloha and Ronler Acres Campuses, ACDP 34-2681-ST-01  
Calendar Year 2017 Annual Report**

In accordance with the requirements set forth in Oregon Department of Environmental Quality (ODEQ) Permit ACDP 34-2681-ST-01 Condition 77.b., Intel Corporation (Intel) is submitting three (3) copies of this annual report. It should be noted that there were no instances of deviations from permit requirements within the air permit #34-2681-ST-01 to be included in this report for 2017. This annual report is being submitted in a timely manner on or before March 15, 2018 and includes the following:

- 77.b.ii.: The emission fee report
- 77.b.iii.: A summary of the Excess Emissions and Upset log
- 77.b.iv.: The annual certification that the risk management plan is being properly implemented
- 77.b.v.: The type and amount of fuel combusted
- 77.b.vi.: The calculated 12-month rolling emission rates for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, CO, NO<sub>x</sub>, VOC, Fluorides, combined HAPs and individual HAPs

NOTES:

- Reporting for individual HAPs is only required for pollutants with emission rates of 0.1 or more tons/yr.
  - The GHG emissions report will be submitted on March 31 as per OAR 340, Division 215.
- 77.b/vii.: Revisions of the pollutant capture efficiency function used for compliance emission calculations in condition 60.
  - 77.b.viii.: A summary of the physical changes, additions and/or process modifications as well as the pollution prevention project(s) performed to offset emission increases associated with these changes/modifications, pre-approved pursuant to Condition 16. In addition, the permittee must identify and summarize any change(s) with the associated emission increase of five (5) or more tons of VOC or one (1) or more tons of any HAP on a yearly basis.
  - 77.b.ix.: Summary of complaints relating to air quality received by permittee during the year.
  - 77.b.x.: List major maintenance performed on pollution control equipment.
  - 77.b.xi.: There are no applicable Subpart Dc specific reporting requirements for affected facilities that are exclusively natural gas fired.

Intel Corporation  
2501 NE Century Blvd  
Hillsboro, OR 97124  
www.intel.com

**77.b.ii.: Emissions fee report:**

Attachment A to this annual report includes Form F1101 as the emission fee report.

**77.b.iii.: Summary of the Excess Emissions and Upset log:**

There were no excess emissions or upset events in calendar year 2017 to include in the log.

**77.b.iv.: Annual certification that the risk management plan (RMP) is being properly implemented:**

The Ronler Acres campus has an RMP that was last updated in March of 2017. The RMP is current and is implemented as required. The Aloha campus does not store regulated substances in quantities which exceed the RMP applicability threshold quantities, and therefore does not have an RMP.

**77.b.v.: The type and amount of fuel combusted:**

The Ronler Acres and Aloha campuses only combust natural gas and diesel fuel. The diesel fuel is fired within the emergency generators and fire pumps, while natural gas is fired in boilers, RCTOs, heaters, and Point of Use (POU) abatement devices. The quantity of these fuels combusted in 2017 are summarized below for Ronler Acres and Aloha combined.

- Diesel Fuel Combusted
  - Aloha: 1,658 gallons/yr
  - Ronler Acres: 36,405 gallons/yr
  - Total: 38,063 gallons/yr
- Natural Gas Combusted
  - Aloha: 164 MMscf/yr
  - Ronler Acres: 1,157 MMscf/yr
  - Total: 1,321 MMscf/yr

**77.b.vi.: Calculated 12-month rolling emissions:**

Attachment B to this annual report includes the calculated 12-month rolling emission rates for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, CO, NO<sub>x</sub>, VOC, Fluorides, combined HAPs, and individual HAPs with annual emissions of 0.1 or more tons/yr.

**77.b.vii.: Revisions of the pollutant capture efficiency:**

Compliance testing of D1X Anguil (RCTO) units performed on November 11<sup>th</sup>, 2017 resulted in an update to the D1X Anguil removal efficiency (RE) to 99.88%. However, site compliance calculations of process VOC emissions from the D1X Fab will continue to utilize the more conservative RE of 99.83%, established by D1X Munters compliance testing in July of 2014.

