



March 15, 2023

Ms. Patty Jacobs  
Department of Environmental Quality  
Northwest Region – Air Quality Program  
700 NE Multnomah St., Suite 600  
Portland, Oregon 97232-5263

**Re: Intel Corporation, Aloha and Ronler Acres Campuses, ACDP 34-2681-ST-01  
Calendar Year 2022 Annual Report**

Dear Ms. Jacobs:

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.

During calendar year 2022, there were two bypass events reported to ODEQ: one reported on July 8, 2022 for an event that occurred on June 25, 2022 due to a malfunction and subsequent shutdown of an RCTO; another reported on December 24, 2022 for an event that occurred on December 16, 2022 due to operator error in isolating an online unit during maintenance operations on an already down unit.

There were three instances of deviations from permit condition 45, reported to ODEQ on March 4<sup>th</sup> 2022, July 26, 2022, and September 16, 2022: two of which were maintenance checks and readiness testing (M&R testing) outside the daytime hours of operation of 8 am and 6 pm; and one due to extended operation following a PGE outage.

There was one instance of deviation from permit conditions 39, 40, and 72 that began on July 7, 2022, discovered on September 9, 2022 and was reported to ODEQ on September 23, 2022. This instance was due to loss of pH monitoring capabilities on an acid scrubber due to operator error.

This annual report is being submitted in a timely manner on or before March 15, 2023 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 no later than 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 of 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.

**77.b.ii.: Emission 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 2022.

**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 May of 2022. 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 2022 are summarized below.

- Diesel Fuel Combusted
  - Aloha: 1,806 gallons
  - Ronler Acres: 44,688 gallons
  - Total: 46,493 gallons
- Natural Gas Combusted
  - Aloha: 182 MMscf
  - Ronler Acres: 1,359 MMscf
  - Total: 1,541 MMscf

**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. VOC emissions include both controlled and uncontrolled VOC emissions from the site.

**77.b.vii.: Revisions of the pollutant capture efficiency function used for compliance emission calculations in condition 60:**

No revisions were made to pollutant capture efficiencies used for compliance emission calculations in condition 60.

**77.b.viii.: Summary of physical changes pursuant to Condition 16:**

During calendar year 2022, there were no physical changes, additions and/or process modifications or associated pollution prevention projects performed to offset emission increases in accordance with Permit ACDP 34-2681-ST-01 Condition 16 regarding Operational Flexibility.

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

During calendar year 2022, there were no formal complaints or inquiries.

**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, scrubbers, WESPs 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.*

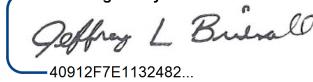
VP, Technology Development  
GM, LTD Manufacturing

Jeffrey Birdsall

---

Name of designated responsible official

DocuSigned by:



Jeffrey L. Birdsall  
40912F7E1132482...

---

Title of responsible official

March 15, 2023

---

Signature of responsible official

---

Date

Very sincerely,

DocuSigned by:



Michael Anders

CD13B220B279407...

[Michael Anders](#)

OR Environmental Compliance Manager

cc. Site Air Correspondence File

**Intel Corporation** 2501 NE Century Blvd Hillsboro, OR 97124

email [michael.j.anders@intel.com](mailto:michael.j.anders@intel.com) phone +1.971.563.4869

**Regd. Office** 2200 Mission College Blvd., Santa Clara, CA 95054-1549, United States

# **Attachment A:**

## **DEQ Form F1101**



DEQ

State of Oregon  
Department of  
Environmental  
Quality

## Total Emissions by Regulated Pollutant

FORM F1101

|  |  |
|--|--|
| 1. Reporting year: <b>2022</b>   |  |
| 2. Facility name:<br>Intel Corporation - Aloha & Ronler Acres  | 4. Permit number:<br><b>ACDP 34-2681-ST-01</b>   |
| 3. Aloha Campus, 3585 SW 198th Ave, Aloha, OR 97007<br><br>Mailing street address or PO Box<br><br>Ronler Acres, 2501 NE Century Blvd, Hillsboro, OR 97124   | 5. Michael Anders, OR Environmental Compliance Manager<br><br>Contact name and title<br><b>(971) 563-4869</b><br><br>Phone number with area code |
| 6. Emissions (in tons) by regulated air pollutant subject to fees for the reporting year:  |  |
| PM <sub>10</sub> *   | <b>35</b>  |
| or PM  |  |
| or PM <sub>2.5</sub>   |  |
| or TSP   |  |
| SO <sub>2</sub>  | <b>39</b>  |
| NO <sub>x</sub> (as NO <sub>2</sub> )  | <b>197</b>   |
| VOC  | <b>178</b>   |
| * 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. |  |
| 7. Total emissions (in tons) of pollutants subject to fees for the reporting year: <b>449</b>  |  |
| 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.  |  |
| Jeffrey Birdsall<br><br>Name of designated responsible official<br><br>Signature of responsible official   | VP, Technology Development GM, LTD<br>Manufacturing<br><br>Title of responsible official<br><br>March 15, 2023<br><br>Date                       |

