



State of Utah

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Department of  
Environmental Quality

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DIVISION OF AIR QUALITY  
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DAQE-IN114080020-23

April 4, 2023

Mike Smith  
Texas Instruments Incorporated  
4000 North Flash Drive  
Lehi, UT 84043  
m-smith3@ti.com

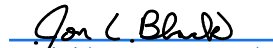
Dear Mr. Smith:

Re: Intent to Approve:  
Modification to Approval Order to DAQE-AN114080017-18, to Add Additional Manufacturing  
Project Number: N114080020

The attached document is the Intent to Approve (ITA) for the above-referenced project. The ITA is subject to public review. Any comments received shall be considered before an Approval Order (AO) is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Future correspondence on this ITA should include the engineer's name, **Tad Anderson**, as well as the DAQE number as shown on the upper right-hand corner of this letter. Tad Anderson, can be reached at (385) 306-6515 or tdanderson@utah.gov, if you have any questions.

Sincerely,

  
Jon Black (Apr 4, 2023 14:31 MDT)

Jon L. Black, Manager  
New Source Review Section

JLB:TA:jg

cc: Utah County Health Department  
Dan Fagnant, EPA Region 8

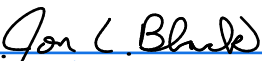
**STATE OF UTAH**  
**Department of Environmental Quality**  
**Division of Air Quality**

**INTENT TO APPROVE**  
**DAQE-IN114080020-23**  
**Modification to Approval Order to DAQE-AN114080017-18, to Add**  
**Additional Manufacturing**

**Prepared By**  
**Tad Anderson, Engineer**  
**(385) 306-6515**  
**tdanderson@utah.gov**

**Issued to**  
**Texas Instruments Incorporated**

**Issued On**  
**April 4, 2023**

  
Jon Black (Apr 4, 2023 14:31 MDT)

**New Source Review Section Manager**  
**Jon L. Black**

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## GENERAL INFORMATION

### CONTACT/LOCATION INFORMATION

**Owner Name**

Texas Instruments Incorporated

**Source Name**

Texas Instruments Incorporated (TI)

**Mailing Address**

4000 North Flash Drive  
Lehi, UT 84043-3175

**Physical Address**

4000 North Flash Drive  
Lehi, UT 84043-3175

**Source Contact**

Name Mike Smith  
Phone (801) 767-8773  
Email m-smith3@ti.com

**UTM Coordinates**

429,463 m Easting  
4,476,787 m Northing  
Datum NAD27  
UTM Zone 12

**SIC code** 3674 (Semiconductors & Related Devices)

### SOURCE INFORMATION

**General Description**

Texas Instruments (TI) currently operates a semiconductor manufacturing facility located in Lehi, Utah. The existing semiconductor manufacturing consists of a central utility plant, wastewater treatment plant, bulk gas plant, and chemical and gas handling facilities to support the manufacturing of semiconductor products.

**NSR Classification**

New Major Source - Nonattainment Area

**Source Classification**

Located in Southern Wasatch Front O3 NAA, Provo UT PM<sub>2.5</sub> NAA  
Utah County  
Airs Source Size: A

**Applicable Federal Standards**

NSPS (Part 60), A: General Provisions  
NSPS (Part 60), Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units  
NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines  
MACT (Part 63), A: General Provisions  
MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines  
MACT (Part 63), CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities  
Title V (Part 70) Major Source

Project Description

TI has been experiencing increased market demand for semiconductor products. TI has requested to construct additional manufacturing space. TI is proposing to expand manufacturing capacity by constructing a second manufacturing facility adjacent to the existing building. The manufacturing expansion project will operate interdependently with the existing manufacturing area. The new wafer manufacturing will require the construction of a new central utility plant, wastewater treatment plant, bulk gas plant, and chemical and gas handling facilities to support the manufacturing of semiconductor products.