**77.b.viii.: Summary of physical changes:**

Below is a summary of the physical changes, additions and/or process modifications.

- In April of 2017, a Type 1 Notice of Intent to Construct application was submitted for three (3) wet electrostatic precipitators (WESPs) to be installed on the oxidizer outlet of D1X RCTO #1-3 and five (5) WESPs to be installed on the scrubber outlets of D1X EXSC 1-5. Subsequently, an approval letter was issued (NC 029045). WESP installation at D1X RCTO #1-3 was completed and

became operational in January, 2018. The WESP installation on D1X Scrubber #4, as of the date of this letter, is currently in progress and is expected to be operational later in 2018.

- In June of 2017, a Type 1 Notice of Intent to Construct application was submitted to update the specifications for eight (8) previously permitted emergency generators, as well as the installation of one (1) additional emergency generator, all with Diesel Particulate Filters (DPFs). An approval letter was issued thereafter (NC 029142).
- In April of 2016, a Type 1 Notice of Intent to Construct application was submitted for the following projects:
  - RP1 Boiler replacement and RP1 & RA2 Burner Improvements
  - D1B Emergency Generator Replacements including diesel particulate matter filters
  - Aloha F15 Fitness Center Hot Water Heater replacement

This application was approved in May of 2016 and construction has commenced on all of the projects. The Aloha F15 Fitness Center hot water heater and D1B Emergency Generator replacement projects were completed in CY2016. The RP1 Boiler replacement was completed, and placed in operation in December, 2016. The RA2 and RP1 boiler upgrade project was completed in Q2, 2017. The Notice of Approved Construction Completion Forms we submitted to DEQ in December, 2017.

**77.b.ix.: Summary of complaints:**

Four complaints were received during calendar year 2017 near the Ronler Acres facility. All complaints were investigated by Intel by reviewing manufacturing and pollution abatement equipment operations. All investigations determined that manufacturing operations were normal and all pollution abatement equipment was operational and within specifications. A detailed tracking log is maintained onsite and available for inspection upon request.

**77.b.x.: List of major maintenance performed on pollution control equipment:**

Attachment C to this annual report includes a list of major maintenance performed on the RCTOs and scrubbers at the Ronler Acres and Aloha campuses. All maintenance records (major and minor) are maintained onsite within the Maximo system and available for inspection upon request.

**77.b.xi.: NSPS Subpart Dc reporting requirements:**

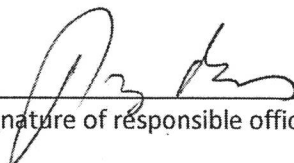
Intel continues to fire natural gas exclusively in all boilers at the Ronler Acres and Aloha campuses. Therefore, there are no applicable Subpart Dc reporting requirements.

**Statement of Certification (as required by Permit Condition 74):**

***Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete. I also certify that all statements made concerning compliance, which are based on monitoring required by the permit but not required to be submitted to DEQ, are true, accurate and complete based on information and belief formed after reasonable inquiry.***

PENG BAI  
Name of designated responsible official

Corporate Vice President  
Title of responsible official

  
Signature of responsible official

3/7/18  
Date

Please contact or me ([rafe.a.christopherson@intel.com](mailto:rafe.a.christopherson@intel.com); 503-329-0649) or Cassandra Sanchez ([cassandra.sanchez@intel.com](mailto:cassandra.sanchez@intel.com); 971-214-2444) if you have any questions.

