

BEFORE THE ENVIRONMENTAL QUALITY COMMISSION
OF THE STATE OF OREGON

IN THE MATTER OF:)
INTEL CORPORATION,) MUTUAL AGREEMENT
a Delaware corporation.) AND ORDER
)
) No. AQ/AC-NWR-14-027
)

WHEREAS:

1. Intel Corporation (Intel), owns and operates semiconductor manufacturing facilities, the primary one of which is located at 2501 NW 229th Avenue, Hillsboro, Oregon (Ronler Acres Facility) and the secondary is located at 3585 SW 198th Avenue, Aloha, Oregon (Aloha Facility) (collectively referred to as combined facilities).

2. The Aloha Facility commenced operations in 1976. Intel has estimated that in 1978, the Aloha Facility emitted approximately 0.5 tons per year of inorganic fluoride compounds, excluding hydrogen fluoride (Fluorides).

3. Development of the Ronler Acres Facility commenced in 1994.

4. In 1995, the Department of Environmental Quality (DEQ) issued Intel an Oregon Title V Operating Permit for the Aloha Facility, based on the Aloha Facility's potential to emit of up to 190 tons per year of volatile organic compounds (VOC). In October 1999, DEQ issued Intel an Air Contaminant Discharge Permit (ACDP) limiting the Aloha Facility VOC emissions to 99 tons per year. The Aloha Facility Title V permit was terminated in accordance with OAR 340-218-0020(2).

5. In 1999, Intel submitted a renewal application for the Ronler Acres Facility ACDP. On July 1, 2001, the Environmental Quality Commission adopted rules establishing de minimis emission rates for determining whether a Plant Site Emission Limit (PSEL) is required and stating in OAR 340-222-0020(1) that "The Department will incorporate PSELs into permits when issuing a new permit or renewing or modifying an existing permit." OAR 340-222-0020(2) states that "the emission limits established by PSELs provide the basis for:

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1 (a) Assuring reasonable further progress toward attaining compliance with
2 ambient air standards;

3 (b) Assuring compliance with ambient air standards and Prevention of Significant
4 Deterioration (PSD) increments;

5 (c) Administering offset and banking programs; and

6 (d) Establishing the baseline for tracking the consumption of Prevention of
7 Significant Deterioration increments.”

8 6. No ambient air standards, PSD increments or offsets or banking programs apply to
9 Fluorides.

10 7. On May 30, 2002, DEQ issued the Ronler Acres Facility ACDP. The ACDP did
11 not contain a Fluorides PSEL.

12 8. On September 1, 2004, Intel submitted a renewal application for the Aloha
13 Facility ACDP. This renewal application did not identify Fluorides as being emitted in excess of
14 the de minimis emission rate of 0.3 tons per year.

15 9. In 2007, the operations at the Aloha Facility and the Ronler Acres Facility had
16 grown sufficiently interdependent that DEQ considered them a single source. On December 31,
17 2007, DEQ issued an ACDP to Intel that covered both facilities and restricted the aggregate
18 operations to below the major source thresholds (Ronler Acres ACDP). The Ronler Acres
19 ACDP did not contain a PSEL for Fluorides emissions.

20 10. Intel has estimated that had a Fluorides PSEL been established in the December
21 31, 2007 Ronler Acres ACDP, the PSEL would have been 3.4 tons per year Fluorides.

22 11. In September 2010, Intel submitted a Type 2 request for construction approval to
23 DEQ for the expansion of the Ronler Acres Facility. The application did not identify non-criteria
24 pollutants, including Fluorides, and did not request any PSEL increases. Type 2 construction
25 approvals are limited to projects where no increase in the PSEL is being requested.

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1 12. On December 20, 2010, DEQ issued Intel a Type 2 construction approval for the
2 Ronler Acres Facility expansion. At the time DEQ granted the construction approval, Intel was
3 not a Federal Major Source and greenhouse gases (GHGs) were not regulated by DEQ.

4 13. In approximately February 2011, Intel began construction of the Ronler Acres
5 Facility expansion.

6 14. On May 1, 2011, DEQ adopted rules establishing GHGs as a regulated air
7 pollutant. The rules established that a source having the potential to emit 100,000 tons per year
8 or more of carbon dioxide equivalent (CO₂e) is a major source for the purposes of PSD and Title
9 V review and permitting requirements. Because the combined facilities have the potential to
10 emit greater than 100,000 tons per year of CO₂e, the combined facilities were considered a
11 Federal Major Source for all future PSD determinations and was required to submit a Title V
12 permit application to DEQ by July 1, 2012.

13 15. In early 2012, Intel determined that it emitted Fluorides in excess of the de
14 minimis emission rate (Table 4 of OAR 340-200-0020) and that a Fluorides PSEL to
15 accommodate existing combined facilities operations, as well as the Ronler Acres Facility
16 expansion, would be 6.4 tons per year.