The new wafer manufacturing will include the following equipment:

- 17 - acid scrubbers
- 11 - ammonia scrubbers
- 14 - 25.2-MMBtu/hr natural gas-fired boilers
- 11 - 1,250-kW emergency generators
- 6 - VOC abatement units
- Cooling towers
- Chemical and gas handling facilities

With the new building construction of the additional wafer manufacturing is classified as a minor modification to an existing minor source; however, following the modification the source will be reclassified as a major source. The new total PTE for the facility makes TI major for NO<sub>x</sub>, CO, VOC, HAP's and GHG's. The threshold for major source classification is 100 TPY for criteria emissions (70 TPY for VOC) and 10 TPY of a single HAP or 25 TPY of combined HAPs.

TI has requested a modification with a combined NO<sub>x</sub>, SO<sub>x</sub> and PM<sub>10</sub> total exceeding 25 tons per year. The proposed project results in combined (17.91 TPY of PM<sub>10</sub>, 3.59 TPY of SO<sub>x</sub> and 52.65 TPY of NO<sub>x</sub>) offset amount of 74.15 TPY. TI is required to offset the 74.15 TPY at a 1.2:1 ratio. The total amount of offsets that are required is 89 TPY.

**SUMMARY OF EMISSIONS**

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

<b>Criteria Pollutant</b>	<b>Change (TPY)</b>	<b>Total (TPY)</b>
CO <sub>2</sub> Equivalent	680952	1,218,929
Carbon Monoxide	59.11	128.92
Nitrogen Oxides	52.65	118.95
Particulate Matter - PM <sub>10</sub>	17.73	56.04
Particulate Matter - PM <sub>2.5</sub>	15.90	44.91
Sulfur Oxides	3.59	6.43
Volatile Organic Compounds	86.80	149.92

<b>Hazardous Air Pollutant</b>	<b>Change (lbs/yr)</b>	<b>Total (lbs/yr)</b>
Chlorine (CAS #7782505)	5240	13840
Generic HAPs (CAS #GHAPS)	175	435
Hexane (CAS #110543)	3820	8020
Hydrochloric Acid (Hydrogen Chloride) (CAS #7647010)	5880	12720
Hydrogen Fluoride (Hydrofluoric Acid) (CAS #7664393)	26880	44840
	<b>Change (TPY)</b>	<b>Total (TPY)</b>
Total HAPs	21	39.93

## PUBLIC NOTICE STATEMENT

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Director.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in The Daily Herald on April 6, 2023. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

## SECTION I: GENERAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]

I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
I.8	The owner/operator shall submit documentation of the status of construction or modification to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

## SECTION II: PERMITTED EQUIPMENT

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

### **II.A      THE APPROVED EQUIPMENT**

II.A.1	<b>Lehi Facility</b> Semiconductor Manufacturing Facility
II.A.2	<b>Emergency Generator</b> Location:        Building 10 Unit ID:         10EG-01 Capacity:        1850 HP Applicability:   Subpart ZZZZ
II.A.3	<b>Emergency Generator</b> Location:        Building 11 Unit ID:         11EG-01 Capacity:        896 HP Applicability:   Subpart ZZZZ
II.A.4	<b>Emergency Generator</b> Location:        Building 20 Unit ID:         20EG-01 Capacity:        115 HP Applicability:   Subpart ZZZZ