Sincerely,

  
Rafe Christopherson  
Senior Environmental Engineer

INTEL CORPORATION

cc: Patty Jacobs, ODEQ  
Site Air Correspondence File

# Attachment A:

DEQ Form F1101

**DEQ**State of Oregon  
Department of  
Environmental  
Quality

## Total Emissions by Regulated Pollutant

FORM F1101

1. Reporting year: <b>2017</b>															
2. Facility name: Intel Corporation - Aloha & Ronler Acres	4. Permit number: <b>ACDP 34-2681-ST-01</b>														
3. Aloha Campus, 3585 SW 198th Ave, Aloha, OR 97007 Mailing street address or PO Box Ronler Acres, 2501 NE Century Blvd, Hillsboro, OR 97124 Mailing city, state and ZIP code	5. Rafe Christopherson, Senior Env Engineer Contact name and title <b>(503) 329-0649</b> Phone number with area code														
6. Emissions (in tons) by regulated air pollutant subject to fees for the reporting year: <table><tr><td>PM<sub>10</sub>*</td><td><u>35</u></td></tr><tr><td>or PM</td><td><u>          </u></td></tr><tr><td>or PM<sub>2.5</sub></td><td><u>          </u></td></tr><tr><td>or TSP</td><td><u>          </u></td></tr><tr><td>SO<sub>2</sub></td><td><u>39</u></td></tr><tr><td>NO<sub>x</sub> (as NO<sub>2</sub>)</td><td><u>197</u></td></tr><tr><td>VOC</td><td><u>178</u></td></tr></table> <p>* Report only one particulate category. If permit has a PSEL for PM<sub>10</sub>, report emissions of PM<sub>10</sub>. If permit has a PSEL for particulate matter (PM) and not PM<sub>10</sub>, report emissions of PM. If permit has a PSEL for PM<sub>2.5</sub> and not PM<sub>10</sub> or PM, report emissions of PM<sub>2.5</sub>. If permit has a PSEL for total suspended particulate (TSP) and not PM<sub>10</sub>, PM or PM<sub>2.5</sub>, report emissions of TSP.</p>		PM <sub>10</sub> *	<u>35</u>	or PM	<u>          </u>	or PM <sub>2.5</sub>	<u>          </u>	or TSP	<u>          </u>	SO <sub>2</sub>	<u>39</u>	NO <sub>x</sub> (as NO <sub>2</sub> )	<u>197</u>	VOC	<u>178</u>
PM <sub>10</sub> *	<u>35</u>														
or PM	<u>          </u>														
or PM <sub>2.5</sub>	<u>          </u>														
or TSP	<u>          </u>														
SO <sub>2</sub>	<u>39</u>														
NO <sub>x</sub> (as NO <sub>2</sub> )	<u>197</u>														
VOC	<u>178</u>														
7. Total emissions (in tons) of pollutants subject to fees for the reporting year: <u>449</u>															
8. Statement of certification:  I have reviewed this report and all supporting documentation in their entirety and to the best of my knowledge, information, and belief formed after reasonable inquiry, the statements and information contained herein are true, accurate and complete.  <table><tr><td><u>PENG BAI</u> Name of designated responsible official</td><td><u>Corporate Vice President</u> Title of responsible official</td></tr><tr><td><u>[Signature]</u> Signature of responsible official</td><td><u>3/7/18</u> Date</td></tr></table>		<u>PENG BAI</u> Name of designated responsible official	<u>Corporate Vice President</u> Title of responsible official	<u>[Signature]</u> Signature of responsible official	<u>3/7/18</u> Date										
<u>PENG BAI</u> Name of designated responsible official	<u>Corporate Vice President</u> Title of responsible official														
<u>[Signature]</u> Signature of responsible official	<u>3/7/18</u> Date														