17 16. On April 12, 2012, Intel submitted a Title V permit application. In the
18 application, Intel notified DEQ of the Fluorides emissions and requested that DEQ establish a
19 Fluorides PSEL of 6.4 tons per year, in accordance with OAR 340-218-0040(3)(c)(C).

20 17. On August 16, 2013, DEQ proposed to issue a Title V permit for Intel with a 6.4
21 tons per year Fluorides PSEL. The comment period on the draft Title V permit closed on
22 October 14, 2013.

23 18. Between January 2011 and the present, Fluorides emissions from the combined
24 facilities have not exceeded 3.4 tons per year on a rolling 12-month total basis.

25 19. During the Title V permit comment period, DEQ concluded that Intel should have
26 obtained a Type 3 or 4 construction approval rather than a Type 2 construction approval for the
27 Ronler Acres Facility expansion. A Type 3 or higher construction approval is required if the

1 PSEL for any pollutant must change by more than the de minimis emission rate. OAR 340-210-
2 0240(1)(c) states that “For Type 3 changes, the owner or operator must obtain either a
3 Construction ACDP or a new or modified Standard ACDP before proceeding with the
4 construction or modification.”

5 20. OAR 340-210-0205 and -0215 prohibit, without first notifying DEQ in writing,
6 (a) construction of a new stationary source that will cause an increase in any regulated air
7 pollutant emissions, (b) modification of an existing stationary source that will cause an increase,
8 on an hourly basis at full production, in any regulated air pollutant emissions, or (c) construction
9 or modification of any air pollution control equipment used to comply with emission limits or
10 used to avoid Oregon Title V Operating Permits (OAR 340, Division 218), New Source Review
11 requirements (OAR 340, Division 224), or MACT standards (OAR 340, Division 244).

12 21. Intel failed to obtain either a Construction ACDP or a new or modified Standard
13 ACDP before proceeding with the Ronler Acres Facility expansion. Intel is constructing and
14 operating Ronler Acres Facility equipment that has not been granted proper construction
15 authorization by DEQ.

16 22. Condition 6.3 of the Ronler Acres ACDP requires that Intel submit certain
17 information by February 15th of each year for the previous calendar year (annual report). Intel
18 has reviewed its annual ACDP reports for the past five years and identified errors in the reporting
19 of certain values for certain years. Intel subsequently submitted corrected reports to DEQ.

20 23. Intel emitted Fluorides, a regulated pollutant, above the de minimis emission rate
21 without submitting an application for a Fluorides PSEL as required by OAR 340-222-0020(1).
22 This is a Class II violation pursuant to OAR 340-012-0054(2)(h).

23 24. Intel submitted permit renewal and construction approval applications that failed
24 to notify DEQ that Intel emitted Fluorides above the de minimis emission rate, in violation of
25 OAR 340-214-0110. This is a Class I violation pursuant to OAR 340-012-0053(1)(b).

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1 25. Intel began modifying the Ronler Acres Facility without first obtaining either a
2 Construction or Standard permit modification to add a Fluorides PSEL as required by OAR 340-
3 012-0230(2). This is a Class II violation pursuant to OAR 340-012-0054(2)(c).

4 26. DEQ and Intel recognize that the Environmental Quality Commission has the
5 authority to impose a civil penalty and to issue an abatement order for violations of Oregon
6 environmental law. Therefore, pursuant to ORS 183.415(5), DEQ and Intel agree to settle past
7 violations and to resolve alleged potential ongoing violations as described in Paragraphs 11
8 through 25 above, in advance, through this Mutual Agreement and Order (MAO). This MAO
9 also establishes a compliance/corrective action schedule for Intel to obtain accurate and updated
10 construction approvals.

11 27. By entering into this MAO, Intel neither admits nor denies the allegations related
12 to or arising from any of the matters in this MAO.

13 28. This MAO is not intended to limit, in any way, DEQ's right to proceed against
14 Intel in any forum for any past or future violations not expressly settled herein.

15 NOW THEREFORE, it is stipulated and agreed that:

16 29. The Environmental Quality Commission shall issue a final order requiring that:

17 a. No later than the 15th day following each calendar quarter, Intel shall
18 submit to DEQ and post on the Explore Intel web page (www.ExploreIntel.com/RonlerAcres)
19 the total Fluorides emissions from the combined facilities for that quarter and the previous three
20 quarters. The Fluorides emission estimate must reflect the best emissions data available to Intel
21 at the time the estimate is submitted/posted. Intel may, but is not required to, update prior
22 quarters as new data becomes available.