II.A.5	<p><b>(8) Boilers</b>  Location: Building 30  Unit ID: 30BLR-01 thru 08  Capacity: 25.1 MMBtu/hr (each)  Controls: Low NO<sub>x</sub> Burners (30 ppm NO<sub>x</sub>)  30 BLR-01 thru 03, 07 and 08 are equipped with FGR  Applicability: Subpart Dc</p>
II.A.6	<p><b>(4) Boilers</b>  Location: Building 30  Unit ID: 30BLR-09 thru 12  Capacity: 25.2 MMBtu/hr (each)  Controls: Low NO<sub>x</sub> Burners (30 ppm NO<sub>x</sub> for 09 and 10, 9 ppm NO<sub>x</sub> for 11 and 12)  30 BLR-09 and 10 are equipped with FGR  Applicability: Subpart Dc</p>
II.A.7	<p><b>(2) Emergency Generator</b>  Location: Building 30  Unit ID: 30EG-01 and 02  Capacity: 1817 HP (each)  Applicability: Subpart ZZZZ</p>
II.A.8	<p><b>(4) Cooling Towers</b>  Location: Building 30  Unit ID: 30CT-01 and 04  Controls: Drift eliminator (each)</p>
II.A.9	<p><b>(2) Acid Scrubbers</b>  Location: Building 31  Unit ID: 31SCRA-01 and 02</p>
II.A.10	<p><b>Water Treatment Plant</b>  Lime Silo Baghouse  Location: Building 31  Unit ID: 31SILO-BH-01</p>
II.A.11	<p><b>(2) VOC Abatement Units</b>  Location: Building 40  Unit ID: 40VOC-01 and 02  Control: Roto concentrators with thermal oxidizer  Thermal Oxidizer Capacity: Less than 5 MMBtu/hr (each)</p>
II.A.12	<p><b>(4) VOC Abatement Units</b>  Location: Building 40  Unit ID: 40CSE-01 thru 04  Control: Thermal oxidizer  Thermal Oxidizer Capacity: Less than 5 MMBtu/hr (each)</p>
II.A.13	<p><b>(8) Acid Scrubbers</b>  Location: Building 40  Unit ID: 40SCRA-01 thru 08</p>
II.A.14	<p><b>(5) Ammonia Scrubbers</b>  Location: Building 40  Unit ID: 40SCRC-01 thru 05</p>

II.A.15	<p><b>Emergency Generator</b>                  Location: Building 40                  Unit ID: 40EG-01                  Capacity: 1863 HP                  Applicability: Subpart III</p>
II.A.16	<p><b>Emergency Generator</b>                  Location: Building 40                  Unit ID: 40EG-02                  Capacity: 1863 HP                  Applicability: Subpart ZZZZ</p>
II.A.17	<p><b>(2) VOC Abatement Units</b>                  Location: Building 50                  Unit ID: 50VOC-01 and 02                  Control: Roto concentrators with thermal oxidizer                  Thermal Oxidizer Capacity: Less than 5 MMBtu/hr</p>
II.A.18	<p><b>(16) Acid Scrubbers</b>                  Location: Building 50                  Unit ID: 50SCRA-01 thru 16</p>
II.A.19	<p><b>(6) Ammonia Scrubbers</b>                  Location: Building 50                  Unit ID: 50SCRC-01 thru 06</p>
II.A.20	<p><b>(3) Emergency Generators</b>                  Location: Building 50                  Unit ID: 50EG-01 thru 03                  Capacity: 1818 HP (each)                  Applicability: Subpart ZZZZ</p>
II.A.21	<p><b>(2) Acid Scrubbers</b>                  Location: Building 51                  Unit ID: 51SCRA-01 and 02</p>
II.A.22	<p><b>Emergency Generator</b>                  Location: Building 51                  Unit ID: 51EG-01                  Capacity: 263 HP                  Applicability: Subpart ZZZZ</p>
II.A.23	<p><b>(2) Solvent Waste Tanks</b>                  Location: Building 51                  Unit ID: 51SWF-01 and 02                  Capacity: 10,000 (each)</p>
II.A.24	<p><b>(2) Solvent Waste Tanks</b>                  Location: Building 51                  Unit ID: 51SWP-01 and 02                  Capacity: 10,000 (each)</p>
II.A.25	<p><b>(6) Acid Scrubbers</b>                  Location: Building 60                  Unit ID: 60SCRA-05 and 10</p>