# **Attachment B:**

## **Calendar Year 2022 12-Month Rolling Emission Inventory**

| Pollutant                 | Rolling 12-month Total Emissions (Ronler Acres and Aloha Facilities combined) |         |         |         |         |         |         |         |         |         |         |         | PSEL<br>tons/year | Units         |  |
|---------------------------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|---------------|--|
|                           | Jan-22  | Feb-22  | Mar-22  | Apr-22  | May-22  | Jun-22  | Jul-22  | Aug-22  | Sep-22  | Oct-22  | Nov-22  | Dec-22  |                   |               |  |
| PM                        | 28.9  | 28.9    | 28.9    | 28.7    | 28.3    | 27.7    | 27.4    | 27.2    | 27.3    | 26.6    | 24.6    | 23.3    | 41                | tons per year |  |
| PM10                      | 23.5  | 23.6    | 23.5    | 23.4    | 22.9    | 22.4    | 22.1    | 21.9    | 22.0    | 21.3    | 19.2    | 18.0    | 35                |               |  |
| PM2.5                     | 19.2  | 19.3    | 19.3    | 19.1    | 18.7    | 18.1    | 17.8    | 17.6    | 17.7    | 17.0    | 14.9    | 13.7    | 31                |               |  |
| NOx                       | 156.0   | 158.0   | 157.9   | 157.2   | 159.2   | 159.2   | 158.7   | 155.8   | 150.7   | 146.5   | 143.2   | 139.1   | 197               |               |  |
| CO                        | 186.0   | 188.1   | 185.8   | 184.2   | 183.4   | 182.0   | 183.1   | 180.8   | 176.1   | 171.0   | 166.2   | 160.8   | 229               |               |  |
| SO2                       | 3.3   | 3.4     | 3.5     | 3.4     | 3.5     | 3.5     | 3.5     | 3.5     | 3.4     | 3.4     | 3.4     | 3.4     | 39                |               |  |
| VOC                       | 85.3  | 84.8    | 85.1    | 85.0    | 84.9    | 84.9    | 84.1    | 82.0    | 80.5    | 78.2    | 77.7    | 74.8    | 178               |               |  |
| Total Fluorides           | 2.1   | 2.2     | 2.2     | 2.3     | 2.3     | 2.3     | 2.4     | 2.4     | 2.5     | 2.5     | 2.5     | 2.4     | 6.4               |               |  |
| Total HAPs                | 6.49  | 6.49    | 6.51    | 6.58    | 6.57    | 6.68    | 6.82    | 6.77    | 7.50    | 7.38    | 7.17    | 6.95    | 24                |               |  |
| Individual HAP - HF       | 4.85  | 4.91    | 5.00    | 5.10    | 5.17    | 5.25    | 5.32    | 5.34    | 5.55    | 5.52    | 5.69    | 5.25    | 9                 |               |  |
| Individual HAP - HCl      | 0.77  | 0.75    | 0.71    | 0.71    | 0.66    | 0.64    | 0.63    | 0.61    | 1.18    | 1.14    | 1.17    | 1.09    | 9                 |               |  |
| Individual HAP - COS      | 0.38  | 0.35    | 0.33    | 0.31    | 0.30    | 0.27    | 0.25    | 0.21    | 0.18    | 0.15    | 0.12    | 0.09    | 9                 |               |  |
| Individual HAP - Methanol | 0.18  | 0.19    | 0.18    | 0.18    | 0.17    | 0.19    | 0.23    | 0.22    | 0.22    | 0.21    | 0.22    | 0.21    | 9                 |               |  |
| GHG                       | 554,477   | 540,544 | 526,612 | 512,680 | 498,747 | 484,815 | 470,882 | 456,950 | 443,017 | 429,085 | 415,153 | 389,476 | 819,000           |               |  |

# **Attachment C:**

## **List of Major Maintenance on RCTOs and Scrubbers in Calendar Year 2022**

















|        |                  |  |            |
|--------|------------------|--|------------|
| RA-F20 | DIB-AIT133-1-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-107 | 2/2/2022   |
| RA-F20 | DIB-AIT133-1-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-107 | 5/3/2022   |
| RA-F20 | DIB-AIT133-1-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-107 | 8/9/2022   |
| RA-F20 | DIB-AIT133-1-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-107 | 11/6/2022  |
| RA-F20 | DIB-AIT133-1-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-09A | 2/2/2022   |
| RA-F20 | DIB-AIT133-1-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-09A | 5/3/2022   |
| RA-F20 | DIB-AIT133-1-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-09A | 8/9/2022   |
| RA-F20 | DIB-AIT133-1-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-1-09A | 11/6/2022  |
| RA-F20 | DIB-AIT133-2-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-107 | 1/2/2022   |
| RA-F20 | DIB-AIT133-2-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-107 | 3/26/2022  |
| RA-F20 | DIB-AIT133-2-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-107 | 6/25/2022  |
| RA-F20 | DIB-AIT133-2-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-107 | 10/9/2022  |
| RA-F20 | DIB-AIT133-2-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-09A | 1/2/2022   |
| RA-F20 | DIB-AIT133-2-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-09A | 3/26/2022  |
| RA-F20 | DIB-AIT133-2-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-09A | 6/25/2022  |
| RA-F20 | DIB-AIT133-2-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-2-09A | 10/9/2022  |
| RA-F20 | DIB-AIT133-3-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-107 | 2/21/2022  |
| RA-F20 | DIB-AIT133-3-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-107 | 5/20/2022  |
| RA-F20 | DIB-AIT133-3-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-107 | 8/25/2022  |
| RA-F20 | DIB-AIT133-3-07A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-107 | 12/6/2022  |
| RA-F20 | DIB-AIT133-3-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-09A | 2/21/2022  |
| RA-F20 | DIB-AIT133-3-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-09A | 5/20/2022  |
| RA-F20 | DIB-AIT133-3-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-09A | 8/25/2022  |
| RA-F20 | DIB-AIT133-3-09A | Rosemount Model 56 pH/Conductivity Transmitter Calibration Quartley Hierarchy DIB-AIT133-3-09A | 12/6/2022  |
| RA-F20 | DIB-AIT138-1-54  | EXVO LFL Analyzer Annual Maintenance DIB-AIT138-1-54   | 8/30/2022  |
| RA-F20 | DIB-AIT138-2-54  | EXVO LFL Analyzer Annual Maintenance DIB-AIT138-2-54   | 8/6/2022   |
| RA-F20 | DIB-AIT138-3-54  | EXVO LFL Analyzer Annual Maintenance DIB-AIT138-3-54   | 8/23/2022  |
| RA-F20 | DIB-FIT133-2-05A | SCRUBBER ANNUAL--Flow Transmitter Calibration DIB-FIT133-2-05                                  | 3/26/2022  |
| RA-F20 | DIB-FIT133-3-05A | SCRUBBER ANNUAL--Flow Transmitter Calibration DIB-FIT133-3-05                                  | 2/2/2022   |
| RA-F20 | DIB-FIT138-3-20A | VOC ANNUAL--Flow Transmitter Calibration DIB-FIT138-3-120                                      | 3/27/2022  |
| RA-F20 | DIB-TEI38-3-45A  | VOC ANNUAL--Temperature Simulation Calibration DIB-TEI38-3-45A                                 | 3/27/2022  |
| RA-F20 | DIB-TEI38-3-56A  | VOC ANNUAL--Temperature Simulation Calibration DIB-TEI38-3-56A                                 | 3/27/2022  |
| RA-F20 | DIB-TEI38-3-74A  | VOC ANNUAL--Temperature Simulation Calibration DIB-TEI38-3-74A                                 | 3/27/2022  |
| RA-F20 | DIB-VOC138-1-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-1-22                                     | 3/11/2022  |
| RA-F20 | DIB-VOC138-1-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-1-22                                     | 5/18/2022  |
| RA-F20 | DIB-VOC138-1-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-1-22                                     | 8/22/2022  |
| RA-F20 | DIB-VOC138-1-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-1-22                                     | 11/18/2022 |
| RA-F20 | DIB-VOC138-2-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-2-22                                     | 1/7/2022   |
| RA-F20 | DIB-VOC138-2-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-2-22                                     | 4/9/2022   |
| RA-F20 | DIB-VOC138-2-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-2-22                                     | 7/5/2022   |
| RA-F20 | DIB-VOC138-2-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC138-2-22                                     | 10/10/2022 |
| RA-F20 | DIB-VOC138-3-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC-138-3-22                                    | 3/28/2022  |
| RA-F20 | DIB-VOC138-3-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC-138-3-22                                    | 6/24/2022  |
| RA-F20 | DIB-VOC138-3-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC-138-3-22                                    | 9/24/2022  |
| RA-F20 | DIB-VOC138-3-22  | VOC Abatement System (EXVO) (Sequenced) PM DIB-VOC-138-3-22                                    | 12/28/2022 |
| RA-F20 | F20-SC133-1-111  | EXSC Scrubber Sequenced PM F20-SC133-1-111   | 5/3/2022   |
| RA-F20 | F20-SC133-1-111  | EXSC Scrubber Sequenced PM F20-SC133-1-111   | 11/6/2022  |
| RA-F20 | F20-SC133-2-111  | EXSC Scrubber Sequenced PM F20-SC133-2-111   | 3/26/2022  |
| RA-F20 | F20-SC133-2-111  | EXSC Scrubber Sequenced PM F20-SC133-2-111   | 10/3/2022  |
| RA-F20 | F20-SC133-3-111  | EXSC Scrubber Sequenced PM F20-SC133-3-111   | 2/2/2022   |
| RA-F20 | F20-SC133-3-111  | EXSC Scrubber Sequenced PM F20-SC133-3-111   | 8/29/2022  |
| RA-F20 | F20-SC-134-1-100 | Ronler Acers Scrubbed Exhaust (EXSC) Scrubber (Sequenced) PM F20-SC-134-1-100                  | 2/11/2022  |
| RA-F20 | F20-SC-134-1-100 | Ronler Acers Scrubbed Exhaust (EXSC) Scrubber (Sequenced) PM F20-SC-134-1-100                  | 7/8/2022   |