23 b. Intel must implement testing as follows:

24 i. No later than May 1, 2014, Intel must submit for DEQ approval, a
25 proposed approach for testing Fluoride and hydrogen fluoride emissions from a representative
26 group of acid gas scrubbers at the combined facilities.

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1 ii. No later than 45 days prior to commencing each subsequent round,
2 Intel must submit for DEQ approval a proposed approach for conducting the second and third
3 rounds of testing.

4 iii. Testing must be performed on the following schedule:

- 5 1. The first round of testing must be completed no later than July
6 1, 2014;
- 7 2. The second round of testing must be completed no later than
8 December 31, 2014;
- 9 3. The third round of testing must be completed no later than
10 December 31, 2015.
- 11 4. DEQ may approve a single extension of up to 60 days for each
12 testing deadline in Paragraphs 29.b.iii.1-3. Any extensions
13 must be requested in writing by Intel, and approved in writing
14 by DEQ.

15 iv. A round of testing is considered complete when all necessary field
16 stack sampling has been completed.

17 v. Test reports must be submitted to DEQ no more than 60 calendar
18 days after the dates specified in Paragraphs 29.b.iii.1-3. In the event of an extension in
19 accordance with Paragraph 29.b.iii.4, the test report must be submitted to DEQ within 60 days of
20 the extension deadline.

21 c. No later than December 31, 2014, Intel must submit a Type 4 ACDP
22 application to DEQ for the combined facilities addressing the equipment identified in 2010, any
23 equipment existing or planned for which construction approval was not obtained, and any
24 additional equipment reasonably identifiable at this time for the Ronler Acres Facility expansion.
25 This application must consist, at a minimum, of the following elements:

26 i. An emissions inventory based on emissions testing performed
27 according to a test plan reviewed and approved by DEQ.

1 ii. Ambient air quality modeling of any regulated pollutants that
2 exceed PSD applicability thresholds and that are subject to ambient air quality standards;

3 iii. Ambient air quality modeling of hydrogen fluoride and Fluorides
4 including a comparison of accepted risk-based chronic exposure thresholds to modeled
5 concentrations at the nearest residences.

6 iv. A Fluorides control technology assessment for each emission point
7 emitting more than a de minimis amount of Fluorides.

8 d. Intel must not exceed 3.4 tons per year of Fluoride emissions from the
9 combined facilities on a rolling 12-month basis until DEQ issues an ACDP authorizing a higher
10 emission rate.

11 i. Within 45 days of completion of the emissions inventory required
12 by paragraph 29.c.i, Intel must submit for DEQ review and approval, a Fluorides monitoring plan
13 specifying the means by which compliance will be demonstrated with this emissions limit.

14 ii. Within 30 days of submittal, DEQ will either approve the Fluorides
15 monitoring plan or request specific revisions and re-submittal by Intel.

16 iii. Intel must calculate monthly Fluorides emissions consistent with
17 the draft Fluorides monitoring plan initially submitted for review until it is approved by DEQ.
18 No later than 30 days after DEQ approval of the Fluorides monitoring plan, Intel must implement
19 the approved Fluorides monitoring plan.

20 e. Intel must not exceed 301,000 tons per year of GHG emissions from the
21 combined facilities on a rolling 12-month basis until DEQ issues an ACDP authorizing a higher
22 emission rate.

23 i. Within 45 days of completion of the emissions inventory required
24 by paragraph 29.c.i, Intel must submit for DEQ review and approval, a GHG monitoring plan
25 specifying the means by which Intel will demonstrate compliance with this emission limit.

26 ii. Within 30 days of submittal, DEQ will either approve the GHG
27 monitoring plan or request specific revisions and re-submittal by Intel.

1 iii. Intel must calculate monthly GHG emissions consistent with the
2 draft GHG monitoring plan initially submitted for review until it is approved by DEQ. No later
3 than 30 days after DEQ approval of the GHG monitoring plan, Intel must implement the
4 approved GHG monitoring plan.

5 f. Intel must submit annual reports to DEQ detailing Intel's Fluorides and
6 GHG emissions as follows:

7 i. The first report is due no later than February 15, 2015, and must
8 consist of the monthly rolling 12-month Fluorides and GHG emissions for each month from
9 January 2011 through December 2014.

10 ii. Subsequent reports are due no later than February 15th of each year
11 until this MAO is terminated and must consist of the monthly rolling 12-month Fluorides and
12 GHG emissions ending in each calendar month from January through December of the preceding
13 year.

14 iii. Emissions in the reports must be calculated using emission factors
15 or methods approved by DEQ.