II.A.26	<p><b>Emergency Generator</b>                  Location: Building 60                  Unit ID: 60EG-01                  Capacity: 896 HP                  Applicability: Subpart ZZZZ</p>
II.A.27	<p><b>Emergency Generator</b>                  Location: Building 60                  Unit ID: 60EG-01                  Capacity: 2206 HP                  Applicability: Subpart III</p>
II.A.28	<p><b>Emergency Generator</b>                  Location: Building 61                  Unit ID: 61EG-01                  Capacity: 755 HP                  Applicability: Subpart III</p>
II.A.29	<p><b>Cooling Tower</b>                  Location: Building 61                  Unit ID: 61CT-01                  Controls: Drift eliminator</p>
II.A.30	<p><b>(6) VOC Abatement Units (NEW)</b>                  Location: Building 70                  Unit ID: 70VOC-01 thru 06                  Control: Roto concentrators with thermal oxidizer                  Thermal Oxidizer Capacity: Less than 5 MMBtu/hr (each)</p>
II.A.31	<p><b>(14) Boilers (NEW)</b>                  Location: Building 70                  Unit ID: 70BLR-01 thru 14                  Capacity: 25.2 MMBtu/hr (each)                  Applicability: Subpart Dc</p>
II.A.32	<p><b>(17) Acid Scrubbers (NEW)</b>                  Location: Building 70                  Unit ID: 70SCRA-01 and 17</p>
II.A.33	<p><b>(11) Ammonia Scrubbers (NEW)</b>                  Location: Building 70                  Unit ID: 70SCRC-01 thru 11</p>
II.A.34	<p><b>(11) Emergency Generators (NEW)</b>                  Location: Building 70                  Unit ID: 70EG-01 thru 11                  Capacity: 2206 HP (each)                  Applicability: Subpart III</p>
II.A.35	<p><b>Water Treatment Plant (NEW)</b>                  Lime Silo Baghouse                  Location: Building 70                  Unit ID: 70SILO-BH-01</p>

II.A.36	<p><b>(4) Solvent Storage Tanks (NEW)</b>                  Location: Building 70                  Unit ID: 70SWF-01 thru 04                  Capacity: 10,000 (each)</p>
II.A.37	<p><b>(4) Cooling Towers (NEW)</b>                  Location: Building 70                  Unit ID: 70CT-01 and 04                  Controls: Drift eliminator (each)</p>
II.A.38	<p><b>Gasoline Storage Tank</b>                  Location: Building 99                  Unit ID: 99GASTK                  Capacity: 2000 gal</p>
II.A.39	<p><b>Diesel Storage Tank</b>                  Location: Building 99                  Unit ID: 99DSLTK                  Capacity: 2000 gal</p>
II.A.40	<p><b>Emergency Generator</b>                  Location: Building 101                  Unit ID: 101EG-01                  Capacity: 109 HP                  Applicability: Subpart ZZZZ</p>
II.A.41	<p><b>Misc. Natural Gas Combustion Sources</b>                  All-natural gas operated equipment with a capacity less than 5 MMBtu/hr.</p>
II.A.42	<p><b>Fugitive VOC and Chemical Emissions</b>                  Chemical storage areas                  Wastewater treatment                  Chemical container rinsing and decontamination                  Material warehouse                  Bulk gas plant                  Chillers and refrigeration systems</p>
II.A.43	<p><b>Misc. Operations</b>                  Ground maintenance operations                  Vehicle maintenance                  Road Maintenance                  Minor abrasive blasting                  Minor metal plating</p>

## SECTION II: SPECIAL PROVISIONS

The intent is to issue an air quality AO authorizing the project with the following recommended conditions and that failure to comply with any of the conditions may constitute a violation of the AO.

### **II.B        REQUIREMENTS AND LIMITATIONS**

<b>II.B.1</b>	<b>Site Wide Requirements</b>
II.B.1.a	<p>Visible emissions from the following emission points shall not exceed the following values:</p> <ul style="list-style-type: none"> <li>A. All baghouses - 10% opacity</li> <li>B. All packed bed scrubbers - 10% opacity</li> <li>C. All boilers - 10% opacity</li> <li>D. All diesel engines - 20% opacity</li> <li>E. All other points - 20% opacity.</li> </ul> <p>[R307-401-8]</p>
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401-8]
II.B.1.b	<p>The plant wide emissions of VOCs and HAPs from manufacturing and associated operations shall not exceed:</p> <ul style="list-style-type: none"> <li>A. 149.76 tons of VOCs per rolling 12-month period</li> <li>B. 22.42 tons of hydrogen fluoride per rolling 12-month period</li> <li>C. 6.36 tons of hydrogen chloride per rolling 12-month period</li> <li>D. 6.92 tons of chlorine per rolling 12-month period</li> <li>E. 4.01 tons of Hexane per rolling 12-month period.</li> </ul> <p>[R307-401-8]</p>
II.B.1.b.1	Compliance with the limitations shall be determined on a rolling 12-month total. No later than 45 days after the end of each month, a new 12-month total shall be calculated using data from the previous 12 months. [R307-401-8]