# **Attachment B:**

**Calendar Year 2017 12-Month Rolling Emission Inventory**

Pollutant	Rolling 12-month Total Emissions (Ronler Acres and Aloha Facilities combined)												PSEI tons/year	Units
	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17		
PM	17.8	17.9	18.0	18.4	18.7	19.0	19.6	20.3	21.1	22.0	22.7	24.9	41	
PM10	12.4	12.5	12.7	13.0	13.4	13.7	14.2	15.0	15.8	16.6	17.4	19.6	35	
PM2.5	8.1	8.2	8.3	8.7	9.0	9.4	9.9	10.7	11.5	12.3	13.0	15.3	31	
NOx	33.8	34.7	35.8	36.5	37.1	37.6	38.2	38.3	38.9	39.7	40.1	40.4	197	
CO	46.0	47.0	48.3	49.4	50.3	51.6	52.8	53.8	55.1	56.0	57.0	58.2	229	
SO2	7.2	7.1	6.9	6.8	6.7	6.5	6.3	6.3	6.2	6.1	6.0	5.7	39	
VOC	54.5	55.2	57.0	59.5	61.7	64.1	66.7	68.1	70.8	73.8	76.2	78.6	178	tons per year
Total Fluorides	3.0	3.0	3.0	3.0	3.1	3.1	3.2	3.3	3.4	3.4	3.5	3.6	6.4	
Total HAPs	5.5	5.6	5.7	5.8	5.8	5.8	6.0	6.1	6.4	6.5	6.6	6.7	24	
Individual HAP - HF	3.85	3.85	3.84	3.85	3.89	3.93	4.02	4.11	4.21	4.30	4.39	4.48	9	
Individual HAP - Cl2	0.73	0.78	0.78	0.81	0.81	0.76	0.78	0.81	0.84	0.87	0.89	0.89	9	
Individual HAP - HCN	0.17	0.19	0.22	0.24	0.27	0.30	0.33	0.36	0.40	0.43	0.45	0.49	9	
Individual HAP - Methanol	0.32	0.34	0.32	0.36	0.35	0.33	0.33	0.32	0.36	0.34	0.32	0.32	9	
Individual HAP - HCl	0.33	0.35	0.35	0.36	0.36	0.30	0.30	0.30	0.31	0.31	0.31	0.31	9	

Notes:

\* All individual HAPs with annual emissions above 0.1 tons per year are reported above



