

Utah State Implementation Plan

Emission Limits and Operating Practices

Section IX, Part H.31 and Part H.32

Adopted by the Air Quality Board September 12, 2023

H.31. General Requirements: Control Measures for Area and Point Sources, Emission Limits and Operating Practices, Ozone Requirements

- a. Except as otherwise outlined in individual conditions of this Subsection IX.H.31, the terms and conditions of this Subsection IX.H.31 shall apply to all sources subsequently addressed in Subsection IX.H.32. Should any inconsistencies exist between these two subsections, the source specific conditions listed in IX.H.32 shall take precedence.
- b. The definitions contained in R307-101-2, Definitions and R307-170-4, Definitions, apply to Section IX, Part H.
- c. The terms and conditions of R307-107-1 and R307-107-2 shall apply to all sources subsequently addressed in Subsection IX.H.32.
- d. Any information used to determine compliance shall be recorded for all periods when the source is in operation. All records required by IX.H.31 shall be kept for a minimum of five years. These records shall be made available to the Director upon request.
- e. All emission limitations listed in Subsections IX.H.32 shall apply at all times, unless otherwise specified in the source specific conditions listed in IX.H.32. Each source shall submit a report of any deviation from the applicable requirements of Subsection IX.H, including those attributable to upset conditions, the probable cause of such deviations, and any corrective actions or preventive measures taken. The report shall be submitted in accordance with the requirements of R307-170, Continuous Emission Monitoring Program. Deviations due to breakdowns shall be reported according to the breakdown provisions of R307-107.
- f. Stack Testing:
 - i. As applicable, stack testing to show compliance with the emission limitations in Subsection IX.H.32 shall be performed in accordance with the following:
 - A. Sample Location: The testing point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or the most recent version of the EPA-approved test method if approved by the Director.
 - B. Volumetric Flow Rate: 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing methods acceptable to the Director.
 - C. Nitrogen Oxides (NO_x): 40 CFR 60, Appendix A, Method 7E, or other EPA approved testing methods acceptable to the Director.
 - D. Calculations: To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors to give the results in the specified units of the emission limitation.
 - E. Notification: The Director shall be notified of the date, time, and place of stack testing no less than 30 days prior to conducting any required emission testing. A

source test protocol shall be submitted to DAQ when the testing notification is submitted to the Director.

- F. The source test protocol shall be approved by the Director prior to performing the tests. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
- G. Source Operation: The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three years.
- H. Testing Frequency: Test once every three years or sooner if directed by the Director.

g. Continuous Emission and Opacity Monitoring:

- i. For all continuous monitoring devices, the following shall apply:
 - A. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the owner/operator of an affected source shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in R307-170 and 40 CFR 60.13.
 - B. The monitoring system shall comply with all applicable sections of R307-170; 40 CFR 60.13; and 40 CFR 60, Appendix B – Performance Specifications.
 - C. For any hour in which fuel is combusted in the unit, the owner/operator of each unit shall calculate the hourly average NO_x concentration in lb/MMBtu.

H.32. Source-Specific Emission Limitations in Northern Wasatch Front Ozone Nonattainment Area

- a. Big West Oil LLC Refinery
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.b is required.
 - ii. Compliance with SIP Section IX Part H.11.g is required.
 - b. Chevron Products Company Salt Lake Refinery & Salt Lake Marketing Terminal
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.d is required.
 - ii. Compliance with SIP Section IX Part H.11.g is required.
 - c. Hexcel Corporation
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.f is required.
 - d. Hill Air Force Base
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.q is required.
 - e. Holly Frontier Sinclair Refinery & Holly Energy Partners Terminal
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.g is required.
 - ii. Compliance with SIP Section IX Part H.11.g is required.
 - f. Kennecott Utah Copper Bingham Canyon Mine & Copperton Concentrator
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.h is required.
 - g. Kennecott Utah Copper Smelter & Refinery
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.j is required.