<p>II.B.1.b.2</p>	<p>VOC and HAP emissions from the non-combustion sources shall be determined by maintaining a record of VOC- and HAPs- containing materials used each month. The record shall include the following data for each item used:</p> <ul style="list-style-type: none"> <li>A. Name of the VOC- and HAPs- emitting material, such as paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.</li> <li>B. Weight and process where the material is used in pounds per gallon</li> <li>C. Percent by weight of all VOCs and HAPs for each individual material used. The recommended source of the information is from the manufacturer's material/chemical Safety Data Sheet (SDS). The owner/operator shall obtain SDS data from manufacturer and retain information on site.</li> <li>D. The amount of VOCs emitted from controlled manufacturing processes shall be calculated by the following procedure:   <math display="block">\text{VOC emissions} = (\text{VOC Process Chemical Usage}) \times (\text{Volatility Estimate}) \times (1 - \text{DRE}/100)</math> <p>Where:  DRE = Destruction Removal Efficiency of the VOC abatement systems = 98.5%</p> <p>Volatility Estimate = An estimate of VOC chemical volatility to be verified at least one time per year by subtracting the amount of VOC-containing materials collected as waste from the amount of VOC-containing materials used in the manufacturing processes.</p> </li> <li>E. The amount of HAPs emitted from controlled manufacturing process shall be calculated by the following procedure:   <p>For aqueous chemicals containing HAPs:  <math display="block">\text{HAP emissions} = (\text{HAP Process Chemical Usage}) \times (\text{Volatility Estimate}) \times (1 - \text{DRE}/100)</math> <p>Where:  DRE = Destruction Removal Efficiency of the acid scrubber system = 85% for HCl and 95% for HF</p> <p>Volatility Estimate = 1.0% for HF and 1.5% for HCl</p> <p>For gaseous chemicals containing HAPs or HAP precursors:  <math display="block">\text{HAP Emissions} = (\text{HAP or HAP Precursor Chemical Usage}) \times (\text{Amount Consumed in Process}) \times (\text{Decomp}) \times (1 - \text{DRE}/100)</math> <p>Where:  DRE = Destruction Removal Efficiency of the acid scrubber system = 85% for HCl, 95% for HF and 50% for Cl<sub>2</sub></p> <p>The factors "Amount Consumed in Process" and "Decomp" will be based on available data, actual measurements, mass balances, knowledge of the process, or engineering judgment.</p> </p></p></li> <li>F. The cumulative total of the 12 previous months VOC and HAPs emissions shall not exceed the amount specified above.</li> </ul> <p>[R307-401-8]</p>
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II.B.1.c	<p>TI shall submit a Title V application to obtain an operating permit within 12 months after the unit(s) making the source subject to the Title V permitting program are operational. At the time the source is subject to the Title V permitting program TI will be subject to 40 CFR 63, Subpart BBBBB (National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing) and 40 CFR 63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters). [R307-401-8]</p>
II.B.2	<p><b>Boiler Requirements</b></p>
II.B.2.a	<p>Natural gas used to fuel all the boilers at the Lehi Facility shall not exceed 4,064 MMscf per rolling 12-month period. [R307-401-8]</p>
II.B.2.a.1	<p>Compliance with the natural gas limit shall be determined on a rolling 12-month basis. No later than 45 days after the end of each month, a new 12-month total shall be calculated using data from the previous 12 months. Records of fuel combusted shall be kept for all periods when the plant is in operation. Fuel combusted by the boilers shall be determined from natural gas flow meters on each boiler. [R307-401-8]</p>
II.B.3	<p><b>Scrubber Requirements</b></p>
II.B.3.a	<p>Packed-bed acid scrubbers shall operate within the following limits:</p> <ul style="list-style-type: none"> <li>A. A design exhaust gas flow ranging up to a maximum of 44,000 acfm depending on the name-plate for the scrubber</li> <li>B. The scrubber liquid pH shall be greater than or equal to six. The pH shall be measured continuously. The scrubber liquid pH shall be recorded daily and maintained in a daily log.</li> </ul> <p>[R307-401-8]</p>
II.B.3.a.1	<p>The owner/operator shall install, calibrate, maintain, and operate a monitoring device for continuous measurements. Calibration shall be performed according to the manufacturer's instructions. [R307-401-8]</p>
II.B.3.b	<p>Packed-bed wet ammonia scrubbers shall operate within the following limits:</p> <ul style="list-style-type: none"> <li>A. Scrubbers shall have a design exhaust gas flow rate up to a maximum of 20,000 acfm</li> <li>B. The scrubber liquid pH shall be less than or equal to seven. The pH shall be measured continuously. The scrubber liquid pH shall be recorded daily and maintained in a daily log.</li> </ul> <p>[R307-401-8]</p>
II.B.3.b.1	<p>The owner/operator shall install, calibrate, maintain, and operate a monitoring device for the continuous measurements. Calibration shall be performed according to the manufacturer's instructions. [R307-401-8]</p>
II.B.4	<p><b>VOC Abatement Units Requirements</b></p>
II.B.4.a.1	<p>The VOC Abatement Systems (including thermal oxidizers with or without rotor concentrators) shall maintain a combustion chamber temperature greater than 1,250 degrees Fahrenheit. The exhaust gas flow shall not exceed 34,000 acfm depending on the nameplate for the unit. [R307-401-8]</p>