16 30. Requiring Intel to pay a civil penalty in the amount of \$143,000 within 60 days of
17 the date this MAO is fully executed for the alleged potential violations of DEQ's regulations as
18 described in Paragraphs 11 through 25. The penalty amount may be decreased by an amount
19 equal to that spent on one or more DEQ-approved Supplemental Environmental Projects (SEPs)
20 approved prior to the payment deadline, such decrease not to exceed \$114,400. Payment must be
21 made by check or money order made payable to the "Oregon State Treasurer" and sent to:
22 Business Office, Department of Environmental Quality, 811 SW Sixth Avenue, Portland, Oregon
23 97204. Intel must provide the documentation to DEQ specified in the SEP approval if Intel
24 chooses to implement a SEP.

25 31. Requiring Intel, upon receipt of a written Penalty Demand Notice from DEQ, to
26 pay the following civil penalties:

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1 a. \$250 for each day that Intel is late in providing to DEQ or posting
2 on the Explore Intel web page the quarterly Fluoride emissions; and

3 b. \$1,000 for each day that Intel violates any requirements of
4 Paragraphs 29b through 29f of this MAO.

5 32. If any event occurs that is beyond Intel's reasonable control that causes or may
6 cause a delay or deviation in performance of the requirements of this MAO, Intel must
7 immediately notify DEQ verbally of the cause of delay or deviation and its anticipated duration,
8 the measures that have been or will be taken to prevent or minimize the delay or deviation, and
9 the timetable by which Intel proposes to carry out such measures. Intel must confirm in writing
10 this information within five (5) working days of the onset of the event. It is Intel's responsibility
11 in the written notification to demonstrate to DEQ's satisfaction that the delay or deviation has
12 been or will be caused by circumstances beyond the reasonable control and despite due diligence
13 of Intel. If Intel so demonstrates, DEQ will extend times of performance of related activities
14 under this MAO as appropriate. Circumstances or events beyond Intel's control include, but are
15 not limited to, acts of nature, unforeseen strikes, work stoppages, fires, explosion, riot, sabotage,
16 or war. Increased cost of performance or consultant's failure to provide timely reports will not be
17 considered circumstances beyond Intel's reasonable control. However, delay in DEQ approval of
18 documents due to no act or omission of Intel's will be considered circumstances beyond Intel's
19 control.

20 33. Regarding the violations and potential violations set forth in Paragraphs 11
21 through 25 above, which are expressly settled herein, Intel hereby waives any and all of its rights
22 to any and all notices, a contested case hearing, judicial review, and to service of a copy of the
23 final order herein. DEQ reserves the right to enforce this order through appropriate administrative
24 and judicial proceedings.

25 34. DEQ and Intel may amend the terms of this MAO by mutual written agreement.

26 35. Intel agrees that this MAO shall be binding on Intel and its respective successors,
27 agents, and assigns. The undersigned representative of Intel certifies that he or she is fully

1 authorized to execute and bind Intel to this MAO. No change in ownership or corporate or
2 partnership status relating to the Ronler Acres Facility, the Aloha Facility or the combined
3 facilities will, in any way, alter Intel's obligation under this MAO, unless otherwise approved in
4 writing by DEQ.

5 36. All reports, notices and other communications required under or relating to this
6 MAO should be sent to: George Davis, DEQ Northwest Region Office, 2020 SW Fourth
7 Avenue, Suite 400, Portland, Oregon 97201. The contact person for Intel is: Anne Marie
8 McSwiggan, 5200 NE Elam Young Parkway, MS RS5-115, Hillsboro, Oregon 97124.

9 37. Intel acknowledges that it has actual notice of the contents and requirements of
10 this MAO and that failure to fulfill any of the requirements hereof will constitute a violation of
11 this MAO and will subject Intel to payment of civil penalties.

12 38. Any stipulated civil penalty imposed pursuant to Paragraph 31 is due upon written
13 demand. Stipulated civil penalties must be paid by check or money order made payable to the
14 "State Treasurer, State of Oregon" and sent to: Business Office, Department of Environmental
15 Quality, 811 SW Sixth Avenue, Portland, Oregon 97204. Within twenty-one (21) days of receipt
16 of a "Demand for Payment of Stipulated Civil Penalty" Notice from the Department, Intel may
17 request a hearing to contest the Demand Notice. At any such hearing, the issue will be limited to
18 Intel's compliance or noncompliance with this MAO. The amount of each stipulated civil
19 penalty for each violation and/or day of violation is established in advance by this MAO and will
20 not be a contestable issue.

21 39. DEQ may amend the compliance schedule and conditions in this MAO upon
22 finding that such modification is necessary because of changed circumstances or to protect public
23 health and the environment. DEQ must provide Intel a minimum of thirty (30) days written
24 notice prior to issuing an amended order modifying any compliance schedules or conditions. If
25 Intel contests the amended order, the applicable procedures for conduct of contested cases in
26 such matters will apply.

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