- h. Lhoist North America of Arizona, Inc.
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.c is required.
- i. Pacificorp Energy Gadsby Power Plant
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.1 is required.
- j. Tesoro Refining & Marketing Company LLC Marathon Refinery & Tesoro Logistics Operations LLC Truck Loading Rack
 - a. Source-wide NOx and VOC:
 - i. Compliance with SIP Section IX Part H.12.m is required.
 - ii. Compliance with SIP Section IX Part H.11.g is required.
 - b. Cogeneration Turbines with Heat Recovery Steam Generation CG1 & CG2
 - i. Emissions to the atmosphere from the cogeneration turbines with heat recovery steam generation CG1 and CG2 shall not exceed the following concentration no later than October 1, 2028:
 1. Pollutant ppmdv (15% O₂ dry)
NO_x 5
 2. Compliance with the above emissions limits shall be determined by stack test as outlined in SIP Section IX Part H.31.f.
 3. Subsequent to initial compliance testing, stack testing is required every two years.
 4. The above emission limits apply to steady state operations when ambient temperature is between 0 °F and 120 °F, not including startup, shutdown, and minimum power load operations.
 - ii. Startup / Shutdown / Minimum Power Load Emission Minimization Plan
 1. Startup and shutdown events shall not exceed 614 hours per 12-month rolling period per turbine.
 2. Cumulative minimum power load operations shall not exceed 421 hours per 12-month rolling period per turbine.
 3. Startup begins when the fuel valves open and natural gas or fuel gas is supplied to the combustion turbines.

4. Startup ends when the following conditions are met:
 - a. The SCR inlet gas temperature is at least 575 °F, the ammonia block valve has opened and ammonia is being injected into the SCR, and the unit has reached an output of 50% operating load.
5. Shutdown begins when the unit load or output is reduced below 50% operating load with the intent of removing the unit from service.
6. Shutdown ends at the cessation of fuel input to the turbine combustor.
7. Minimum Power Load begins when the turbine generator is less than 50% operating load, the heat recovery steam generation unit is no longer supplemental fired, and the SCR remains operational with the intent to continue operation of the turbine generator at minimum power make.
8. Minimum Power Load ends when the turbine generator is greater than 50% operating load.
9. Turbine output (turbine load) shall be monitored and recorded on an hourly basis with an electrical meter.

c. Tank 321

- i. Tank 321 shall be equipped with secondary seals in compliance with 40 CFR 63 MACT Subpart CC no later than May 1, 2026.

d. Wastewater System API Separator Unit

- i. The wastewater system API separator unit shall be equipped with a closed vent system vented to carbon adsorption in compliance with 40 CFR 60 NSPS Subpart QQQ no later than December 31, 2025.

k. US Magnesium

a. Boron Plant Process Wastewater Ponds

- i. A steam stripper in series with a regenerative thermal oxidizer (RTO) shall be installed on the boron plant process wastewater ponds no later than October 1, 2024. Process emissions shall be routed through the operating RTO prior to being emitted to the atmosphere.
- ii. The RTO shall be operated with a minimum temperature of 1,400 deg F and the residence time shall be greater than or equal to 0.5 seconds.
 1. RTO temperatures shall be monitored with temperature sensing equipment that is capable of continuous measurement and readout of the combustion temperature. The readout shall be located such that an

inspector/operator can, at any time, safely read the output. The measurement need not be continuously recorded. All instruments shall be calibrated against a primary standard at least once every 180 days. The calibration procedure shall be in accordance with 40 CFR 60, Appendix A, Method 2, Paragraph 6.3 and 10.31, or use a type “K” thermocouple.

2. RTO volumetric flow rate shall be monitored with a flow meter in accordance with SIP Section IX Part H.31.f.i.B.
3. RTO temperature and volumetric flow rate shall be recorded on an hourly basis while operating.

l. Utah Municipal Power Agency West Valley Power Plant

a. Source-wide NO_x and VOC:

- i. Compliance with SIP Section IX Part H.12.o is required.

m. University of Utah

a. Source-wide NO_x and VOC:

- i. Compliance with SIP Section IX Part H.12.p is required.