# **Attachment C:**

List of Major Maintenance on RCTOs and Scrubbers in  
Calendar Year 2017

VOC Type	Site	Description	Asset	Actual Finish Date
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-1-200	D1C-SC133-1-200	2/11/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-1-200	D1C-SC133-1-200	7/3/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-2-100	D1C-SC133-2-100	6/17/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM D1C-SC133-2-100	D1C-SC133-2-100	11/30/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-3-100	D1C-SC133-3-100	6/12/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-3-100	D1C-SC133-3-100	7/20/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-4-100	D1C-SC133-4-100	3/5/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1C-SC133-4-100	D1C-SC133-4-100	8/30/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-1-111	RB1-SC133-1-111	5/7/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM RB1-SC133-1-111	RB1-SC133-1-111	11/25/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-2-111	RB1-SC133-2-111	1/7/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-2-111	RB1-SC133-2-111	6/28/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM RB1-SC133-2-111	RB1-SC133-2-111	12/29/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM RB1-SC133-4-111	RB1-SC133-4-111	11/19/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-6-111	RB1-SC133-6-111	1/7/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-6-111	RB1-SC133-6-111	7/10/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM RB1-SC133-6-111	RB1-SC133-6-111	12/29/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-7-111	RB1-SC133-7-111	2/27/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-7-111	RB1-SC133-7-111	8/17/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-8-111	RB1-SC133-8-111	3/5/2017
PM	RA-D1C	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RB1-SC133-8-111	RB1-SC133-8-111	8/24/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-1-200	SC-133-1-200	3/26/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-1-100	SC-133-1-100	5/14/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-1-200	SC-133-1-200	7/22/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM SC-133-1-100	SC-133-1-100	11/21/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-2-100	SC-133-2-100	5/24/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM SC-133-2-100	SC-133-2-100	11/22/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-3-100	SC-133-3-100	1/4/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-3-100	SC-133-3-100	6/2/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-4-100	SC-133-4-100	1/16/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-4-100	SC-133-4-100	7/27/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM SC-133-4-100	SC-133-4-100	12/26/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-5-100	SC-133-5-100	2/7/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-5-100	SC-133-5-100	8/8/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-6-100	SC-133-6-100	3/26/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan SC-133-6-100	SC-133-6-100	9/24/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RP1-SC133-1-100	RP1-SC133-1-100	3/18/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RP1-SC133-1-100	RP1-SC133-1-100	7/13/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RP1-SC133-2-100	RP1-SC133-2-100	3/12/2017
PM	RA-D1D	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan RP1-SC133-2-100	RP1-SC133-2-100	11/2/2017
PM	RA-D1X	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1X-SC133-1-00	D1X-SC133-1-00	4/30/2017
PM	RA-D1X	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1X-SC133-2-00	D1X-SC133-2-00	2/26/2017
PM	RA-D1X	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1X-SC133-2-00	D1X-SC133-2-00	12/7/2017
PM	RA-D1X	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1X-SC133-3-00	D1X-SC133-3-00	3/29/2017
PM	RA-D1X	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1X-SC133-3-00	D1X-SC133-3-00	7/26/2017
PM	RA-D1X	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan D1X-SC133-4-00	D1X-SC133-4-00	3/26/2017
PM	RA-F20	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan F20-SC133-1-111	F20-SC133-1-111	5/7/2017
PM	RA-F20	RTPM--Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan	F20-SC133-1-111	6/9/2017
PM	RA-F20	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM F20-SC133-1-111	F20-SC133-1-111	11/21/2017
PM	RA-F20	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan F20-SC133-2-111	F20-SC133-2-111	6/27/2017
PM	RA-F20	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM F20-SC133-2-111	F20-SC133-2-111	12/26/2017
PM	RA-F20	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan F20-SC133-3-111	F20-SC133-3-111	3/19/2017
CM	RA-F20	Evaluate Repair/Replace both D1B scrubber #3 recirc pumps	F20-SC133-3-111	6/15/2017
PM	RA-F20	Ronler Acers Scrubbed Exhaust (EXSC) Scrubber PM Job Plan F20-SC133-3-111	F20-SC133-3-111	8/14/2017
PM	RA-D1C	Ronler Acers VOC Abatement System (EXVO) PM Job Plan D1C-VOC138-1-120 (Annual)	D1C-VOC138-1-120	2/16/2017
PM	RA-D1C	Ronler Acers VOC Abatement System (EXVO) PM D1C-VOC138-1-120 (Semi-Annual)	D1C-VOC138-1-120	7/17/2017
CM	RA-D1C	Repair gas union and seal burner on D1C VOC #1	D1C-VOC138-1-120	7/17/2017
CM	RA-D1C	Replace Rotor 2 AFD	D1C-VOC138-2-120	11/22/2017
CM	RA-D1C	Replace desorb seals	D1C-VOC138-2-120	11/22/2017
PM	RA-D1C	Ronler Acers VOC Abatement System (EXVO) PM D1C-VOC138-2-120 (Semi-Annual)	D1C-VOC138-2-120	12/18/2017
PM	RA-D1C	Ronler Acers VOC Abatement System (EXVO) PM D1C-VOC138-3-120 (Semi-Annual)	D1C-VOC138-3-120	6/28/2017
CM	RA-D1C	Replace Rotor Drive Units and VFD Rotor1 and 2	D1C-VOC138-3-120	7/6/2017
PM	RA-F20	Ronler Acers VOC Abatement System (EXVO) PM D1B-VOC138-1-22 (Semi-Annual PM)	D1B-VOC138-1-22	9/13/2017
PM	RA-F20	Ronler Acers VOC Abatement System (EXVO) PM Job Plan D1B-VOC138-2-22 (Annual PM)	D1B-VOC138-2-22	1/10/2017
PM	RA-F20	Ronler Acers VOC Abatement System (EXVO) PM D1B-VOC138-2-22 (Semi-Annual PM)	D1B-VOC138-2-22	8/26/2017

PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM Job Plan VOC-138-1-120 (Annual)	VOC-138-1-120	1/25/2017
CM	RA-D1D	Repair D1D EXVO Fan #1 inlet isolation damper	VOC-138-1-120	3/31/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM VOC-138-1-120 (Semi-Annual)	VOC-138-1-120	7/25/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM Job Plan VOC-138-2-120 (Annual)	VOC-138-2-120	3/25/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM VOC-138-2-120 (Semi-Annual)	VOC-138-2-120	8/15/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM Job Plan VOC-138-3-120 (Annual)	VOC-138-3-120	3/24/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM VOC-138-3-120 (Annual)	VOC-138-3-120	9/23/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM Job Plan VOC138-4-120 (Semi-Annual)	VOC138-4-120	2/15/2017
CM	RA-D1D	Replace Selsems Oxidizer inlet actuator	VOC138-4-120	3/12/2017
CM	RA-D1D	Replace Combustion Modulating Valve Actuator	VOC138-4-120	3/14/2017
PM	RA-D1D	Ronler Acers VOC Abatement System (EXVO) PM VOC138-4-120 (Annual)	VOC138-4-120	8/10/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM Job Plan D1X-VOC138-1-20 (Annual)	D1X-VOC138-1-20	3/10/2017
CM	RA-D1X	Replace Rotor Seals (Logbook Entry: 554236)	D1X-VOC138-1-20	3/11/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-2-20 (Semi-Annual)	D1X-VOC138-2-20	12/12/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-3-20 (Semi-Annual)	D1X-VOC138-3-20	6/11/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-3-20 (Annual)	D1X-VOC138-3-20	12/13/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-4-20 (Annual)	D1X-VOC138-4-20	5/26/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM Job Plan D1X-VOC138-5-20 (Annual)	D1X-VOC138-5-20	2/21/2017
CM	RA-D1X	Replace Combustion Modulating Damper Actuator (Logbook Entry: 573361)	D1X-VOC138-5-20	4/5/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-5-20 (Semi-Annual)	D1X-VOC138-5-20	7/24/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-6-20 (Annual)	D1X-VOC138-6-20	1/18/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM Job Plan D1X-VOC138-6-20 (Semi-Annual)	D1X-VOC138-6-20	7/24/2017
PM	RA-D1X	Ronler Acers VOC Abatement System (EXVO) PM D1X-VOC138-7-20 (Annual)	D1X-VOC138-7-20	11/17/2017

WO type	Site	description	Asset	Actual finish date
PM	AFO	semi-annual and rotor checks.	F15-AU138-1-10	1/17/2017
CM	AFO	Rotors tightened by Munters	F15-AU138-1-10	2/27/2017
PM	AFO	Auto Rebalance completion	F15-AU138-1-10	5/3/2017
PM	AFO	Rotor 2 limit switch adjustments, seal gaps adjusted.	F15-AU138-1-10	6/13/2017
PM	AFO	annual PM, rotor checks and Rotor 2 Desorb UDC replacement	F15-AU138-1-10	7/24/2017
CM	AFO	Oxidizer hi Temperature UDC100L replaced	F15-AU138-1-10	10/8/2017
CM	AFO	Flame Rod replaced	F15-AU138-2-10	1/18/2017
PM	AFO	Annual PM and rotor checks	F15-AU138-2-10	5/15/2017
PM	AFO	Auto Rebalance completion	F15-AU138-2-10	5/18/2017
CM	AFO	Welded cracks on the oxidizer doors.	F15-AU138-2-10	9/27/2017
PM	AFO	semi-annual and rotor checks.	F15-AU138-2-10	12/21/2017
PM	AFO	annual pH and flow calibrations	F15-SC7-1-1	10/31/2017
CM	AFO	VFD replacement	F15-SC7-1-1	12/13/2017
PM	AFO	annual PM	F15-SC7-1-1	6/10/2017
PM	AFO	annual pH and flow calibrations	F15-SC7-1-2	11/13/2017
PM	AFO	annual PM	F15-SC7-1-2	11/9/2017
PM	AFO	annual pH and flow calibrations	F15-SC7-1-3	10/30/2017
PM	AFO	annual PM	F15-SC7-1-3	6/24/2017
PM	AFO	annual pH and flow calibrations	F15-SC7-1-4	10/31/2017
PM	AFO	annual PM	F15-SC7-1-4	11/27/2017
PM	AFO	annual pH and flow calibrations	F15-SC7-1-5	11/14/2017
PM	AFO	scubber fan motor bearing replacement	F15-SC7-1-5	11/15/2017
PM	AFO	annual PM	F15-SC7-1-5	11/18/2017
PM	AFO	annual pH and flow calibrations	F15-SC7-1-6	11/1/2017
PM	AFO	annual PM	F15-SC7-1-6	12/18/2017