II.B.4.b	The combustion chamber temperature for the VOC abatement systems shall be continuously monitored with equipment located such that an inspector/operator can safely read the output at any time. The temperature reading shall be accurate to within 1% of full scale. [R307-401-8]
II.B.4.b.1	Daily records of readings shall be maintained. The instrument shall be inspected for functionality, replaced, or calibrated during scheduled maintenance per manufacturer's recommendations. [R307-401-8]
II.B.4.b.2	The sum of VOC abatement bypass hours (from the VOC abatement systems) shall not exceed 1358 hours per rolling 12-month period. [R307-401-8]
II.B.5	<b>Emergency Generator Requirements</b>
II.B.5.a	The owner/operator shall not operate each emergency engine on site for more than 100 hours per rolling 12-month period during non-emergency situations. There is no time limit on the use of the engines during emergencies. [R307-401-8]
II.B.5.a.1	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records documenting the operation of each emergency engine shall be kept in a log and shall include the following: <ul style="list-style-type: none"> <li>A. The date and time the emergency engine was used</li> <li>B. The duration of operation in hours</li> <li>C. The reason for emergency engine usage.</li> </ul> [R307-401-8]
II.B.5.a.2	To determine the duration of operation, the owner/operator shall install a non-resettable hour meter for each emergency engine. [R307-401-8]
II.B.5.b	The owner/operator shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in each emergency engine. [R307-401-8]
II.B.5.b.1	The owner/operator shall only combust diesel fuel that meets a sulfur content of 15 ppm or less. [R307-401-8]
II.B.5.b.2	To demonstrate compliance with the 15-ppm requirement, the owner/operator shall maintain records of diesel fuel purchase invoices or obtain certification of sulfur content from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate the diesel fuel requirements. [R307-401-8]
II.B.5.c	For emergency generator engines located in building 70, only two emergency generator engines can operate for testing and maintenance at any one time between 8:00 AM and 5:00 PM. [R307-401-8]

## **PERMIT HISTORY**

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Supersedes	AO DAQE-AN114080017-18 dated March 5, 2018
Is Derived From	NOI dated February 27, 2023
Incorporates	Additional Information dated March 3, 2023
Incorporates	Additional Information dated March 10, 2023
Incorporates	Additional Information dated March 17, 2023
Incorporates	Additional Information dated March 14, 2023

## ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by Environmental Protection Agency to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent - Title 40 of the Code of Federal Regulations Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO <sub>x</sub>	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM <sub>10</sub>	Particulate matter less than 10 microns in size
PM <sub>2.5</sub>	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO <sub>2</sub>	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds