



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of Environmental Quality

Tim Davis
Commissioner

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

Air Quality Board

Kim Frost, *Chair*
Michelle Bujdoso, *Vice-Chair*
Tim Davis
Seth Lyman
Colton Norman
Sonja Norton
Lorin Palmer
John Rasband
Dave Spence
Bryce C. Bird,
Executive Secretary

DAQ-023-26

UTAH AIR QUALITY BOARD MEETING TENTATIVE AGENDA

Wednesday, July 1, 2026 - 1:30 p.m.
195 North 1950 West, Room 1015
Salt Lake City, Utah 84116

Board members may be participating electronically. Interested persons can participate telephonically by dialing 1-475-299-8810 using access code: 449-801-632#, or via the Internet at meeting link:
meet.google.com/dpm-oqgm-nzk

- I. Call-to-Order and Roll Call.
- II. Date of the Next Air Quality Board Meeting: August 5, 2026
- III. Approval of the Minutes for the June 3, 2026, Board Meeting.
- IV. Propose for Public Comment: Repeal Rule R307-124. General Requirements: Conversion to Alternative Fuel Grant Program. Presented by Jazmine Lopez.
- V. Propose for Final Adoption: Amendment to Section R307-110-11 to incorporate Utah State Implementation Plan Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide; Section IX.B.11, SO₂ Maintenance Provisions for Salt Lake County Nonattainment Area and Section IX.B.12, SO₂ Maintenance Provisions for Tooele County Nonattainment Area. Presented by Tasnuva Islam.
- VI. Propose for Final Adoption: Amend Section R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits; Amend Utah State Implementation Plan, Section IX.H.12 and Section IX.H.13: Emission Limitations and Operating Practices. Presented by Ana Williams.
- VII. Propose for Public Comment: Amend Rules R307-840. Lead-Based Paint Program Purpose, Applicability, and Definitions; R307-841. Residential Property and Child-Occupied Facility Renovation; and R307-842. Lead-Based Paint Activities. Presented by Tamie Call.

VIII. Informational Items.

- A. Air Toxics. Presented by Leonard Wright.
- B. Compliance. Presented by Harold Burge, Rik Ombach, and Chad Gilgen.
- C. Monitoring. Presented by Bo Call.
- D. Other Items to be Brought Before the Board.
- E. Board Meeting Follow-up Items.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact LeAnn Johnson, Office of Human Resources at (385) 226-4881, TDD (801) 536-4284 or by email at leannjohnson@utah.gov.

ITEM 4



State of Utah

SPENCER J. COX
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Department of
Environmental Quality

Tim Davis
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DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-024-26

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Jazmine Lopez, Rules Coordinator

DATE: June 16, 2026

SUBJECT: PROPOSE FOR PUBLIC COMMENT: Repeal Rule R307-124. General Requirements: Conversion to Alternative Fuel Grant Program.

The Conversion to Alternative Fuel Grant Program Fund was created in Section 19-1-403.3 and allowed the air quality Director to provide a grant to persons who install alternative fuel conversion equipment on an eligible vehicle.

During the 2026 General Session, the Utah Legislature passed House Bill 545, Budgetary Modifications, which repeals the account providing funds for the Conversion to Alternative Fuel Grant Program as well as Section 19-2 Part 3, which described the definitions, conditions, and rulemaking provisions of the program.

Remaining funds for the Alternative Fuel Grant Program Fund were removed by the Utah Legislature in May 2025 and moved to the General Fund (House Bill 3, item 182 and Senate Bill 3, item 127). Because no additional funds are anticipated to be placed into the account and the program is being repealed by the Legislature, the rule is no longer necessary for agency operations.

Recommendation: Staff recommends the Board approve the repeal of R307-124, General Requirements: Conversion to Alternative Fuel Grant Program, for a 30-day public comment period.

State of Utah
Administrative Rule Analysis
Revised May 2026

NOTICE OF SUBSTANTIVE CHANGE

TYPE OF FILING: Repeal	Filing ID: OFFICE USE ONLY
Rule or section number:	R307-124
Date of previous publication (only for CPRs):	

1. Agency Information

Title catchline:	Environmental Quality, Air Quality
Building:	Multi-Agency State Office Building
Street address:	195 N 1950 W
City, state:	Salt Lake City, UT
Mailing address:	PO Box 144820
City, state and zip:	Salt Lake City, UT 84114-4820

2. Contact Persons

Name:	Phone:	Email:
Jazmine Lopez	801-536-4050	jazminelopez@utah.gov

Please address questions regarding information on this notice to the persons listed above.

3. General Information

A. Rule or section catchline:
R307-124. General Requirements: Conversion to Alternative Fuel Grant Program
B. Purpose of the new rule or reason for the change:
The Division of Air Quality is submitting this filing to repeal Rule R307-124 because the program it governs is no longer active. During the 2026 General Session, the Utah Legislature passed H.B. 545, Budgetary Modifications, which repeals the account providing funds for the Conversion to Alternative Fuel Grant Program as well as Section 19-2 Part 3 which described the definitions, conditions, and rulemaking provisions of the program. Remaining funds for the Alternative Fuel Grant Program Fund were removed by the Utah Legislature in May 2025 and moved to the General Fund (H.B. 3, item 182 and S.B. 3, item 127). Because no additional funds are anticipated to be placed into the account and the program is being repealed by the Legislature, the rule is no longer necessary for agency operations.
C. Summary of the new rule or change:
This filing is a full repeal of Rule R307-124. It eliminates the procedures and standards for administrative hearings and public comment opportunities previously associated with this specific program. By repealing this rule, the Division is updating the Utah Administrative Code to reflect that the program and its corresponding funding have been discontinued.

4. Legislative Action Information

A. Are any changes in this filing because of state legislative action?	Changes are because of legislative action.
B. If yes, any bill number and session:	HB 545 (2026 General Session)

5. Fiscal Information

Provide an estimate and written explanation of the aggregate anticipated cost or savings to:
A. State budget:
Remaining funds were removed by the Utah Legislature in May 2025. No additional funds are anticipated to be placed into the Alternative Fuel Grant Program Fund. Therefore, the repeal of this rule will not have an impact on state budgets.

B. Local governments:

Remaining funds were removed by the Utah Legislature in May 2025. No additional funds are anticipated to be placed into the Alternative Fuel Grant Program Fund. Therefore, the repeal of this rule will not have an impact on local governments.

C. Small businesses ("small business" means a business employing 1-49 persons):

Remaining funds were removed by the Utah Legislature in May 2025. No additional funds are anticipated to be placed into the Alternative Fuel Grant Program Fund. Therefore, the repeal of this rule will not have an impact on small businesses.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons):

Remaining funds were removed by the Utah Legislature in May 2025. No additional funds are anticipated to be placed into the Alternative Fuel Grant Program Fund. Therefore, the repeal of this rule will not have an impact on non-small businesses.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

Remaining funds were removed by the Utah Legislature in May 2025. No additional funds are anticipated to be placed into the Alternative Fuel Grant Program Fund. Therefore, the repeal of this rule will not have an impact on persons other than small businesses, non-small businesses, state, or local government entities.

F. Compliance costs for affected persons:

Remaining funds were removed by the Utah Legislature in May 2025. No additional funds are anticipated to be placed into the Alternative Fuel Grant Program Fund. Therefore, the repeal of this rule will not have a compliance cost impact on affected persons.

6. Regulatory Impact Summary Table

Enter the cost or savings in the relevant cell. If there is no cost or savings, enter, "\$0." If a cost or savings is inestimable, enter, "inestimable."

Fiscal Cost	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$0	\$0	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0	\$0	\$0
Total Fiscal Cost	\$0	\$0	\$0	\$0	\$0
Fiscal Benefits	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$0	\$0	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0	\$0	\$0
Total Fiscal Benefits	\$0	\$0	\$0	\$0	\$0
Net Fiscal Benefits	\$0	\$0	\$0	\$0	\$0

7. Regulatory Impact Analysis Approval

The Commissioner of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

8. Family Impact Information

A. The agency has considered this rule's impact on family health, stability, and formation: ☒

B. Summary of reasonable alternatives or modifications:

9. Citation Information

Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-2-104	Section 19-1-403.3	

10. Incorporation by Reference Information

Incorporation by Reference (if this rule incorporates more than two items by reference, please include additional tables):

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

B. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

11. Public Notice Information

The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until: 08/14/2026

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.):

Date:	Time (hh:mm AM/PM):	Place (physical address or URL):
08/12/2026	03:00 PM – 04:00 PM	A public hearing is set for August 12, 2026. Further details may be found below. The hearing will be cancelled should no request for one be made by August 10, 2026, at 10 AM MT. The final status of the public hearing will be posted on August 10, 2026, after 10 AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule. https://deq.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment Interested Persons can participate in person or electronically, via the internet. In Person: MASOB 195 N. 1950 W. Salt Lake City, UT, 84116, First Floor, Air Quality Board Room Virtual Attendance: Time zone: America/Denver Google Meet joining info: Video call link: https://meet.google.com/vro-ppdv-pbi Or dial: (US) +1 409-422-5239 PIN: 252 397 785#

To the agency: If more than one hearing is planned to take place, continue to add rows.

12. Effective Date Information

This rule change MAY become effective on: (NOTE: This is the date the agency anticipates making the filing effective. It is NOT the effective date)	10/07/2026
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13. Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 63G-3-302, 63G-3-303, and 63G-3-402. The office may return incomplete forms to the agency, possibly delaying publication in the <i>Utah State Bulletin</i> and delaying the first possible effective date.			
Agency head or designee and title:	Bryce C. Bird, Director, Division of Air Quality	Date:	06/04/2026

1 **R307. Environmental Quality, Air Quality.**

2 **~~[R307-124. General Requirements: Conversion to Alternative Fuel Grant Program.~~**

3 **~~R307-124 1. Authorization and Purpose.~~**

4 ~~—— (1) This rule is authorized by Section 19-2-304, which establishes the requirements, procedures,~~
5 ~~criteria, and definitions used to determine eligibility for the Conversion to Alternative Fuel Grant Program.~~

6 ~~—— (2) The procedures of this rule constitute the minimum requirements for the application and the~~
7 ~~awarding of funds that are designated for the Conversion to Alternative Fuel Grant Program.~~

8
9 **~~R307-124 2. Definitions.~~**

10 ~~—— The following additional definitions apply to R307-124:~~

11 ~~—— "Alternative fuel" means alternative fuel as defined in Subsection 19-2-302(2).~~

12 ~~—— "Clean fuel grant" means clean fuel grant as defined in Subsection 19-2-302(4).~~

13 ~~—— "Conversion equipment" means conversion equipment as defined in Subsection 19-2-302(5).~~

14 ~~—— "Cost" means cost as defined in 19-2-302(6).~~

15 ~~—— "Division" means the Division of Air Quality.~~

16 ~~—— "Eligible vehicle" means eligible vehicle as defined in Subsection 19-2-302(9).~~

17
18 **~~R307-124 3. Minimum Qualifications for an Applicant to Receive a Clean Fuel Grant.~~**

19 ~~—— (1) All applicants must be a registered business within the State of Utah and have a business license~~
20 ~~from the city or county in which they are located.~~

21 ~~—— (2) Applicants that are applying for a clean fuel grant for a conversion of an eligible vehicle to run~~
22 ~~on propane must meet the requirements of R710-6 Liquefied Petroleum Gas (LPG) Rules.~~

23
24 **~~R307-124 4. Minimum Qualifications for a Person that Installs Conversion Equipment on an Eligible~~**
25 **~~Vehicle.~~**

26 ~~—— The following are the minimum qualifications for a person that installs conversion equipment on~~
27 ~~an eligible vehicle:~~

28 ~~—— (1) A person that installs conversion equipment on an eligible vehicle to run on natural gas shall~~
29 ~~be:~~

30 ~~—— (a) a Canadian Standards Association (CSA) America Compressed Natural Gas (CNG) Fuel~~
31 ~~System Inspector; or~~

32 ~~—— (b) an Automotive Service Excellence (ASE) F1-certified technician.~~

33 ~~—— (2) A person that installs conversion equipment on an eligible vehicle to run on propane shall be~~
34 ~~certified under R710-6 LPG Rules.~~

35 ~~—— (3) A person that installs conversion equipment on an eligible vehicle to run on electricity shall be~~
36 ~~an ASE-certified technician.~~

37
38 **~~R307-124 5. Preliminary Approval Application Procedure.~~**

39 ~~—— To be considered for a clean fuel grant all applicants shall apply for preliminary approval on forms~~
40 ~~provided by the Division as required by Subsection 19-2-304(1)(e), and shall provide additional information~~
41 ~~as requested by the Division.~~

42 ~~—— (1) All applicants shall:~~

43 ~~—— (a) acknowledge that receiving preliminary approval does not guarantee reimbursement by the~~
44 ~~Division, and preliminarily approved projects shall meet all the eligibility requirements listed in R307-124~~
45 ~~before receiving the clean fuel grant for an eligible vehicle;~~

46 ~~—— (b) certify under penalty of perjury and subject to provisions of Utah Code Section 76-8-504~~
47 ~~("written false statement"), that all savings on the cost of conversion equipment in the amount of the clean~~
48 ~~fuel grant will be passed to the owner of the eligible vehicle, as required in Subsection 19-2-303(2)(b);~~

49 ~~—— (c) certify that the applicant is currently a registered business within the State of Utah and has a~~
50 ~~current business license; and~~

51 ~~—— (d) agree to the provisions found in Subsection 19-2-303(3).~~

~~_____ (2) Applicants applying for a clean fuel grant for a conversion of an eligible vehicle to run on natural gas shall provide the installer's ASE F-1 or CSA America certification number.~~

~~_____ (3) Applicants that are applying for a clean fuel grant for a conversion of an eligible vehicle to run on propane shall provide the applicant's dealer license number and the installer's LPG certification number required by R710-6 LPG Rules.~~

~~_____ (4) Applicants that are applying for a clean fuel grant for a conversion of an eligible vehicle to run on electricity shall provide the installer's ASE certification number.~~

~~_____ (5) Preliminary approval will encumber funds for up to 60 calendar days from the preliminary application's approval.~~

~~R307-124-6. Final Approval Procedure and Payment Process.~~

~~_____ Once an applicant has encumbered funds for a conversion, the applicant has up to 60 calendar days to obtain final approval from the Division. To obtain final approval, the applicant shall apply for final approval on forms provided by the Division, as required by Subsection 19-2-304(1)(e), and shall provide additional information as requested by the Division.~~

~~_____ (1) To demonstrate that a conversion of a vehicle to be fueled by natural gas is eligible, an applicant shall submit the following documentation to the Director:~~

~~_____ (a) A copy of the applicant's business registration from the Utah Department of Commerce and current business license from the city or county in which they are located;~~

~~_____ (b) a copy of the installer's CSA America or ASE F-1 certification;~~

~~_____ (c) an original or copy of the purchase order, customer invoice, or receipt that includes:~~

~~_____ (i) the name, address, and phone number of the applicant;~~

~~_____ (ii) the name of the installer;~~

~~_____ (iii) the vehicle identification number (VIN);~~

~~_____ (iv) the date of conversion; and~~

~~_____ (v) the cost of the conversion (itemizing the equipment, labor, and the clean fuel grant);~~

~~_____ (d)(i) a copy of the vehicle inspection report dated after the conversion, from an approved county I/M station, showing that the converted motor vehicle meets all county emissions requirements for all installed fuel systems if the motor vehicle is registered within a county with an I/M program; or~~

~~_____ (ii) in all other areas of the state, a signed statement by the installer that includes the VIN, the installer's ASE or CSA America certification number, and states that the eligible vehicle's conversion is functional;~~

~~_____ (e) a copy of the current Utah vehicle registration; and~~

~~_____ (f) a signed statement by the installer certifying that the conversion does not tamper with, circumvent, or otherwise affect the vehicle's on-board diagnostic system, in accordance with Utah Code 19-1-406(2).~~

~~_____ (2) To demonstrate that a conversion of a vehicle to be fueled by propane is eligible, an applicant shall submit the following documentation to the director:~~

~~_____ (a) A copy of the applicant's business registration from the Utah Department of Commerce and current business license from the city or county in which they are located;~~

~~_____ (b) a copy of the applicant's current dealer license required under R710-6;~~

~~_____ (c) a copy of the installer's current certification under R710-6;~~

~~_____ (d)(i) a copy of the vehicle inspection report, dated after the conversion, from an approved county I/M station, showing that the converted motor vehicle meets all county emissions requirements for all installed fuel systems, if the motor vehicle is registered within a county with an I/M program, or~~

~~_____ (ii) in all other areas of the state, a signed statement by an ASE-certified technician that includes the VIN, the technician's ASE certification number, and states that the conversion is functional;~~

~~_____ (e) Provide the EPA Certificate of Conformity, or equivalent documentation that is consistent with requirements outlined in 40 CFR Part 85 and 40 CFR Part 86, as published in Federal Register Volume 76 Page 19830 on April 8, 2011, or an executive order from the California Air Resources Board;~~

~~_____ (f) an original or copy of the purchase order, customer invoice, or receipt that includes:~~

~~_____ (i) the name, address, and phone number of the applicant;~~

- ~~(ii) the name of the installer;~~
~~(iii) the VIN;~~
~~(iv) the date of conversion; and~~
~~(v) the cost of the conversion (itemizing the equipment, labor, and the clean fuel grant); and~~
~~(g) a copy of the current Utah vehicle registration.~~
~~(3) To demonstrate that a conversion of a motor vehicle to be powered by electricity is eligible, an applicant shall submit the following documentation to the director:~~
~~(a) A copy of the applicant's business registration from the Utah Department of Commerce and current business license from the city or county in which they are located;~~
~~(b) a copy of the current Utah vehicle registration;~~
~~(c) an original or copy of the purchase order, customer invoice, or receipt that includes:~~
~~(i) the name, address, and phone number of the applicant;~~
~~(ii) the name of the installer;~~
~~(iii) the VIN;~~
~~(iv) the date of conversion; and~~
~~(v) the cost of the conversion (itemizing the equipment, labor, and the clean fuel grant);~~
~~(d) If the converted eligible vehicle does not have any auxiliary sources of combustion emissions, then the applicant shall submit a signed statement by an ASE-certified technician that includes the VIN, the technician's ASE certification number, and states that the conversion is functional and that the converted motor vehicle does not have any auxiliary source of combustion emissions.~~
~~(e) If the converted eligible vehicle has an auxiliary source of combustion emissions, the applicant shall submit:~~
~~(i) a copy of the vehicle inspection report after the conversion, from an approved county I/M station, showing that the converted motor vehicle meets all county emissions requirements for all installed fuel systems, if the motor vehicle is registered within a county with an I/M program; or~~
~~(ii) in all other areas of the state, a signed statement by an ASE-certified technician that includes the VIN, the technician's ASE certification number, and states that the conversion is functional; and~~
~~(iii) provide the EPA Certificate of Conformity, or equivalent documentation that is consistent with requirements outlined in 40 CFR Part 85 and 40 CFR Part 86, as published in Federal Register Volume 76 Page 19830 on April 8, 2011, or an executive order from the California Air Resources Board.~~
~~(4) All applicants shall complete and submit an IRS form W-9 to the Division.~~
~~(5) Approved applications shall continue to comply with the provisions of this rule.~~

~~R307-124-7. Grant Program Limitations.~~

- ~~Grant applications shall not be approved if:~~
~~(1) Awarding a grant to an applicant would result in the Department's inability to fulfill its obligations under this program or this rule;~~
~~(2) The applicant does not meet the approval requirements of Section R307-124-5;~~
~~(3) The fund balance is zero; or~~
~~(4) Awarding a grant to an applicant would result in the fund balance being less than zero.~~

~~R307-124-8. Review.~~

~~The Division reserves the right to request supplemental information it may deem necessary from an applicant, in order to effectively administer the program and this rule.~~

~~KEY: air pollution, alternative fuels, tax credits, motor vehicles~~

~~Date of Last Change: September 8, 2016~~

~~Notice of Continuation: August 10, 2021~~

~~Authorizing, and Implemented or Interpreted Law: 19-2-301 through 305; 19-1-403.3]~~

ITEM 5



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of Environmental Quality

Tim Davis
Commissioner

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-025-26

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

THROUGH: Jazmine Lopez, Rules Coordinator

FROM: Tasnuva Islam, Environmental Scientist

DATE: June 16, 2026

SUBJECT: PROPOSE FOR FINAL ADOPTION: Amendment to Section R307-110-11 to incorporate Utah State Implementation Plan Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide; Section IX.B.11, SO₂ Maintenance Provisions for Salt Lake County Nonattainment Area and Section IX.B.12, SO₂ Maintenance Provisions for Tooele County Nonattainment Area.

On April 1, 2026, the Utah Air Quality Board proposed for public comment amendments to Section R307-110-11 to incorporate the Utah State Implementation Plan (SIP) Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide. Specifically, the amendments incorporate Section IX.B.11, SO₂ Maintenance Provisions for the Salt Lake County Nonattainment Area, and Section IX.B.12, SO₂ Maintenance Provisions for the Tooele County Nonattainment Area.

These SIP revisions are submitted pursuant to Sections 107(d)(3)(E) and 175A of the Clean Air Act (CAA) and are intended to support redesignation of these areas from nonattainment to attainment for the 1971 SO₂ National Ambient Air Quality Standards (NAAQS).

Salt Lake County and the eastern portion of Tooele County were originally designated nonattainment in 1978 due to violations of the 1971 SO₂ standards, primarily associated with emissions from the Kennecott copper smelter. Since that time, federally enforceable control measures beginning with the 1981 SO₂ SIP and strengthened by subsequent SIP revisions and related PM₁₀ controls have resulted in substantial and permanent emissions reductions. The area has not recorded a violation of the 1971 SO₂ NAAQS since 1981.

The maintenance plans demonstrate that the areas have attained the 1971 primary (annual and 24-hour) and secondary (3-hour) SO₂ standards based on decades of quality-assured monitoring data. Continued attainment is supported by permanent and enforceable emission reductions, including modernization of smelting operations, installation of sulfur capture technologies, enforceable emission limitations, and fuel sulfur restrictions. Dispersion modeling conducted using EPA-approved AERMOD methodologies, along with emissions inventory projections, indicates that compliance will be maintained through the maintenance period ending in 2040.

The maintenance plans include all elements required under CAA Section 175A, including an attainment emissions inventory, projected future-year inventories, verification of continued monitoring, commitments for future plan revisions, continued implementation of control measures, and contingency provisions to address any potential future exceedances.

The public comment period was open from April 15, 2026, through May 15, 2026. No comments were received. A public hearing was scheduled for May 5, 2026, but was cancelled because a hearing was not requested by the due date.

Recommendation: Staff recommend the Board approve amendments to Section R307-110-11 to incorporate Utah State Implementation Plan Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide; Section IX.B.11, SO₂ Maintenance Provisions for Salt Lake County Nonattainment Area and Section IX.B.12, SO₂ Maintenance Provisions for Tooele County Nonattainment Area for final adoption.

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF SUBSTANTIVE CHANGE

TYPE OF FILING: Amendment

Rule or section number:

R307-110-11

Filing ID: OFFICE USE ONLY

Date of previous publication (only for CPRs):

Agency Information

1. Title catchline:	Environmental Quality, Air Quality	
Building:	Multi-Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144820	
City, state and zip:	Salt Lake City, UT 84114-4820	
Contact persons:		
Name:	Phone:	Email:
Tasnuva Islam	801-536-0076	tislam@utah.gov
Jazmine Lopez	801-536-4050	jazminelopez@utah.gov

Please address questions regarding information on this notice to the persons listed above.

General Information

2. Rule or section catchline:	
R307-110-11. Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide.	
3. Are any changes in this filing because of state legislative action?	Changes are not because of legislative action.
If yes, any bill number and session:	
4. Purpose of the new rule or reason for the change:	
The Utah Air Quality Board has proposed for public comment amendments to Utah State Implementation Plan (SIP), Section IX, Part B. The amendments to the SIP add plans that demonstrate maintenance of all three 1971 SO ₂ National Ambient Air Quality Standards (NAAQS) through the year 2040 for the Salt Lake County Nonattainment Area (SLC NAA) and Tooele County Nonattainment Area (TC NAA). Section R307-110-11 incorporates Section IX, Part B into the rule, and must be amended to change the Board adoption date to the anticipated date of the amended plan.	
5. Summary of the new rule or change:	
This rule amendment incorporates a SIP revision establishing maintenance plans for the 1971 SO ₂ NAAQS for the SLC NAA and the TC NAA. The maintenance plans demonstrate continued attainment of the standard in the applicable area and fulfil the requirements of Section 175A of the Clean Air Act. If EPA approves the plans, the nonattainment areas will be redesignated to attainment status. Section R307-110-11 Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide is being amended to change the Board adoption date to the anticipated date of the amended plan.	

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:
A. State budget:
This amendment is not expected to have any fiscal impact on the state budget because the plan being incorporated into the rule shows how already existing regulations have led to attainment of the 1971 SO ₂ air quality standards. This amendment does not alter current regulations or practices.
B. Local governments:
This amendment is not expected to have any fiscal impact on local governments because this amendment does not apply to local governments.
C. Small businesses ("small business" means a business employing 1-49 persons):

This amendment is not expected to have any fiscal impact on small businesses because this amendment does not apply to small businesses.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons):

This amendment is not expected to have any fiscal impact on non-small businesses because this amendment does not apply to non-small businesses.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

This amendment is not expected to have any fiscal impact on persons other than small businesses, non-small businesses, state, or local government entities because this amendment does not apply to persons other than small businesses, non-small businesses, state, or local government entities.

F. Compliance costs for affected persons:

This amendment will not have compliance costs for affected persons because the plan being incorporated into the rule shows how already existing regulations have led to attainment of the 1971 SO₂ air quality standards. This amendment does not alter current regulations or practices.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table					
Fiscal Cost	FY2026	FY2027	FY2028	FY2029	FY2030
State Budget	\$0	\$0	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0	\$0	\$0
Total Fiscal Cost	\$0	\$0	\$0	\$0	\$0
Fiscal Benefits	FY2026	FY2027	FY2028	FY2029	FY2030
State Budget	\$0	\$0	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0	\$0	\$0
Total Fiscal Benefits	\$0	\$0	\$0	\$0	\$0
Net Fiscal Benefits	\$0	\$0	\$0	\$0	\$0

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-2-104	42 U.S.C 85 Part D Section 7505a	

Incorporation by Reference Information

8. Incorporation by Reference (if this rule incorporates more than two items by reference, please include additional tables):

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	Utah State Implementation Plan Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide.
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Publisher	Division of Air Quality, Utah Department of Environmental Quality
Issue Date	July 1, 2026
Issue or Version	

B. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until: 05/15/2026

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.):

Date:	Time (hh:mm AM/PM):	Place (physical address or URL):
05/05/2026	03:00PM - 04:00PM	A public hearing is set for May 5, 2026. Further details may be found below. The hearing will be cancelled should no request for one be made by May 1, 2026, at 10 AM MT. The final status of the public hearing will be posted on May 1, 2026, after 10 AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule. https://deq.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment Interested Persons can participate in person or electronically, via the internet. In Person: MASOB 195 N. 1950 W. Salt Lake City, UT, 84116, First Floor, Air Quality Board Room Virtual Attendance: Time zone: America/Denver Google Meet joining info: Video call link: https://meet.google.com/amj-xjne-yqq Or dial: (US) +1 406-616-2412 PIN: 335 196 879#

To the agency: If more than one hearing is planned to take place, continue to add rows.

10. This rule change MAY become effective on: 07/01/2026

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.

Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 63G-3-302, 63G-3-303, and 63G-3-402. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin* and delaying the first possible effective date.

Agency head or designee and title:	Bryce C. Bird, Director, Division of Air Quality	Date:	03/12/2026
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R307. Environmental Quality, Air Quality.

R307-110. General Requirements: State Implementation Plan.

R307-110-11. Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide.

The Utah State Implementation Plan, Section IX, Control Measures for Area and Point Sources, Part B, Sulfur Dioxide, as most recently amended by the Utah Air Quality Board on ~~January 5, 2005~~ **July 1, 2026**, pursuant to Section 19-2-104, is hereby incorporated by reference and made a part of these rules.

KEY: air pollution, PM10, PM2.5, ozone

Date of Last Change: ~~July 2, 2025~~ **2026**

Notice of Continuation: December 1, 2021

Authorizing, and Implemented or Interpreted Law: 19-2-104

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4
5 UTAH STATE IMPLEMENTATION PLAN

6 **SO₂ Maintenance**
7 **Provisions for the Salt Lake**
8 **County, UT SO₂ Nonattainment Area**
9

10 SECTION IX.B.11
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Section IX.B.11 SO₂ Maintenance Provisions for Salt Lake County

IX.B.11.a Introduction

In 1978, the U.S. Environmental Protection Agency (EPA) designated three areas in Utah as nonattainment for the 1971 National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO₂). At that time, the EPA had established three SO₂ standards: a 24-hour primary standard, an annual primary standard, and a 3-hour secondary standard. The three nonattainment areas were:

- Cedar City Nonattainment Area;
- Salt Lake County Nonattainment Area (SLC NAA); and
- Tooele County Nonattainment Area (TC NAA)¹

The EPA approved Utah's SO₂ control strategy for Cedar City on February 19, 1980. However, the strategy for SLC NAA and TC NAA was disapproved. In 1981, Utah submitted a revised SO₂ State Implementation Plan (SIP) for the two counties, which included a redefined nonattainment boundary covering all of Salt Lake County and only the eastern portion of Tooele County above 5,600 feet in elevation.

The EPA granted interim approval of this SIP in 1985, pending resolution of issues related to Good Engineering Practice (GEP) stack height requirements. To address this, Utah submitted its GEP SIP in 1986, followed by additional submittals in 1986, 1987, and 1988. The EPA proposed approval of the GEP SIP in 1988, but final approval was delayed due to public comments, particularly concerning land ownership on elevated terrain, which affected the GEP stack height demonstration.

With the 1990 amendments to the Clean Air Act (CAA), any nonattainment area lacking a fully approved SIP was automatically redesignated as nonattainment and subject to a SIP call. Because the Utah SIP had never received full approval, the State was once again required to submit revised SIPs addressing both:

- GEP stack height; and
- SO₂ control measures.

All other areas in Utah, including Cedar City, were found to have ambient air quality that was "better than the national standards" and thus did not require further SIP revisions. There have been no violations of either the primary or secondary NAAQS for SO₂ in the Utah nonattainment areas since 1981. The lack of monitored violations is the result of permanent and enforceable

¹ A portion of the county is located within the area and is designated nonattainment
<https://www3.epa.gov/airquality/greenbook/sncs.html#UT>

1 emission reductions at the emissions points that were responsible for the violations which led to
2 the original nonattainment status.

3
4 Based on this long-standing compliance and in accordance with the CAA Section 107(d)(3)(D),
5 Utah submitted the required SIP revisions in 1991 (for GEP stack height) and 1992 (for SO₂
6 control). The EPA approved both in 1994, bringing Salt Lake County and Tooele County into
7 compliance with federal requirements.

8
9 Salt Lake County and Tooele County have attained the 1971 SO₂ standards. As a result, this
10 section has been added to the SIP to demonstrate that the area is eligible for redesignation to
11 attainment. Under Section 107(d)(3)(E) of the CAA, a nonattainment area is eligible for
12 redesignation when the area has met the following requirements: (1) the area has attained the
13 NAAQS standard; (2) the area has an EPA-approved attainment SIP; (3) the improvement in air
14 quality is due to permanent and enforceable reductions in emissions resulting from
15 implementation of the SIP; (4) the State has met the SIP requirements of Section 110 and Part D
16 of the CAA; and (5) the area has an EPA-approved Maintenance Plan.

17
18 As demonstrated in Subsection IX.B.11.c, the nonattainment area has satisfied the redesignation
19 requirements of Section 107 and is eligible for redesignation pending the EPA's approval of the
20 Salt Lake County Maintenance Plan. The maintenance plan is included in Subsection IX.B.11.d
21 and is written in compliance with Section 175A of the CAA. The maintenance plan demonstrates
22 that the nonattainment area will continue to maintain the 1971 NAAQS through 2040. The
23 maintenance plan also includes contingency measures to assure that the State will promptly
24 correct any violation of the standard that may occur after the redesignation. In addition to EPA's
25 approval of the maintenance plan, the State is requesting that the SLC NAA be redesignated to
26 attainment for the 1971 SO₂ NAAQS.

27 IX.B.11.b History of Nonattainment Area Designation

28 Since the SO₂ nonattainment designations occurred at the same time and involved similar
29 regulatory decisions and control strategies by the EPA and the State, Section IX.B.11.b includes
30 discussion of all three areas to provide historical context and a complete description of Utah's
31 SO₂ SIP development. Although this maintenance plan applies specifically to the SLC NAA, the
32 Tooele County and Cedar City areas are referenced because they were addressed concurrently in
33 the State's early SO₂ SIP submittals.

1 i) The 1981 SO₂ SIP Submittal

2 In the Federal Register dated March 3, 1978, there were three areas in Utah that were designated
3 as nonattainment for the 1971 SO₂ NAAQS.² These three areas include:

- 4 • SLC NAA;
- 5 • TC NAA; and
- 6 • Cedar City.

7 All three areas were violating the primary 24-hour SO₂ standard of 0.14 parts per million (ppm)
8 not to be exceeded more than once per year, in addition to the secondary 3-hour standard of 0.5
9 ppm not to be exceeded more than once per year. There have not been any recorded violations of
10 the primary annual standard of 0.03 ppm. The designation of Cedar City as a nonattainment area
11 for SO₂, made by the State, was based on ambient air quality data collected at the State's
12 monitoring station on the campus of Southern Utah State College (now Southern Utah State
13 University).³ The designation recommendations of Salt Lake and Tooele counties made by the
14 State were overrode by the EPA, based on data collected at the State's ambient air monitoring
15 stations in Magna and Tooele.²

16
17 The old reverberatory furnace system at the Kennecott Copper Corporation's Utah Smelter
18 (Kennecott) was still in operation at that time. On March 13, 1981, the EPA revised Tooele
19 County's nonattainment designation to include only areas above 5,600 feet in elevation. The
20 primary focus of the 1981 SIP for Salt Lake and Tooele counties, supported by both the State and
21 the EPA, was to control emissions from Kennecott's operations.

22
23 On August 17, 1981, the Governor submitted a revision to the SIP to address the attainment of
24 the SO₂ NAAQS in Salt Lake County and Tooele County. Additional supporting documents
25 were submitted by the State on December 7, 1981, and January 25, 1983. The primary control
26 measure in the SIP for Salt Lake and Tooele counties was the construction of a new smelter at
27 Kennecott to replace the old reverberatory furnace system. The only control measure in the SIP
28 for Cedar City was enforcement of the existing limitation for sulfur content in fuel oil used at
29 Southern Utah State College. In December of 1983, Cedar City was redesignated as an
30 attainment area for SO₂.⁴

² Utah SO₂, Salt Lake and Tooele counties and Cedar City do not meet primary and secondary SO₂ standards,
https://archives.federalregister.gov/issue_slice/1978/3/3/8907-9023.pdf#page=58, See Page 9039.

³ Utah State Implementation Plan, August 16, 1981, Section 9, Part B, Figure 9.B.1.

⁴ Utah Air Conservation Rule R307-1-4.2.

1 On February 7, 1983, the Governor formally requested that the SLC NAA and TC NAA be
2 redesignated to attainment. However, on March 23, 1984, the EPA proposed to postpone any
3 action on the redesignation request until several outstanding issues were resolved.⁵

4 ii) Control Strategies for Nonattainment Area

5 A careful review of the emissions inventory and diffusion modeling that was coordinated by the
6 State indicated that the emissions from one point source, Kennecott Copper Corporation, resulted
7 in violations of the 1971 NAAQS for SO₂ which were observed in both counties.
8

9 Ambient measurements taken by the Department of Health in Salt Lake County indicated that the
10 NAAQS were violated only at the site in Magna, Utah. Based on this information, the Magna
11 monitoring site was used as the control point for development of the control plan. No violations
12 of the 1971 NAAQS have been observed at any of the monitoring stations since 1980. As part of
13 the 1981 SIP,⁶ the State adopted revised emission limitations and control requirements for the
14 following Kennecott operations:

- 15 • Smelter Main Stack;
- 16 • Fugitive Emissions;
- 17 • Power Plant Boilers;
- 18 • Molybdenite Heat Treaters; and
- 19 • Refinery.

20 The power plant boilers, heat treaters, and refinery were required to meet constant emission
21 limitations. The fugitive emissions were controlled by application of “best engineering
22 techniques.”

23 The main stack, which accounted for 88% of the total emissions, was controlled by a variable
24 emission limitation. The main stack limits contained the following key elements:

- 25 • annual average emission limit of 18,200 pounds per hour (lbs/hr);
- 26 • cumulative occurrence limits at specified frequencies and 3-hour running average
27 emission rates; and
- 28 • a maximum 3-hour emission limit of 98,400 lbs/hr never to be exceeded.

29 These emission limitations were developed using the multipoint rollback (MPR) approach and
30 represented a 10% reduction from the allowable emissions under the previous state regulation. A
31 federally promulgated regulation specific to Kennecott had established a 6,030 lbs/hr emission
32 limit for the main stack and required the implementation of reasonably achievable control

⁵ Approval and Promulgation of State Implementation Plans Designation of Areas for Air Quality Planning Purposes, Utah Sulfur Dioxide Plan, March 23, 1984, 49 FR 10946.

⁶ Utah SO₂ SIP, <https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=612086&dbid=0>.

1 technology (RACT) for fugitive emissions.⁷ However, in response to petitions for
2 reconsideration and legal challenges to that regulation, the EPA agreed in 1977 not to enforce
3 these limits.

4 iii) State Attainment Demonstration

5 The 1981 SO₂ SIP demonstration only addressed the attainment of NAAQS in the lower
6 elevations and did not address the elevated terrain. Instead, the State took the position that these
7 higher elevation areas did not constitute “ambient air” under the definition provided in 40 CFR
8 50.1(e), as they are not accessible to the general public.⁸

9
10 The State employed several methods in developing the proposed emission limitations and in
11 demonstrating that the SIP would provide a reasonable probability of attaining the NAAQS in
12 lower elevation areas. These methods included:

- 13 • analysis of measured violations in Magna, Utah, and at the Great Salt Lake Beach,
14 including identification of the causes of those violations;
- 15 • calibrated dispersion modeling estimates to predict SO₂ concentrations in the lower
16 elevations before and after implementation of the SIP;
- 17 • qualitative analysis of the impacts of fugitive emissions at the Great Salt Lake Beach and
18 the improvements expected as a result of the SIP; and
- 19 • MPR for the development of the variable emission limitations at the main stack.

20 EPA's Review of State Attainment Demonstration

21 (1) Elevated Terrain

22 Historically, the EPA has applied the regulatory definition of “ambient air” in such a way that if
23 public access were precluded such as by a fence or other physical barrier, then air over property
24 owned or controlled by a source is not considered “ambient air” and therefore not subject to
25 NAAQS. This policy is reflected in the November 26, 1975, EPA rulemaking affecting the
26 Kennecott main stack emission limits.⁹ The EPA proposed that documentation and representation
27 made by Kennecott adequately demonstrate that the company had taken reasonable and effective
28 precautions to limit general public access to company property, and thus the company property
29 in the elevated terrain is not “ambient air.” Public comments on EPA’s final rulemaking were
30 pending and under review.

⁷ Standards of Performance for Primary Copper Smelters, 42 FR 37937, July 25, 1977, and 40 CFR 60.160.
www.govinfo.gov/content/pkg/FR-1977-07-25/pdf/FR-1977-07-25.pdf.

⁸ Definitions: 40 CFR 50.1(e), [www.ecfr.gov/current/title-40/part-50/section-50.1#p-50.1\(e\)](http://www.ecfr.gov/current/title-40/part-50/section-50.1#p-50.1(e)).

⁹ Rules and Regulations 40 FR 54788, www.govinfo.gov/content/pkg/FR-1975-11-26/pdf/FR-1975-11-26.pdf.

(2) SO₂ Control Strategy for Main Stack

The strategy developed by the State for the main stack was derived from a general approach known as MPR. The MPR approach is designed to accommodate the highly variable SO₂ emissions produced by smelters and produces a cumulative frequency distribution of allowed emission rates. Emission limits are developed by cumulative distribution of observed emission rates and air quality measurements over an extended period of time, usually a year or more. The SIP includes specific emission limitations for the low-level sources as well as a multipoint limit for the main stack. The mission limits included in the 1981 SO₂ SIP were:

Table 1: 1981 SO₂ SIP Limits

Source	Emission Limit
Power Plant Boilers	0.48 lbs/MMBtu
Molybdenite Heat Treaters	139 lbs/hr
Refinery	117 lbs/hr
Fugitive Emissions	RACT
Main Stack - Annual Average	18,200 lbs/hr
Main Stack - 3 Hour Maximum	98,400 lbs/hr

In the State's attainment demonstration, the design value (DV) for the MPR was a calculated 3-hour concentration of 0.46 ppm in lower elevations as compared to the 1971 NAAQS of 0.50 ppm. As the DV is less than the standard, this allowed an 8.7% increase in allowable emissions from the base period. The result was an allowable annual average stack emission rate calculated to be 18,200 lbs/hr.¹⁰ During the technical review of the control strategy, the EPA identified the following technical deficiencies and enforcement issues:

To develop the MPR, the State used a supplemental control system (SCS) during the period of record, which violates the basic principle of the MPR equation that emissions and dispersion are independent. At this time, no other acceptable alternate data was available to develop emission limits for the Kennecott smelter.

- In DV selection, the State used the second highest of the discrete 3-hour average instead of the highest one-per-year maximum concentrations.
- The State-proposed regulations required continuous emission monitors (CEM) to operate at least 95% of the time in each one-month period. However, the regulation did not limit the duration of a single breakdown.¹¹

¹⁰ Utah State Implementation Plan, Section 9 Part B.3.c., Development of the 3-hour Tall Stack Emission Limit, May 15, 1992.

¹¹ Utah State Implementation Plan, Section 4.3.2., Regulation for Control of Main Stack SO₂ Emissions (Kennecott Mineral Company), August 16, 1981.

- The State-proposed regulations did not outline the procedure to follow when determining which CEM data is 20% or more in error. The regulation also gave the smelter the option to delete or retain such data.¹²

The EPA conducted additional analysis on the development of MPR and the selection of DV and concluded that the strategy for the Kennecott main stack should not jeopardize attainment and maintenance of the SO₂ NAAQS in the lower elevations.¹³

Per the enforcement issues, the EPA proposed revisions of the rules to include provisions both limiting individual monitor downtime and providing incentives to strive for 100% CEM data recovery. Additionally, the EPA proposed to incorporate 40 CFR Part 60, Appendix B Part 2 of the quality assurance requirements.¹⁴ The SIP was conditionally approved given the above-mentioned issues were addressed prior to final rulemaking. At this stage, public comments on EPA's final rulemaking were still under review.

(3) Low-Level Source Issues

During the winter of 1979 and 1980, there were five measured violations of the 24-hour standard of 0.14 ppm in Magna. In addition, during the winter of 1981 there were two measured violations of the same standard at the Beach monitor located near the smelter. The highest concentration at the site was 0.19 ppm. As a result of these observed violations, the State's control strategy was to demonstrate attainment at these receptors. Several studies conducted in the area attributed the violations to low-level fixed stack sources and fugitive emissions. The low-level emissions inventory for the non-fugitive sources from this time period are shown below:

Table 2: Emissions inventory of non-fugitive sources

Source	Emissions (lbs/hr)	
	1979	1983
Magna Heat Treater	454	136
Arthur Heat Treater	454	136
Refinery	354	103
Boiler	714	828
Boilers	375	401
Total	2,351	1,604

¹² Utah State Implementation Plan, Section 4.3.2., Regulation for Control of Main Stack SO₂ Emissions (Kennecott Mineral Company), August 16, 1981.

¹³ Approval and Promulgation of State Implementation Plans, 40 CFR Part 52 and 40 CFR Part 81.

¹⁴ Approval and Promulgation of State Implementation Plans, 40 CFR Part 52 and 40 CFR Part 81.

1 The State required a 70% emission reduction from the smelter's low-level sources and required
2 improved fugitive emission capture practices at the smelter. The effectiveness of the control
3 strategy was demonstrated via modeling efforts by the State. The modeling estimate predicted
4 attainment of the SO₂ standards by December 1982. EPA conducted an independent modeling
5 effort to verify the State's findings and determined that the results agreed with the State's result
6 at Magna, but the Beach monitor showed some variability.

7
8 Since the fugitive emissions and the reduction expected by December 1982 could not be reliably
9 quantified, the State submitted information on January 25, 1983, which described the control
10 practices on fugitive emissions implemented at the smelter since the 1981 violations and
11 included a qualitative analysis of the expected effects of those practices. The State's conclusions
12 regarding attainment of the standards in the vicinity have been substantiated by measured data
13 since 1981. Based on this information, the EPA ruled in favor of the State's control strategy for
14 the low-level sources to attain and maintain the SO₂ standards in lower elevations.

15 (4) Stack Height Credit

16 Under the 1982 stack height regulations,¹⁵ stack height credit can be calculated in the following
17 three methods¹⁶: (1) de minimis height (stack less than 65 meters); (2) mathematical formulas; or
18 (3) physical demonstrations. The State calculated its GEP stack height according to a fluid
19 modeling demonstration. The demonstration did not fully comply with EPA's 1982 regulations¹⁷
20 because no specific percentage of increased concentrations was measured. However, based on
21 the best engineering judgment of EPA technical staff, the source apparently could demonstrate at
22 least a 40% increase in concentrations using the approach in the 1982 regulations. Due to the
23 GEP regulation being under litigation and its uncertain status¹⁸, EPA concluded that it would be
24 futile to require the source to perform additional fluid modeling demonstrations based on the
25 1982 regulations.

26 iv) 1985 Interim SO₂ SIP Approval

27 On February 20, 1985, EPA proposed interim approval of the 1981 SIP on the condition that the
28 State of Utah agreed to satisfy all procedural and substantive requirements of the stack height
29 regulations once any further regulations were promulgated or the existing regulations were

¹⁵ Stack height Regulations, February 8, 1982, 47 FR 5864, www.govinfo.gov/content/pkg/FR-1982-02-08/pdf/FR-1982-02-08.pdf.

¹⁶ Method of Determining GEP Stack Height, February 8, 1982, 47 FR 5865, www.govinfo.gov/content/pkg/FR-1982-02-08/pdf/FR-1982-02-08.pdf.

¹⁷ Stack height Regulations, February 8, 1982, 47 FR 5864, www.govinfo.gov/content/pkg/FR-1982-02-08/pdf/FR-1982-02-08.pdf.

¹⁸ Sierra Club vs. EPA, 719 F.2d 436, www.casemine.com/judgement/us/5914c378add7b049347c6b6f.

upheld on appeal.¹⁹ For the final approval of the SIP, the State was required to promulgate additional SIP provisions committing to the following actions:

- In the event EPA promulgates new regulations with requirements different from those in the 1982 regulations, the State of Utah will, within nine months of such promulgation, submit a demonstration of the GEP stack height under the new regulations and, based on that demonstration, submit either: (a) a demonstration that the SIP adequately assures attainment when that height is taken into account; or (b) a SIP revision demonstrating attainment.
- In the event the 1982 regulations are upheld on appeal, the State will submit a new fluid modeling study meeting the requirements of those regulations within nine months of the decision.

v) 1986 GEP Stack Height SIP Submittal

The Utah GEP Stack Height SIP was submitted by the Governor in a letter dated May 2, 1986.²⁰ The submittal included regulations to address:

- GEP stack height credit and dispersion techniques;
- a new Section 17 of the SIP that listed all existing stacks in Utah greater than 65 meters; and
- a technical support document for Section 17 including the Kennecott Magna stack analysis.

The Kennecott stack height credit was a significant component of the Utah SO₂ SIP emission limits conditionally approved on February 20, 1985.

vi) Applicability of the NSPS Regulation

The federal New Source Performance Standards (NSPS) regulation for primary copper smelters (40 CFR 60 NSPS Subpart P) applies to any such facility that commences construction or modification after October 16, 1974.^{21, 22} Modification generally means any physical or operational changes which results in an increase in the emission rate to the atmosphere.

The Kennecott smelter expansion/modification began in the early 1970's, with a commitment to the 1,215-foot stack in 1973 and completion of the project in 1977. The acid plant system resulted in an increase from 60% sulfur capture to 86%, reducing sulfur emissions by

¹⁹ Approval and Promulgation of State Implementation Plans – Utah SO₂ Plan, February 20, 1985, 50 FR 7059, www.govinfo.gov/content/pkg/FR-1985-02-20/pdf/FR-1985-02-20.pdf.

²⁰ Utah SIP, Section XVIII, Demonstration of GEP Stack Height, May 2, 1986.

²¹ Standards of performance for Primary Copper Smelters, 42 FR 37937, July 25, 1977; www.govinfo.gov/content/pkg/FR-1977-07-25/pdf/FR-1977-07-25.pdf.

²² Applicability and designation of affected facility, 40 CFR 60.160, www.ecfr.gov/current/title-40/section-60.160.

1 approximately 65%. Based on this information, the EPA concluded that the 1970's Kennecott
2 expansion/modification did not subject the smelter to 40 CFR 60 NSPS Subpart P requirements.

3 vii) Analyses of the Stack Height SIP Submittal

4 The Kennecott stack height analyses were undertaken to comply with the July 8, 1985, stack
5 height regulations, as well as the conditions specified in the approval of the Utah SO₂ SIP.²³
6 Kennecott originally had two 400-foot stacks (grandfathered stack height) from which SO₂
7 emissions from the smelter were vented. The 1970's expansion/modification included the
8 replacement of the two 400-foot stacks with a single 1,215-foot stack. The GEP formula height
9 ($H + 1.5 L$), considering the nearby buildings, is 212.5-foot.

10
11 The initial Kennecott GEP demonstration was submitted on May 2, 1986, with subsequent
12 submittals on October 6, 1986, December 3, 1986, November 13, 1987, and May 11, 1988.

13 There were two basic parts to the Kennecott analysis:

- 14 • The GEP demonstration – which consisted of three subparts: a fluid modeling protocol,
15 the fluid modeling results, and an evaluation of the fluid modeling results with respect to
16 the stack height regulations.
- 17 • A Best Available Retrofit Technology (BART) analysis – performed if the source
18 contended that the NSPS emission limits were infeasible. Relevant factors for this
19 analysis include high cost-effectiveness ratio, excessive local community impact,
20 excessive plant impact, and infeasibility issues. Kennecott provided responses to all the
21 BART factors mentioned above. The cost effectiveness ratio and technical infeasibility
22 issues, however, were determined critical to this review because of their relationship to
23 the emission limitations used in the GEP analyses.

24 Because the Kennecott emissions, as established through MPR, were used in the 1981 SO₂ SIP,
25 EPA's primary concern with the use of any emission rate in the demonstration of GEP was
26 ensuring protection of the NAAQS. The basic concept behind GEP is to prevent sources from
27 using illegal dispersion techniques to avoid emissions controls.

28
29 Kennecott provided extensive data on its GEP analyses.²⁴ To summarize, the GEP demonstration
30 showed that the existing stack height of 1,215 feet met the 40% criterion due to terrain effects
31 and an exceedance of the NAAQS at MPR emission rates. MPR is a technique designed for
32 sources with variable emission rates (e.g., smelters). MPR allows for a frequency distribution of
33 emission rates which will permit extremely high emissions on rare occasions. The MPR
34 methodology was constructed around the recognition that any control strategy would have a

²³ Approval and Promulgation of State Implementation Plans – Utah SO₂ Plan, February 20, 1985, 50 FR 7059,
www.govinfo.gov/content/pkg/FR-1985-02-20/pdf/FR-1985-02-20.pdf.

²⁴ GEP Demonstration and BART Analysis, 53 FR 48942.

1 predictable probability of allowing a violation of the NAAQS. The MPR was based upon
2 allowing a 26% probability of recording a violation. The GEP demonstration satisfies the
3 excessive concentration criteria in EPA's regulation if MPR reflects the proper emission rates.
4 After review, EPA concluded that Kennecott's analyses were acceptable, since Kennecott
5 performed a fluid modeling study consistent with existing guidance and the study was approved
6 by EPA.

7
8 Application of the level of control required by NSPS would reduce the emissions of SO₂ at
9 Kennecott during the stable process phase, but would not affect emission rates under startup,
10 shutdown, malfunction, and upset conditions. This is because the NSPS emission rate is for
11 normal operations and excludes such process conditions. MPR includes startup, shutdown,
12 malfunction, and upset conditions. From the Kennecott assessment, considering only long-term
13 averages, the cost portion is consistent with the tons of SO₂ reduction expected from similar
14 NSPS applications. In the Kennecott BART analysis, the controlling emissions for the
15 determination of GEP appeared to be those under upset, start-up, shutdown, and malfunction
16 conditions. Therefore, while there would be no difference in the emission rates under these
17 conditions as a result of meeting NSPS, there would be a substantial additional cost to control
18 these emissions.

19
20 In summary, the emissions at the smelter from startups, shutdowns, upsets, and malfunctions
21 were included in the MPR emission limits and would be considered in the NAAQS attainment
22 and GEP analyses. Application of NSPS technology would not affect these emission rates and
23 would, therefore, result in no change in demonstrating GEP. It may be possible to reduce annual
24 emissions by requiring additional controls on the smelter, but such reduction would have no
25 relevance to the limiting case for determination of GEP.

26
27 Given the above discussion, EPA proposed to approve²⁵ the Kennecott analysis in the Utah GEP
28 SIP submitted on May 2, 1986, with subsequent submittals on October 6, 1986, December 3,
29 1986, November 13, 1987, and May 17, 1988. However, EPA's review was conducted under a
30 specific assumption: that the emission rate(s) in the SO₂ SIP was sufficient to demonstrate
31 attainment. That assumption followed another critical assumption: that Kennecott owned or
32 controlled the lands in the upper elevation for which no monitoring data exists to demonstrate
33 attainment of the NAAQS.

34
35 Only one comment was received in response to the December 5, 1988, Federal Register which
36 proposed approval of the Kennecott GEP demonstration. The comment was from Kennecott in
37 support of this action. However, prior to publication of the proposed Federal Register approval,

²⁵ Approval and Promulgation of State Implementation Plans: Utah; Stack Height Analyses and Regulations, 53 FR 48942, December 5, 1988, www.govinfo.gov/content/pkg/FR-1988-12-05/pdf/FR-1988-12-05.pdf.

1 EPA received a letter from a landowner in the Oquirrh Mountains expressing concerns about the
2 lack of ambient monitoring in the nonattainment area. This was EPA's first documented
3 information on public access in the nonattainment area other than the Kennecott operation. EPA
4 proceeded to continue its evaluation of the State submittal and to publish its position on the GEP
5 demonstration based on the State submittal but initiated a reevaluation on land ownership above
6 the 5,600 feet elevation in the Oquirrh Mountains. Documentation on the claim of
7 landownership, other than that of the Kennecott operations, was provided by Howard Haynes,
8 Jr., in March 1989.²⁶

9 viii) 1981 SO₂ and 1986 GEP SIP Reassessment

10 Data from the Salt Lake County and Tooele County Assessor offices showed over 80 landowners
11 in the nonattainment area. Kennecott also conducted independent research and verified the list of
12 landowners. One of the critical assumptions of the conditional approval of the 1981 SO₂ SIP and
13 the emission rate was Kennecott's ownership or control of those lands in the potential
14 nonattainment area in the Oquirrh Mountains. The land ownership research revised the EPA's
15 earlier assumptions on the adequacy of the 1981 SO₂ and the 1986 GEP Stack SIPs.
16

17 In response, EPA began discussions with Kennecott and the State to resolve these issues and
18 outline a path forward for addressing the SO₂ and GEP SIPs. During these negotiations, the State
19 was also in the process of developing the PM₁₀ SIP for the Salt Lake County nonattainment area.
20 This process identified SO₂ as a key precursor to PM₁₀ pollution. Sulfates formed from SO₂
21 emissions are among the most common secondary particles contributing to PM₁₀ nonattainment.
22 Kennecott's smelter alone was responsible for 56% of the county's total PM₁₀ emissions,
23 including both primary and secondary particles.
24

25 The State adopted the PM₁₀ SIP in August 1991 and submitted it to the EPA in November of the
26 same year²⁷. The SIP imposed significant SO₂ emission reductions across Kennecott's operations
27 including the mine, concentrator, refinery, power plant, and smelter. The allowable smelter SO₂
28 emissions were reduced from 76,000 tons per year (tpy) or 18,000 lbs/hr annual average as set by
29 the 1981 SO₂ and 1986 GEP SIPs, to 18,500 tpy. This new limit included fugitive emissions and
30 applied to the entire smelter operation. The previous 76,000 tpy cap applied only to emissions
31 from smelter processing units and SO₂ removal systems vented through the 1,215-foot stack and
32 did not account for fugitive emissions. Under the revised PM₁₀ SIP, the stack-specific limit was

²⁶ Approval and Promulgation of State Implementation Plans: Utah; Stack Height Analyses and Regulations and SO₂ Nonattainment Plan, 59 FR 239, December 14, 1994, www.govinfo.gov/content/pkg/FR-1994-12-14/html/94-30607.htm.

²⁷ Approval and Promulgation of Air Quality Implementation Plan: Utah; Revision to the State Implementation Plan Addressing PM₁₀ for Salt Lake and Utah County, July 8, 1994, https://archives.federalregister.gov/issue_slice/1994/7/8/35035-35044.pdf.

lowered to 14,191 tpy, encompassing only emissions from the processing units and pollution control equipment.

ix) 1991 GEP and 1992 SO₂ SIP Submittals

On November 15, 1990, The CAA was amended to address issues like acid rain, urban air pollution, toxic air emissions, and stratospheric ozone depletion. The amendments also established a national operating permits program and strengthened enforcement provisions.²⁸ On May 15, 1992, the Governor of Utah submitted a revision to Section 9, Part B of the SO₂ SIP to address the amendment to the CAA requirement that a SIP revision be submitted by May 15, 1992, for any area that did not have a fully approved SIP as the 1981 SO₂ SIP was only conditionally approved. The significant changes in this SIP revision from that of the 1981 submittal were as follows:

- Revision to the GEP Stack height Section 16 set an allowable emissions limit of 14,191 tpy for the 1,215-foot main stack, as derived in the PM₁₀ SIP.²⁹ This limit reflects the use of double-contact acid plant technology, improved capture of fugitive emissions, and enhanced operation and maintenance.
- The MPR emission limitations and assumptions were removed and replaced with the emission limitation that can be achieved using the NSPS technology, double contact acid plant, or the equivalent of NSPS. NSPS is the presumptive norm for RACT for this facility. The SO₂ SIP was revised to reference the same emission limitations as those stated in the PM₁₀ SIP.
- The 1971 SO₂ NAAQS³⁰ are 0.14 ppm for the 24-hour primary standard, and 0.5 ppm for the 3-hour secondary standard. The 24-hour impact analysis was a rollback analysis that compared the smelter emissions in 1991 (PM₁₀ SIP emission limitation) with the 1979 emissions. The State had monitoring data showing attainment at Lake Point (an area originally defined as ambient air and owned by the Bureau of Land Management but now owned by Kennecott) where exceedances were recorded. The Lake Point site could be considered representative of the closest point in the elevated terrain that would be impacted by the tall stack emissions. Demonstrating attainment at Lake Point would technically support the attainment elsewhere in the elevated terrain that is considered ambient air. The area considered ambient air in the elevated terrain is a significant distance downwind from Lake Point.
- The PM₁₀ SIP emission limitation was based on a 24-hour SO₂ limit; this emission limitation was to be achieved through a given lbs/hr calculated on a 6-hour average. The 24-hour limit was considered “controlling” for PM₁₀ and SO₂ (i.e., the 24-hour limitation

²⁸ 1990 Clean Air Act Amendment, www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary.

²⁹ 1994 Revision to the State Implementation Plan Addressing PM₁₀ for Salt Lake and Utah County, https://archives.federalregister.gov/issue_slice/1994/7/8/35035-35044.pdf.

³⁰ Table of Historical SO₂ NAAQS, www3.epa.gov/ttn/naaqs/standards/so2/s_so2_history.html.

was believed to be the level of control necessary for PM₁₀ attainment, as well as for the SO₂ attainment demonstration). The SO₂ SIP established a 3-hour limitation and verified that such limitation would protect the 3-hour NAAQS.

- Section 4.2 of the Utah Air Conservation Rules was revised to include a 24-hour averaging period for the sulfur content of coal, fuel oil, and fuel mixtures, and to specify the ASTM methods to be used to demonstrate compliance with the limitation and reporting requirement. The previous rule specified a limit for the sulfur content of fuels but did not specify an averaging time or specific ASTM methods. Section 4.6 was also revised to include a 3-hour averaging time for Sulfur Burning Production Sulfuric Acid Plants.
- Specific regulations which were provided for special consideration (including malfunction provisions) on the smelter fluctuating operation were removed. Malfunction provisions for the Kennecott smelter operation were the same as for any stationary source in Utah. This issue was addressed during the PM₁₀ SIP development and was approved under the PM₁₀ SIP federal approval process. These regulation impacts were clarified in the SO₂ SIP revision.

x) 1994 SO₂ and GEP SIP Approval

On December 14, 1994, EPA approved the SO₂ and GEP stack height SIPs, as they were consistent with the EPA guidance.³¹ General SO₂ regulations that were previously determined as deficient with respect to meeting the statewide SO₂ SIP requirements were also approved.

EPA advised the State to ensure consistency with the State's permits and the federally enforceable SIP. The State's permit program was part of the federally approved SIP. The final approval of SO₂ and GEP stack height SIPs also made the emission limitations for these stationary sources federally enforceable. EPA advised the State that if different emission limitations exist, EPA will enforce the more stringent of the two or more emission limitations. This is to ensure that the attainment demonstration of a nonattainment area is maintained. It is therefore critical that the State maintain consistent emission limitations in permits and in federally approved SIPs and update the emission limitations sections of these plans to ensure clarity and consistency.

³¹ Approval and Promulgation of State Implementation Plans, Utah Stack Height Analyses and Regulations, December 14, 1994, 59 FR 18341, www.federalregister.gov/documents/search?conditions%5Bterm%5D=59+FR+18341.

1 xi) 1999 SO₂ Draft Maintenance Plan Submission

2 In November 1999, a draft SO₂ maintenance plan and redesignation request³² for Salt Lake and
3 Tooele counties was submitted to the EPA for review. The draft reported that there had been no
4 violations of the 1971 SO₂ NAAQS in the nonattainment area. It credited this to improvements
5 made at the Kennecott smelter, which were sufficient to both achieve and maintain compliance
6 with the standard.

7 The draft also noted that other major SO₂ sources in the nonattainment area were addressed
8 through the PM₁₀ SIP, which reduced emissions to levels significantly lower than those in the
9 1980s. These SO₂ limits were federally enforceable, and no additional control measures were
10 considered necessary to maintain the NAAQS.

11 In higher elevation areas, the Kennecott smelter was identified as the only potential source of
12 concern. However, based on a rollback of earlier modeling data and a straight rollback analysis,
13 the current emission limits in the SO₂ SIP for Kennecott are determined to be more than adequate
14 to ensure continued compliance in those areas. The plan further stated that these limits will
15 remain federally enforceable and are not expected to increase over the next decade.

16 xii) EPA Review of the 1999 Draft Maintenance Plan

17 The EPA reviewed the States's submission and identified several deficiencies in the maintenance
18 plan in a letter dated December 17, 1999.³³ These deficiencies are summarized below:

- 19 ● The letter emphasized the need for a thorough review of a historical, current, and future
20 allowable emissions inventory for SO₂ sources in the nonattainment area to determine if
21 further dispersion modeling is needed.
- 22 ● A screening analysis was recommended to determine the need for further dispersion
23 modeling. This involved reviewing emissions, performing screening modeling if future
24 emissions were significant, and potentially more refined modeling if the screening
25 modeling indicated violations.
- 26 ● The letter included several comments on the enforceability of emission limits within the
27 maintenance plan, stressing that limits must remain in effect, be federally enforceable,
28 and be consistent with NAAQS timeframes. Specific comments were made regarding
29 Kennecott's emission limits, stating the State must commit to current emission levels in
30 place or analyze and project growth increase.
- 31 ● The letter deemed the contingency measures outlined in the draft maintenance plan to be
32 insufficient, as the draft lacked clear identification of potential measures, a schedule and

³² Draft SO₂ Maintenance Plan and Redesignation Request, November 1999.

³³ December 17, 1999, Letter from the EPA Region 8 in response to Utah's draft maintenance plan submission.

1 procedure for adoption and implementation, and a specific time limit for State action,
2 with a commitment to fully implement corrective measures within one year of a NAAQS
3 violation.

- 4 ● The EPA noted that the draft maintenance plan does not provide a projected maintenance
5 year which is a required minimum of 10 years from the approved maintenance plan. The
6 maintenance plan shall include attainment and maintenance year emissions inventories
7 and explain how maintenance will be ensured.
- 8 ● Additionally, the letter requested clarification regarding the operation and replacement of
9 SO₂ monitors at the Lakepoint site in 1992.

10 xiii) Developing Modeling Protocol

11 Since the EPA's review of the 1999 draft Maintenance Plan, the State has developed a modeling
12 protocol³⁴ to demonstrate attainment of the 1971 NAAQS in the nonattainment area. The
13 protocol outlined the procedures, assumptions, data, and models to be used by the State to predict
14 ambient SO₂ concentrations from five petroleum refineries in Salt Lake and Davis counties. The
15 modeling analysis was requested by the EPA as a supplement to Utah's earlier effort to
16 redesignate Salt Lake County and part of Tooele County to attainment.

17
18 The EPA found the technical aspects of the modeling protocol acceptable, including the use of
19 alternative models, overlapping modeling domains, nearby sources, urban/rural dispersion
20 coefficients, background concentrations (with a request for Kennecott's annual emissions for
21 documentation), meteorological data, and receptor locations³⁵. However, the modeling protocol
22 did not include specific information regarding emission points, such as emission rates, caps,
23 routine flare emissions, stack heights, and enforceable measures. The State agreed to address
24 these concerns in the Maintenance Plan and received conditional approval from the EPA for the
25 modeling protocol³⁶.

26 xiv) 2004 SO₂ Draft Maintenance Plan Submission

27 The State drafted a new SO₂ Maintenance Plan³⁷ for the Salt Lake County and Tooele County
28 nonattainment areas and submitted it to the EPA for review on August 20, 2004. The newly
29 drafted Plan stated that there had been no violation in the nonattainment areas of any primary or
30 secondary NAAQS for SO₂ since 1981. This lack of monitored violations was attributed to the
31 permanent and enforceable emission reductions at the Kennecott main stack which led to the

³⁴ October 4, 2001, SO₂ Modeling Protocol, State submittal to the EPA.

³⁵ November 14, 2001, EPA Review of October 4, 2001 Modeling Protocol for Salt Lake County Sulfur Dioxide (SO₂) Redesignation Study, EPA letter to the State.

³⁶ November 14, 2001, EPA Review of October 4, 2001 Modeling Protocol for Salt Lake County Sulfur Dioxide (SO₂) Redesignation Study, EPA letter to the State.

³⁷ January 5, 2005, Sulfur Dioxide Maintenance Provisions for the Salt Lake-Tooele Sulfur Dioxide Nonattainment Area. Section IX.B.6.

1 area’s original nonattainment status. Based on this, the State requested redesignation of the
2 nonattainment area. No modeling analysis was included in the draft Maintenance Plan in an
3 effort to demonstrate attainment.

4 **xv) EPA Review of the 2004 Draft Maintenance Plan**

5 In a letter dated November 4, 2004, the EPA outlined their findings and comments for the draft
6 Maintenance Plan.³⁸ The letter stated that based on the preliminary review of the draft, several
7 fundamental requirements for maintenance plans and redesignations to attainment had not been
8 satisfied. The draft also did not demonstrate maintenance, project a maintenance date, or contain
9 sufficient contingency measures. On January 4, 2005, the EPA followed up in a letter
10 recommending deferred action on the Maintenance Plan and redesignation request due to the
11 significant unaddressed issues.³⁹ On April 19, 2005, the State formally submitted the SO₂
12 Maintenance Plan for Salt Lake County and parts of Tooele County.⁴⁰ The EPA never formally
13 acted on the SO₂ Maintenance Plan. In a letter dated November 12, 2019, the State withdrew
14 “UT SO₂ Redesignation and Maintenance Plan for Salt Lake City and UT SO₂ Redesignation and
15 Maintenance Plan for parts of Tooele County,” both submitted on April 19, 2005⁴¹. The letter
16 stated that “the Utah Division of Air Quality is working closely and cooperatively with the EPA
17 to craft an approvable maintenance plan so EPA can act on it promptly following submission.”

18 **IX.B.11.c Redesignation Requirements**

19 Section 107(d)(3)(E) of the Act outlines five requirements that a nonattainment area must satisfy
20 before an area may be eligible for redesignation from nonattainment to attainment. Table 3
21 identifies the redesignation requirements as they are stated in Section 107(d)(3)(E) of the Act.
22 Each element will be addressed in turn, with the central element being the maintenance plan
23 found in Subsection IX.B.11.d below.
24
25

³⁸ November 4, 2004, Sulfur Dioxide Maintenance Provisions, EPA letter to the State.

³⁹ January 4, 2005, Sulfur Dioxide Maintenance Provisions, EPA letter to the State.

⁴⁰ April 19, 2005, Sulfur Dioxide Maintenance Provisions for the Salt Lake-Tooele Sulfur Dioxide Nonattainment Area. Section IX.B.6, Governor’s letter to the EPA.

⁴¹ November 12, 2019, State of Utah withdrawing the maintenance plan, Governor’s letter to the EPA.

1 Table 3: Requirements to Redesignation in the Federal Clean Air Act

Category	Requirement	Reference	Addressed in Section
Attainment of Standard	Most recent two complete consecutive years of quality-assured monitoring data must show that violations of the standard are no longer occurring ⁴²	CAA §107(d)(3)(E)(i)	IX.B.11.c(i)
Approved SIP	The applicable implementation plan for the area must be fully approved	CAA §107(d)(3)(E)(ii)	IX.B.11.c(ii)
Permanent and Enforceable Reductions	The State must be able to reasonably attribute the improvement in air quality to emission reductions that are permanent and enforceable	CAA §107(d)(3)(E)(iii) Calcagni memo (Sec. 3, para 2) ⁴³	IX.B.11.c(iii)
Section 110 and Part D Requirements	The State must verify that the area has met all requirements applicable to the area under Section 110 and Part D	CAA: §107(d)(3)(E)(v), §110(a)(2), Sec 171	IX.B.11.c(iv)
Maintenance Plan	The Administrator has fully approved the Maintenance Plan for the area as meeting the requirements of CAA §175A	CAA §107(d)(3)(E)(iv)	IX.B.11.c(v) and IX.B.11.d

2 i. The Area Has Attained the 1971 SO₂ NAAQS

3 CAA 107(d)(3)(E)(i) - The Administrator determines that the area has attained the national
4 ambient air quality standard. To satisfy this requirement, the State must show that the area is
5 attaining the applicable NAAQS. According to EPA's guidance⁴⁴ concerning area
6 redesignations, there are generally two components involved in making this demonstration: (1)
7 relies upon ambient air quality data which should be representative of the area of highest
8 concentration and should be collected and quality assured in accordance with 40 CFR 58; and
9 (2) relies upon supplement air quality modeling. Each component will be addressed in turn.

⁴² Memorandum From Sheldon Myers, Director, EPA Office of Air Quality Planning and Standards to Regional Office Air Division Directors, "Section 107 Designation Policy Summary" April 21, 1983, <https://www.federalregister.gov/d/2014-09458/p-92>.

⁴³ John Calcagni, September 4, 1992, EPA Memorandum "Procedure for Processing Requests to redesignate Areas to Attainment" https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

⁴⁴ John Calcagni, September 4, 1992, EPA Memorandum "Procedure for Processing Requests to Designate Areas to Attainment" https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

(1) Ambient Air Quality Data (Monitoring) and Utah's Monitoring Network

The NAAQS for the 1971 SO₂ standard are as follows⁴⁵: primary standards include an annual (calendar year) arithmetic mean of 0.03 ppm and a 24-hour midnight to midnight block average of 0.14 ppm. An exceedance of the annual standard is a violation of the NAAQS, as are two exceedances of the 24-hour standard in any one calendar year at any one monitor site. In addition, there is a secondary standard of 0.5 ppm measured as a 3-hour block average, calculated from successive non-overlapping 3-hour blocks starting at midnight. Two exceedances of the 3-hour standard in a calendar year at any one monitoring site is a violation of the NAAQS. In order to demonstrate attainment of these standards, the State must collect eight consecutive calendar quarters (two years) of ambient data that is below the levels outlined above.⁴⁶ It is important to note that although the current SO₂ standards^{47, 48} are significantly more stringent than those established in 1971, they are being met with a substantial margin of compliance.

The Division's Air Monitoring section maintains an ambient air monitoring network in Utah in accordance with 40 CFR 58 that collects both air quality and meteorological data. Figure 1 shows the location of both historical and present SO₂ monitoring sites in the state. The data collected at these sites are routinely audited by the EPA and meets the agency's requirements for air monitoring networks.

⁴⁵ 40 CFR 50.4, National primary ambient air quality standards for sulfur oxides (sulfur dioxide), <https://www.ecfr.gov/current/title-40/section-50.4>.

⁴⁶ Memorandum From Sheldon Myers, Director, EPA Office of Air Quality Planning and Standards, to Regional Office Air Division Directors, "Section 107 Designation Policy Summary" April 21, 1983.

⁴⁷ 40 CFR 50, Review of the Primary National Ambient Air Quality Standards for Sulfur Oxides, www.federalregister.gov/documents/2019/03/18/2019-03855/review-of-the-primary-national-ambient-air-quality-standards-for-sulfur-oxides.

⁴⁸ 40 CFR 50, Review of the Secondary National Ambient Air Quality Standards for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter, www.govinfo.gov/content/pkg/FR-2024-12-27/pdf/2024-29463.pdf.

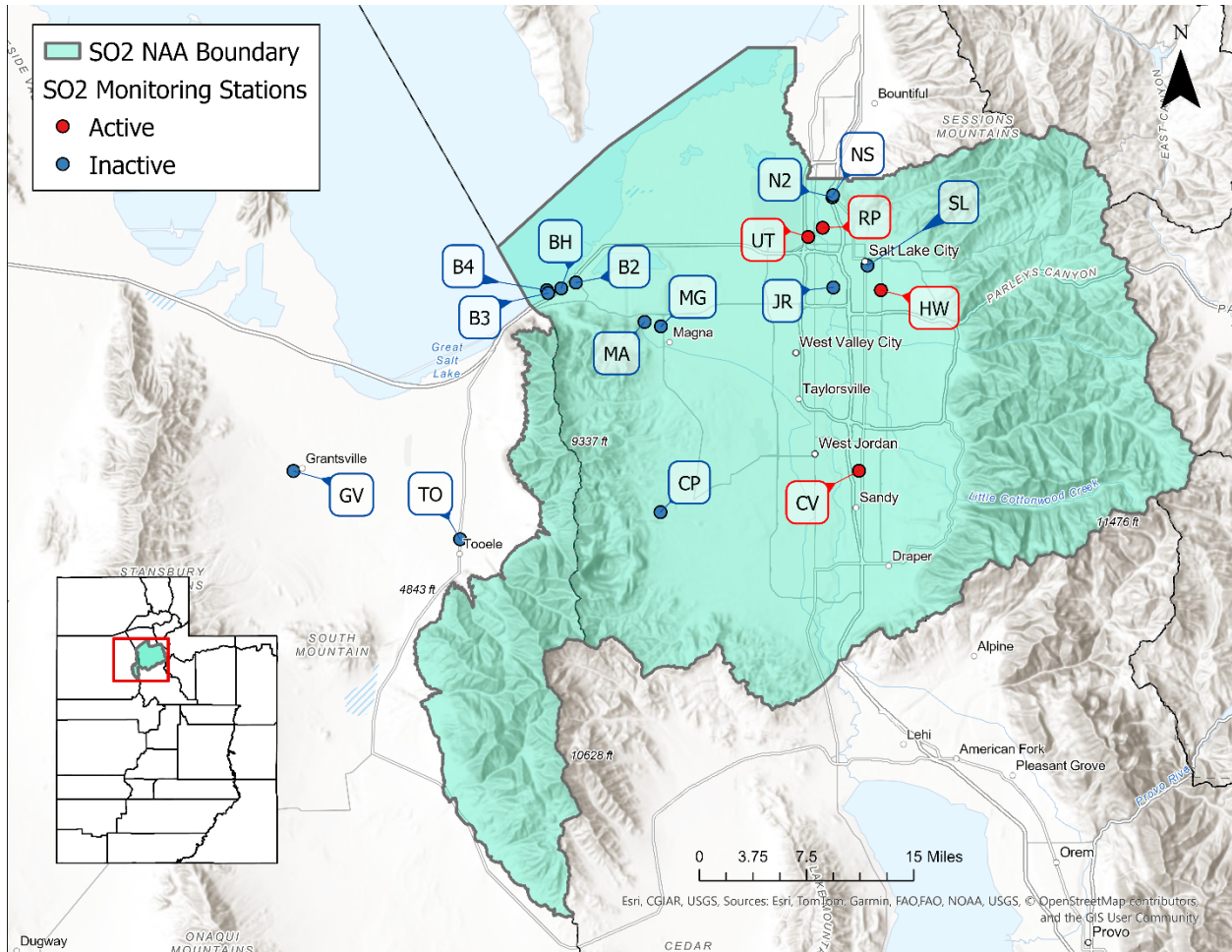


Figure 1: SO₂ nonattainment area boundary and monitoring network

Table 4 shows the SO₂ monitor values from 1981 to 2024. The data was downloaded from EPA's Air Quality System (AQS) database. Monitors that did not have three consecutive years of data available were excluded from this table. As shown in Table 4, a violation of the 24-hour standard was recorded at two monitors in 1981. Since then, there has been no recorded violation of the 1971 SO₂ standards in the nonattainment area.

1 Table 4: Nonattainment area monitoring data from 1981 – 2024

Year	AQS Site Number	1 st 24-hr Max (ppm)	Mean Annual Standard* (ppm)	3-hr Arithmetic Mean* (ppm)
1971 SO₂ Standards		0.14	0.03	0.5
1981	TO, MG, BH, SL, CP	0.160	0.034	0.034
1982	NS, JR, MG, BH, SL, CP	0.086	0.025	0.026
1983	JR, MG, BH, SL, CP	0.113	0.015	0.015
1984	N2, MG, SL, CP	0.080	0.013	0.013
1985	N2, MG, SL, CP	0.080	0.013	0.013
1986	B2, N2, MG, SL, CP	0.096	0.013	0.013
1987	B2, N2, MG, SL	0.109	0.027	0.028
1988	B2, N2, MG, SL	0.112	0.022	0.022
1989	B2, N2, MG, SL	0.111	0.019	0.019
1990	B2, N2, MG, SL	0.089	0.018	0.019
1991	B2, N2, MG, B3, SL	0.079	0.014	0.140
1992	N2, MG, B3, B4, SL	0.129	0.015	0.015
1993	N2, MG, B4, SL, GV	0.067	0.013	0.013
1994	N2, MG, B4, SL, GV	0.046	0.011	0.011
1995	N2, MG, B4, GV	0.066	0.004	0.004
1996	N2, MG, B4, GV	0.022	0.004	0.004
1997	N2, MG, B4, GV	0.019	0.004	0.004
1998	N2, MG, B4	0.029	0.003	0.003
1999	N2, MG, B4	0.012	0.004	0.004
2000	N2, MG, B4	0.014	0.004	0.004
2001	N2, MG, B4	0.013	0.004	0.004
2002	N2, MG, B4	0.010	0.004	0.004
2003	N2, MG, B4	0.015	0.005	0.005
2004	N2, MG, B4	0.015	0.004	0.004
2005	N2, MG, B4	0.011	0.003	0.003
2006	N2, MG, B4	0.008	0.003	0.003
2007	N2, MG, B4	0.011	0.003	0.003
2008	N2, MG, B4	0.009	0.003	0.003
2009	N2, MG, B4	0.018	0.004	0.004
2010	N2, MG, B4, HW	0.012	0.004	0.004
2011	N2, MG, B4, HW	0.007	0.002	0.002
2012	N2, MG, B4, HW	0.008	0.003	0.003
2013	N2, MG, B4, HW	0.006	0.003	0.003
2014	HW	0.002	0.001	0.000

Year	AQS Site Number	1 st 24-hr Max (ppm)	Mean Annual Standard* (ppm)	3-hr Arithmetic Mean* (ppm)
2015	HW	0.004	0.000	0.000
2016	HW	0.002	0.001	0.001
2017	HW	0.002	0.000	0.000
2018	CV, HW, RP	0.002	0.001	0.001
2019	MA, CV, HW, RP, UT	0.005	0.001	0.001
2020	CV, HW, RP, UT	0.002	0.000	0.000
2021	CV, HW, RP, UT	0.003	0.001	0.001
2022	CV, HW, RP, UT	0.003	0.001	0.001
2023	CV, HW, RP, UT	0.003	0.001	0.001
2024	CV, HW, RP, UT	0.002	0.001	0.001

TO: 49-045-0001; MG: 49-035-1001; BH: 49-035-2002; SL: 49-035-3001; CP: 49-035-4001; N2: 49-035-0012;
 B2: 49-035-0005; B4: 49-035-2004; HW: 49-035-3006; CV: 49-035-2005; RP: 49-035-3010; UT: 49-035-3015;
 NS: 49-035-0007; JR: 49-035-0009; B3: 49-035-2003; GV: 49-045-0002; MA: 49-035-1007

*Monitoring data was obtained from the AQS database on August 13, 2025. Discrepancies may be present due to historical recordkeeping practices and rounding errors.

The time series plots presented below illustrate the monitored SO₂ concentration from 1981 to 2024 in the nonattainment area. The plots show a clear and consistent downward trend in monitored SO₂ concentrations over the 43-year period. This decline is evident for both the primary and secondary SO₂ standards, indicating improvements in air quality that benefit both public health (primary standard) and environmental welfare (secondary standard). In the plots, the applicable SO₂ standard is represented by a dotted line, providing a visual reference point for assessing compliance over time, suggesting a positive trajectory toward air quality improvement.

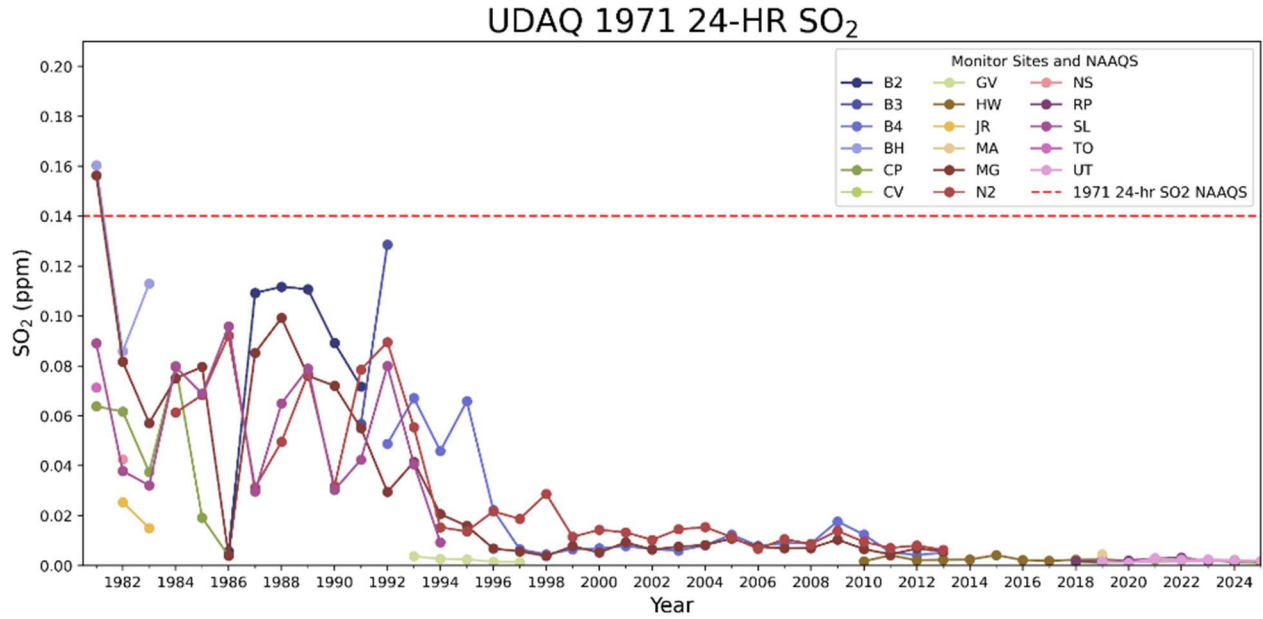


Figure 2: Monitored SO₂ values compared with 1971 24-Hour SO₂ standard

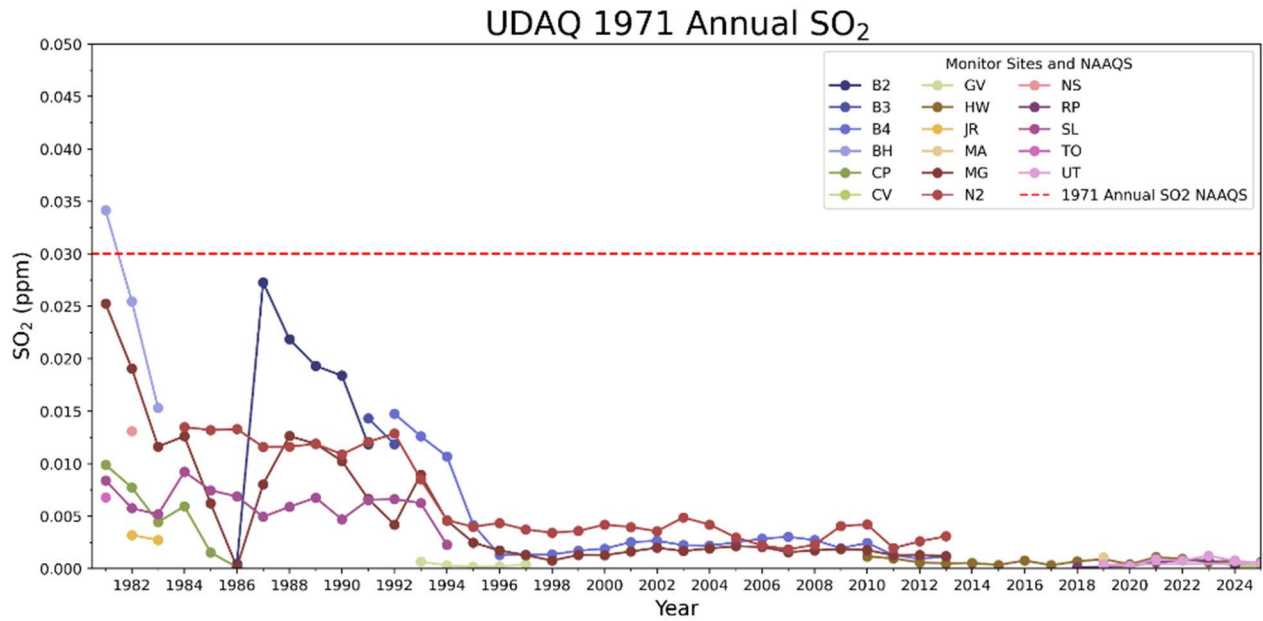


Figure 3: Monitored SO₂ values compared with 1971 Annual SO₂ standard

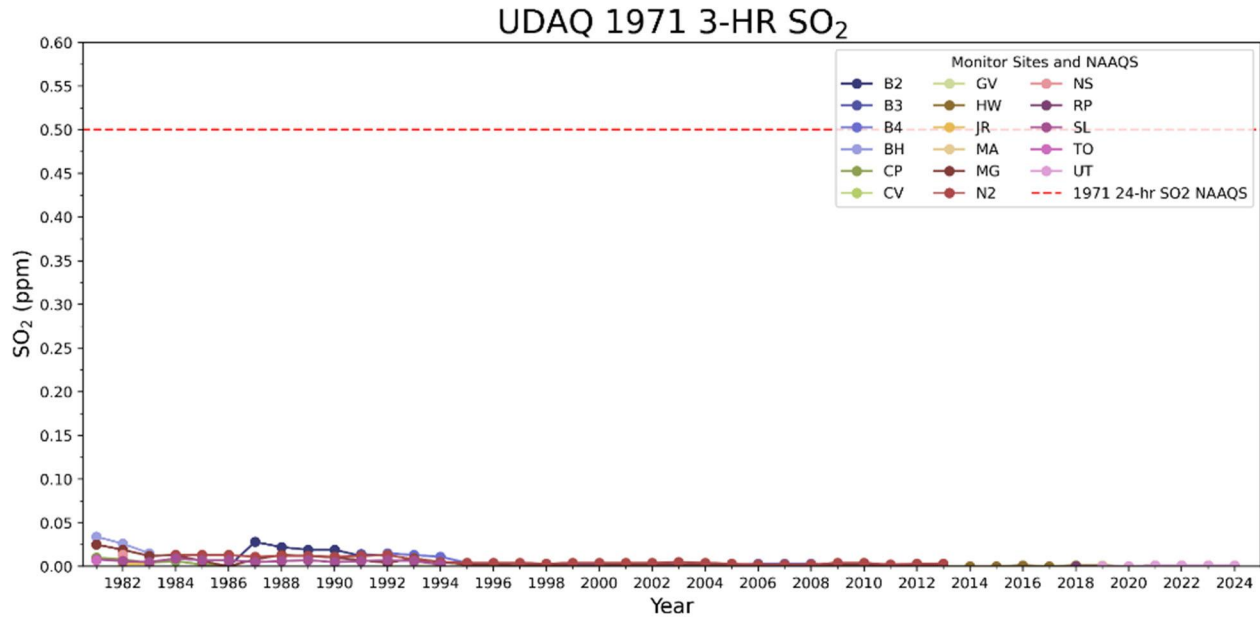


Figure 4: Monitored SO₂ values compared with 1971 3-hour SO₂ standard

(2) Modeling Element

EPA guidance⁴⁹ concerning redesignation requests and maintenance plans discusses the requirement that the area has attained the standard and notes that air quality modeling may be necessary to determine the representativeness of the monitored data. Areas that were designated nonattainment based on modeling will generally not be redesignated to attainment unless an acceptable modeling analysis indicates attainment. Dispersion modeling was conducted for the purpose of this maintenance demonstration to show compliance with the 1971 SO₂ NAAQS. Findings of the modeling analysis are summarized and discussed below. A detailed report of the modeling effort can be found in Appendix 1.

A. Introduction

The modeling effort was supported by Ramboll for use in the attainment demonstration. The model was run for all three 1971 standards. The modeling platform developed for this purpose incorporated a detailed modeling protocol, input from the Division and EPA Region 8 through a series of meetings, emissions data and stack characteristics for permitted sources provided by the Division, as well as relevant federal guidance on state implementation plan modeling, including the use of the AERMOD modeling system in accordance with 40 CFR Part 51, Appendix W.

⁴⁹ John Calcagni, September 4, 1992, EPA Memorandum "Procedure for Processing Requests to Redesignate Areas to Attainment" https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

A base year emissions inventory was provided by the Division, consisting of potential emissions and actual emissions for the most recent available year (2023) for sources in the airshed. The modeling demonstration includes consideration of a representative background concentration and the explicitly modeled impacts of six facilities in or near the nonattainment area. To maintain a conservative approach, the facilities were modeled based on their facility-wide allowable emission limits, which exceed the actual emissions by a considerable margin. These identified six facilities are:

- Kennecott Smelter and Refinery;
- Gadsby Power Plant;
- Tesoro Refinery;
- Chevron Refinery;
- Big West Refinery; and
- HF Sinclair Refinery.

The complete list of sources, site potentials to emit, and 2023 actual emissions for facilities in the nonattainment area and surrounding area are provided in Appendix 1.

Table 5: 1971 SO₂ Standards

Period	Standard	Value (ppm)	Value (µg/m ³)	Form	SIL* (µg/m ³)
3-Hour	Secondary	0.5	1,300	Not to be exceeded more than once per year (Highest Second High)	25
24-Hour	Primary	0.14	365	Not to be exceeded more than once per year (Highest Second High)	5
Annual	Primary	0.030	80	Annual mean; Not to be exceeded	1

*Significant Impact Level

Table 6: Background Design Value (DV)

Period	DV (ppb)	DV (µg/m ³)*
3-Hour	4.5	11.79
24-Hour	2.8	7.34
Annual	1.22	3.20

*Using the EPA conversion rate of 1 ppb SO₂ = 2.62 (µg/m³) SO₂

To aid in the modeling interpretation, three runs were performed for each standard:

- A “combined” run where effects of all emissions units are modeled at all receptors (including the effects of Kennecott emissions on its own property). This inclusion of on-

property impacts of emissions is a simple and conservative first run, designed to identify areas of refinement if needed, since not all modeled impacts using this approach can be compared to the NAAQS.

- A “Kennecott zero out” run where the emission rates of Kennecott emission units are set to zero. These runs may be used to evaluate NAAQS compliance at receptors inside the Kennecott fenceline.
- An “outside Kennecott” run where the receptors inside the Kennecott fenceline are excluded. These runs may be used to evaluate NAAQS compliance at all locations to which the public has access (i.e., not owned and controlled by Kennecott).

Note that the procedures regarding evaluation of ambient air for Kennecott are equally valid for the other five explicitly modeled facilities as well (e.g., effects of emissions from Tesoro emission units are not considered when evaluating NAAQS compliance at receptors on land owned and controlled by Tesoro where public access is effectively precluded). However, since modeled concentrations in northern Salt Lake County were well under the NAAQS, even within facility boundaries, the refined treatment of ambient air was not performed for those facilities.

B. 3-Hour Results

The results of the 3-hour modeling are shown in Table 7. Figure 2 and Figure 3 illustrate the impacts of nonattainment area-wide, and in the immediate vicinity of Kennecott. The concentrations reported are the highest second-high concentrations in any year, in accordance with the form of the NAAQS. The total impacts are the sum of the modeled value and the background value and are compared to the NAAQS.

Table 7: Results of 3-Hour Modeling

Scenario	Year	Modeled Value (µg/m ³)	Background Value (µg/m ³)	Total Impact (µg/m ³)	NAAQS (µg/m ³)
Combined	2020	935.96	11.79	947.75	1,300
Kennecott zero out	2022	7.11	11.79	18.90	
Outside Kennecott	2020	244.28	11.79	256.07	

Total impacts at all receptors are below the NAAQS, even when conservatively including Kennecott’s own impact on its own property. Indeed, as seen in Figure 3, the receptor with the highest impact is at the main smelter and refinery building itself, which is not in ambient air. When the impacts of the other facilities and background are evaluated at the Kennecott receptors (the zero out run), these impacts (18.90) are below the 3-hour SO₂ Significant Impact level (SIL) of 25 micrograms per cubic meter (µg/m³), demonstrating sources other than Kennecott have a de minimis impact at these receptors.

1
2 When considering the highest impacts (in the form of the standard) at all ambient air receptors
3 (outside Kennecott run), the impacts are less than 20% of the NAAQS. It is noted that these
4 results conservatively include the facility impacts within their fenceline for the other explicitly
5 modeled facilities. The analysis demonstrates that the cumulative impacts at locations of public
6 access are well below the level of the 3-hour SO₂ NAAQS throughout the nonattainment area.



Figure 5: Impacts of 3-Hour SO₂ (H2H) throughout the nonattainment area.

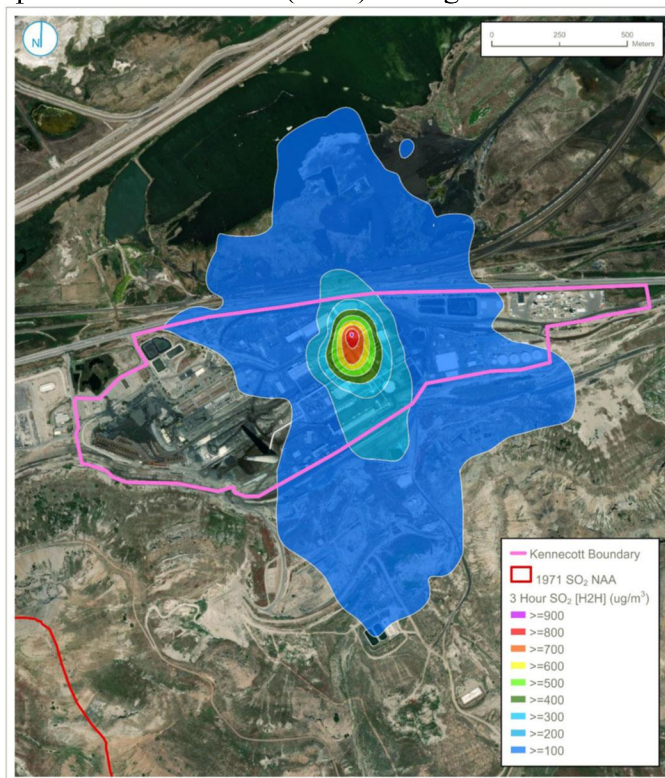


Figure 6: Impacts of 3-Hour SO₂ (H2H) in the vicinity of the Kennecott facility.

C. 24-Hour Results

The results of the 24-hour modeling are shown in Table 8. Figure 4 and Figure 5 illustrate the impacts nonattainment area-wide, and in the immediate vicinity of Kennecott. The concentrations reported are the highest second-high concentrations in any year, in accordance with the form of the NAAQS. The total impacts are the sum of the modeled value and the background value and are compared to the NAAQS.

Table 8: Results of 24-Hour Modeling

Scenario	Year	Modeled Value ($\mu\text{g}/\text{m}^3$)	Background Value ($\mu\text{g}/\text{m}^3$)	Total Impact ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)
Combined	2024	513.85	7.34	521.19	365
Kennecott zero out	2024	1.20	7.34	8.54	
Outside Kennecott	2024	112.60	7.34	119.94	



Figure 7: Impacts of 24-Hour SO₂ (H2H) throughout the nonattainment area.

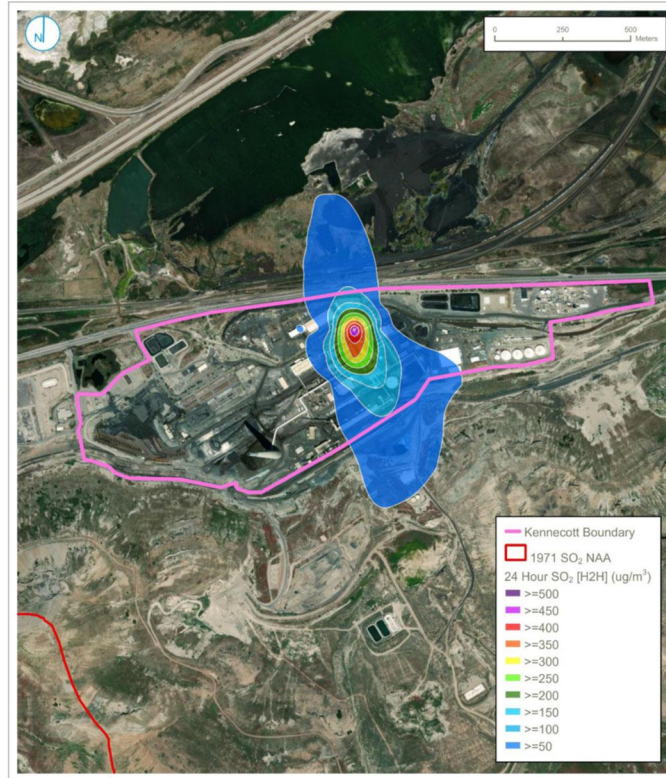


Figure 8: Impacts of 24-Hour SO₂ (H₂H) in the vicinity of the Kennecott facility.

There are two receptors on the Kennecott property that require additional refinement since they are not ambient air to Kennecott. Receptors at (399100, 4509000) and (399100, 4508900) have total impacts that, when including Kennecott emissions, exceed 365 µg/m³. However, these two receptors are on the Kennecott property, with one on the footprint of the smelter building itself and one immediately adjacent to it. When the Kennecott emissions are excluded in the zero out run, the modeled impacts of the other facilities on the Kennecott property (1.20 µg/m³) are below the level of the 24-hour SIL (5 µg/m³), demonstrating that impacts from other facilities are de minimis for the 24-hour standard at these receptors. Accordingly, the 24-hour SO₂ NAAQS is satisfied at all points in the domain, both inside and outside the Kennecott property.

When considering the highest impacts (in the form of the standard) at all ambient air receptors (outside Kennecott run), the impacts are less than 33% of the NAAQS. It is noted that these results conservatively include the facility impacts within their fenceline for the other explicitly modeled facilities. The analysis demonstrates that the cumulative impacts at locations of public access are well below the level of the 24-hour SO₂ NAAQS throughout the nonattainment area.

D. Annual Results

The results of the annual modeling are shown in Table 9. Figure 6 and Figure 7 illustrate the impacts nonattainment area-wide, and in the immediate vicinity of Kennecott. Concentrations reported are the highest annual average in any year, in accordance with the form of the 1971 NAAQS. The total impacts are the sum of the modeled value and the background value and are compared to the NAAQS.

Table 9: Results of Annual Modeling

Scenario	Year	Modeled Value (µg/m ³)	Background Value (µg/m ³)	Total Impact (µg/m ³)	NAAQS (µg/m ³)
Combined	2024	55.00	3.20	58.20	80
Kennecott zero out	2022	0.02	3.20	3.22	
Outside Kennecott	2022	7.13	3.20	10.33	

Total impacts at all receptors are below the NAAQS, even when considering Kennecott's own impacts on its own property. Indeed, as seen in Figure 7, the receptor with the highest impact is at the main smelter and refinery building itself. When the impacts of the other facilities are evaluated at the Kennecott receptors, these impacts (0.02 µg/m³) are below the annual SO₂ SIL of 1 µg/m³, demonstrating sources other than Kennecott have a de minimis impact in this area.

When considering the highest impacts (in the form of the standard) at all ambient air receptors (outside Kennecott run), the impacts are less than 13% of the NAAQS. It is noted that these results conservatively include the facility impacts within their fenceline for the other explicitly modeled facilities. The analysis demonstrates that the cumulative impacts at locations of public access are well below the level of the annual SO₂ NAAQS throughout the nonattainment area.

In 2024, EPA promulgated a new secondary annual SO₂ standard of 10 ppb (26.2 µg/m³)⁵⁰, averaged over the most recent three years. As is demonstrated by the model runs presented here, this standard is easily satisfied throughout the model domain.⁵¹ Assuming the maximum annual impact of 10.33 µg/m³ persists for three consecutive years, the impacts are less than 40% of the new secondary annual NAAQS.

⁵⁰ 89 FR 105692, <https://www.federalregister.gov/documents/2024/12/27/2024-29463/review-of-the-secondary-national-ambient-air-quality-standards-for-oxides-of-nitrogen-oxides-of>.

⁵¹ Results presented in Table 5 are for a single year whereas the new 2024 secondary standard is a multi-year average, so the results presented in Table 5 are in a form that is more conservative than the form of the new NAAQS.



Figure 9: Impacts of Annual SO₂ (highest single year) throughout the nonattainment area.

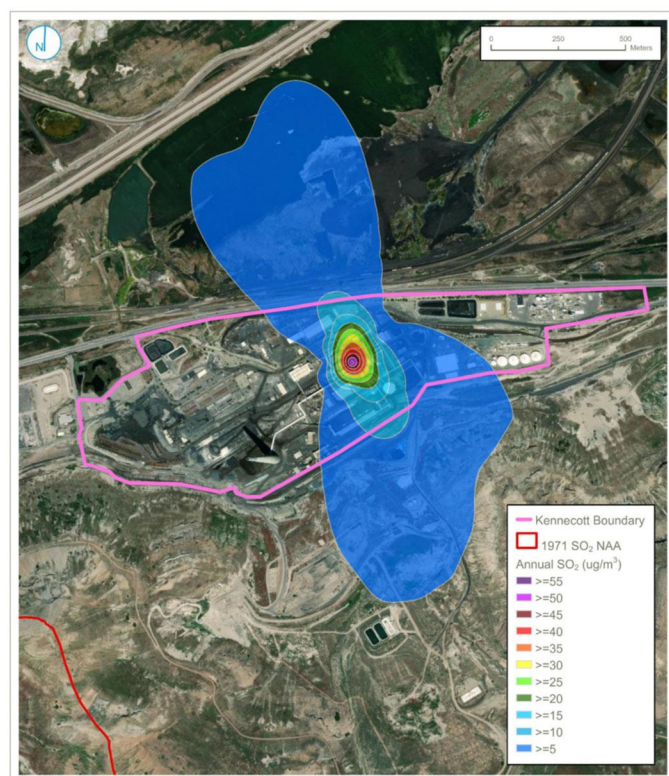


Figure 10: Impacts of Annual SO₂ (highest single year) in the vicinity of the

1 E. Discussion

2 As shown in subsections A through D, the modeled total impacts for the SLC NAA and TC NAA
3 comply with the 1971 NAAQS. The only receptors where concentrations exceeded the level of
4 the NAAQS were on the Kennecott property when modeling all emission units. Once the
5 Kennecott emissions were removed from consideration at those receptors, impacts of the other
6 facilities and background were found to be far below the standards.

7
8 At receptors outside the Kennecott boundary, the highest total impacts ranged from about
9 13% of the standard (annual) to about 33% of the standard (24-hour). Concentrations versus each
10 of the standards considered are far below the NAAQS at locations within ambient air.

11
12 The low magnitude of modeled impacts versus the NAAQS provides assurance that NAAQS
13 compliance within the airshed is robust and would be unaffected by different parameterizations
14 in the model setup. For example, as noted in the development of modeled emission rates
15 (Appendix 1), most facilities that were explicitly modeled operate under facility-wide restrictions
16 rather than a series of restrictions applicable to each individual emission unit. Where possible,
17 design capacities of each unit were used to calculate an individualized allowable emission rate
18 for that unit, while remaining unassigned emissions under the facility-wide cap were assigned to
19 units for which an individualized potential emission rate could not be determined. If those units
20 for which individualized totals were able to be calculated were emitting less than their calculated
21 rates, then the amount of unassigned emissions would be greater, and those units receiving the
22 unassigned emissions would then be able to emit at a higher rate.

23
24 With modeled impacts at ambient receptors being no more than one-third of any applicable
25 NAAQS, dramatic increases in emission rates – beyond the facility’s permitted levels – would
26 be necessary to obtain concentrations near the level of the NAAQS.

27
28 Similarly, there is such ample headroom between the modeled values and the NAAQS that
29 remaining uncertainty in stack parameters should not be a concern. Where the reviewed
30 information contained two different stack parameters for each unit, the lower value of the
31 parameter was chosen for modeling (i.e., lower stack height, smaller release temperature,
32 smaller release velocity, smaller stack diameter). In most instances, the choice of these
33 conservative parameters are expected to result in lower plume rise, less dispersion, and higher
34 modeled concentration. While the central portion of the nonattainment area is relatively flat,
35 there is rugged terrain in the western and eastern portions of the nonattainment areas. Complex
36 terrain may result in local hotspots of higher concentrations at distance from the facility. In the
37 present exercise, it should be emphasized that modeled total impacts at ambient receptors were only
38 13 to 33 percent of NAAQS, depending on the particular standard chosen. Given the small
39 magnitude of modeled impacts relative to the NAAQS, there is room if modeled results were to

1 change for a different choice of stack parameters. Additionally, the facility producing the highest
2 absolute impacts (Kennecott) was modeled with stack parameters that were previously reviewed
3 by the EPA, and as seen in Figure 3, Figure 5, and Figure 7, the highest impacts at Kennecott
4 occur at the facility itself rather than at distant hotspots.

5
6 In conclusion, the results of this modeling demonstration indicate the Salt Lake-Tooele 1971
7 SO₂ nonattainment areas are in attainment for the three standards under the 1971 SO₂ NAAQS at
8 facilities' currently permitted SO₂ emission rates.

9 ii. Fully Approved Applicable Implementation Plan for SO₂

10 *CAA 107(d)(3)(E)(ii) - The Administrator has fully approved the applicable implementation plan*
11 *for the area under section 110(k).* The 1990 amendments to the CAA required states to submit
12 SIP revisions by May 15, 1992, to address nonattainment of the 1971 SO₂ NAAQS. In response,
13 the State submitted revisions to the GEP stack height SIP on December 23, 1991, followed by
14 the revised SO₂ SIP on May 15, 1992. The EPA fully approved both the GEP and SO₂ SIPs, as
15 published in the Federal Register (59 FR 18341) on December 14, 1994.⁵² The SIPs became
16 effective on January 13, 1995. A detailed history of the SIP approval can be found in the
17 Background section of this document.

18 iii. Improvement in Air Quality Due to Permanent and Enforceable 19 Reductions in Emissions

20 *CAA 107(d)(3)(E)(iii) - The Administrator determines that the improvement in air quality is due*
21 *to permanent and enforceable reductions in emissions resulting from implementation of the*
22 *applicable implementation plan and applicable Federal air pollutant control regulations and*
23 *other permanent and enforceable reductions.* As discussed in the background section of this
24 document, the SO₂ impact that led to the area's nonattainment designation in 1978 was attributed
25 entirely to Kennecott, and primarily to its smelting process. The history of enforceable emission
26 reductions at Kennecott and improved air quality is discussed below.

27 (1) Emissions Reductions at Kennecott

28 Between 1978 and 1995, Kennecott undertook significant modernization of its smelting
29 operations in response to the 1971 SO₂ NAAQS violations and the later PM₁₀ SIP. Kennecott
30 replaced older reverberatory furnaces with Noranda reactors and installed a new single-contact
31 acid plant to control SO₂ emissions from both reactors and converters. A 1,200-foot stack was
32 constructed to improve dispersion and reduce ground-level impacts. Concurrently, improved

⁵² Approval and Promulgation of State Implementation Plans, Utah Stack Height Analyses and Regulations,
December 14, 1994, 59 FR 18341,
www.federalregister.gov/documents/search?conditions%5Bterm%5D=59+FR+18341.

capture systems and changes in operational practices were made to reduce fugitive emissions. In the 1981 SIP⁵³ submission, the Division revised the Utah administrative rules for air quality to include enforceable SO₂ emission limits for the smelter and associated units, including molybdenite heat treaters, the refinery, and the on-site power plant. RACT was applied to low-level emission sources and fugitive emissions.

As SO₂ is a known precursor to PM₁₀ formation, additional efforts were made to reduce SO₂ emissions as part of the 1991 PM₁₀ SIP. During this period Kennecott implemented further enhancements to the smelting operation, which included replacing the Noranda smelter with flash furnace technology, installing a flash-converting furnace, and upgrading to a double-contact acid plant. These modifications significantly reduced the allowable SO₂ emissions from the main stack from 18,200 lbs/hr to 3,204 lbs/hr.

Table 10 presents Kennecott's emissions from various operational units along with the original 1979 emission inventory. Original emissions are then compared side by side with their federally enforceable emission limits set by the 1981 SO₂ SIP and the 1991 PM₁₀ SIP. A drastic reduction in emissions can be observed at Kennecott from 1979 to 1999 as part of the SIP efforts.

Table 10: Historical SIP enforceable emissions reduction from Kennecott operations

Sources	1979 Emissions* (tpy)	Limits	1981 SO ₂ SIP Limits~	1990 Emissions** (tpy)	1991 PM ₁₀ SIP Limits~	1999 Emissions+ (tpy)
Main Stack	67,900	None	79,700 tpy	22,382	14,200 tpy	629.8
Smelter Fugitives	16,500	None	RACT	4,380	RACT	157.7
Utah Power Plant	4,759	None	0.48 lb/MMBtu	2,905	0.52 lb/MMBtu	2,786.10
Magna Molybdenum Heat Treater	1,988	None	608 tpy	NA	Discontinued	NA
Arthur Molybdenum Heat Treater	1,988	None	608 tpy	NA	Discontinued	NA
Copperton Molybdenum Heat Treater	NA	NA	NA	0.7	115 tpy	0.1
Refinery	1,512	None	512 tpy	4.2	None	0.4
Total	94,647			29,672		3,574

* The 1979 inventory was compiled as part of the 1981 SO₂ SIP revision.

** The 1990 inventory represents the period between the first round of smelter modifications and the second round, which coincided with the PM₁₀ SIP.

+ The 1999 inventory represents the period after the second smelter modification.

- The 1981 SIP tpy limits were expressed in lbs/hr (18,200 annual average at the main stack, 139 lbs/hr at each Heat Treater, and 117 lbs/hr at the refinery).

⁵³ Utah State Implementation Plan, Section 4.3.2. Regulation for Control of Main Stack SO₂ Emissions (Kennecott Mineral Company), August 16, 1981.

~ The 1991 SIP limits come from the PM₁₀ SIP. The tpy limits were expressed in lbs/hr (3,240 lbs/hr annual average at the main stack, 26.2 lb.hr for the Heat Treater at the Copperton Concentrator).

(2) Other Emissions Reductions Measures

As part of the 1992 SO₂ SIP, the State also made significant revisions to Utah Administrative Code Rule R307-203 which regulates sulfur content in fuels (coal, fuel oil, and/or fuel mixtures) from stationary sources. The rule established more stringent emissions standards which stated sulfur emissions shall contain no more than 1.0 lb/MMBtu heat input for any mixture of coal nor 0.85 lb/MMBtu heat input for any oil. In addition, the rule introduced a 24-hour averaging period for determining the sulfur content of these fuels and standardized testing procedures. As SO₂ is considered a precursor pollutant to PM₁₀, PM_{2.5}, and Regional Haze, the State has identified and implemented various emissions reduction measures in the respective SIPs. The SO₂ control measures implemented under Utah SIPs are tabulated below.

Table 11: SIP enforceable SO₂ control measures

Company/Sources	SO ₂ Control Measures	Quantified Reduction
2002 PM₁₀ SIP (Approved)⁵⁴		
Geneva Steel Process	Annual emissions reduced from 1449.3 tpy to 560.2 tpy	889.1 tpy
All Refineries in Salt Lake County and Davis County	Installation of Sulfur Recovery Units (SRU)	95% efficiency
	Restrictions on the burning of liquid fuel oil	
	Low-SO _x catalyst emission reduction techniques	Maximum of 9.8 lbs SO ₂ /1000 lbs coke burn-off
	CEM shall meet the requirements of rule R307-170.	
AMOCO, Flying-J, and Crysens	Emission limits for low process flares	
Flying-J and Crysens	Use of low sulfur content crude	Maximum of 0.24% by weight
Utah County	Ban on all forms of residential coal burning	30% reduction
	Installer and operator training programs for residential solid fuel burning devices	5% reduction
	Solid fuel burner inspection program	5% reduction
2014 Moderate Area PM_{2.5} SIP (Approved) - 2015 attainment year data		

⁵⁴ Utah State Implementation Plan, Section IX, Part A, PM₁₀,
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=551009&eqdocs=%20DAQ-2025-000622&dbid=0&repo=Public>.

Salt Lake City, UT ⁵⁵	R307-302, Solid fuel burning devices	19.16 tpy reduced
	R307-356, Appliance pilot light	1.10 tpy reduced
Provo, UT ⁵⁶	R307-302, Solid fuel burning devices	4.02 tpy reduced
	R307-356, Appliance pilot light	0.19 tpy reduced
Logan, UT ⁵⁷	R307-302, Solid fuel burning devices	2.01 tpy reduced
	R307-356, Appliance pilot light	~0.19 tpy reduced
2019 Serious Area PM_{2.5} SIP (Approved) - 2019 attainment year data ⁵⁸		
Salt Lake City	R307-208, Outdoor Wood Boilers	1.06 tpy reduced
	R307-356, Appliance pilot light	7.88 tpy reduced
	R307-302, Solid fuel burning devices	24.09 tpy reduced
IX.H.1-H.4: PM₁₀ Emission Limits ⁵⁹		
Stack Testing	Stack tests should be performed in accordance with 40 CFR 60, Appendix A, Method 2, 6C, and 19.	
Fluid Catalytic Cracking Units (FCCU)	FCCUs shall comply with an SO ₂ emission limit of 25 ppmvd @ 0% excess air on a 365-day rolling average basis and 50 ppmvd @ 0% excess air on a 7-day rolling average basis.	
Refinery Fuel Gas	Reduce H ₂ S content of the refinery plant gas to 60 ppm or less as described in 40 CFR 60.102a.	
Sulfur Recovery Units (SRU)	SRUs shall be at least 95% effective in removing sulfur and meet limitations listed in 40 CFR 60.102a(f)(1) or 60.102a(f)(2).	
	Amine acid gas and sour water stripper acid gas shall be processed in the SRU(s).	
Liquid Fuel Oil	Liquid fuel oil shall not be allowed to burn in stationary sources except during natural gas curtailments.	
	Diesel fuel shall meet the specification of 40 CFR 1090.305.	
Hydrocarbon Flares	Flares are subject to NSPS Subpart Ja.	

⁵⁵ Utah State Implementation Plan, Section IX, Part A.21, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=479906&eqdocs=%20DAQ-2024-011602>.

⁵⁶ Utah State Implementation Plan, Section IX, Part A.22, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=479904&eqdocs=%20DAQ-2024-011604>.

⁵⁷ Utah State Implementation Plan, Section IX, Part A.23, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=479910&eqdocs=%20DAQ-2024-011601>.

⁵⁸ Utah State Implementation Plan, Section IX, Part A.31, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=385732&eqdocs=%20DAQ-2019-005386>.

⁵⁹ Utah State Implementation Plan, Section IX, Part H,
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=560211&eqdocs=%20DAQ-2025-001221&dbid=0&repo=Public>.

	Install and operate a flare gas recovery system designed to limit hydrocarbon flaring produced from each affected flare during normal operations to levels below the values listed in 40 CFR 60.103a(c) or limit flaring during normal operations to 500,000 scfd for each affected flare.	
Big West Oil Company	Source-wide SO ₂ cap	Not to exceed 0.60 tons per day (tpd) and 140 ton per rolling 12-month period
	Alternate Startup and Shutdown Requirements	Combined emissions of SO ₂ shall not exceed 1.2 tpd
	The total number of days which include startup or shutdown of the FCCU shall not exceed ten (10) per 12-month rolling period.	
	Refinery flares shall meet Subpart Ja and MACT CC flaring standards.	
	Product loading racks shall be controlled by vapor recovery and vapor combustors.	
	Interim Emission Limits: Combined emissions of SO ₂ from all external combustion process equipment between October 1 - March 31	Not to exceed 2.764 tpd
	Interim Emission Limits: Combined emissions of SO ₂ from all external combustion process equipment between April 1 - September 30	Not to exceed 3.639 tpd
Chevron Products Company	Source-wide SO ₂ cap	Not to exceed 1.05 tpd and 383.3 tons per rolling 12-month period
	Sulfur Recovery Unit #1 and #2 shall be controlled by a tail gas treatment unit and tail gas incineration.	
	Flare #1 and #2 shall be controlled by a flare gas recovery system.	
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment.	Not to exceed 0.5 tpd
Hexcel Corporation	Natural gas consumption	Not to exceed 5.50 MMscf per day

Holly Refining and Marketing Company	Source-wide SO ₂ cap	Not to exceed 0.31 tpd and 110.3 tons per rolling 12-month period
	Sulfur recovery unit shall be controlled by tail gas incineration.	
	Interim Emission Limits: Combined emissions of SO ₂ from all sources	Not to exceed 4.714 tpd
Kennecott Utah Copper	Diesel-powered ore and waste haul trucks	Not to exceed 30,000 miles per day
	Smelter Main Stack (Stack #11) emission	Not to exceed 552 lbs/hr 3-hour rolling average
		Not to exceed 422 lbs/hr daily average
	Main Stack (Stack #11) shall have SO ₂ CEMs installed and meet the requirements of rule R307-170.	
	Power Plant Unit #4 shall only use natural gas as fuel, unless the supplier or transporter of natural gas imposes a curtailment.	
	Sulfur content of any fuel burned	Not to exceed 0.66 lbs of sulfur per MMBtu per test
Tesoro Refining & Marketing Company	Source-wide SO ₂ cap	Not to exceed 3.8 tpd and 300 tons per rolling 12-month period
	SRU/TGTU/TGI	Not to exceed 1.68 tpd for up to 21 days per rolling 12-month period and 0.69 tpd for the remainder of the rolling 12-month period
	North and South Flares shall be controlled by a flare gas recovery system.	
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between November 1 - End of February	3.699 tpd
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between March 1 - October 31	4.374 tpd
Gadsby Power Plant	Steam generating units #1, #2, #3 shall only use natural gas as fuel, unless the supplier or transporter of natural gas	

	imposes a curtailment and for maintenance firings.	
Brigham Young University	Central Heating Unit #2, #3 and #5	Not to exceed 597 ppm (7% O ₂ dry)
	Central Heating Plant Coal-Fired Boilers	Not to exceed 0.54 lbs of sulfur per MMBtu or 0.60% by weight
	Inspect fuel sulfur weight % and fuel heating value by submitting a coal sample to a laboratory using methods of ASTM, or inspecting vendor documentation.	
IX.H.11-H.13: PM_{2.5} Emission Limits ⁶⁰		
Stack Testing	Stack tests should be performed in accordance with 40 CFR 60, Appendix A, Method 2, 6C, and 19.	
Fluid Catalytic Cracking Units (FCCU)	FCCUs shall comply with an SO ₂ emission limit of 25 ppmvd @ 0% excess air on a 365-day rolling average basis and 50 ppmvd @ 0% excess air on a 7-day rolling average basis.	
Refinery Fuel Gas	Reduce H ₂ S content of the refinery plant gas to 60 ppm or less as described in 40 CFR 60.102a.	
Hydrocarbon Flares	Flares are subject to NSPS Subpart Ja.	
	Install and operate a flare gas recovery system designed to limit hydrocarbon flaring produced from each affected flare during normal operations to levels below the values listed in 40 CFR 60.103a(c) or limit flaring during normal operations to 500,000 scfd for each affected flare.	
Liquid Fuel Oil	Liquid fuel oil shall not be allowed to burn in stationary sources except during natural gas curtailments.	
	Diesel fuel shall meet the specification of 40 CFR 1090.305.	
Big West Oil Company	Alternate Startup and Shutdown	Combined emissions of SO ₂ shall not exceed 1.2 tpd
	The total number of days which include startup or shutdown of the FCCU shall not exceed ten (10) per 12-month rolling period.	
	Refinery flares shall meet Subpart Ja and MACT CC flaring standards.	

⁶⁰ Utah State Implementation Plan, Section IX.H.11-H.13,
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=585532&eqdocs=%20DAQ-2025-001223>.

	Product loading racks shall be controlled by vapor recovery and vapor combustors.	
Chevron Products Company	Sulfur Recovery Units #1 and #2 shall be controlled by a tail gas treatment unit and tail gas incineration.	
	Flare #1 and #2 shall be controlled by a flare gas recovery system.	
Hexcel Corporation	Natural gas consumption	Not to exceed 5.50 MMscf per day
HF Sinclair Woods Cross Refinery	Refinery flares shall be controlled by flare gas recovery system.	
	Sulfur recovery unit shall be controlled by tail gas incineration.	
Kennecott Utah Copper	Diesel-powered ore and waste haul trucks	Not to exceed 30,000 miles per day
	Power Plant Unit #4 shall only use natural gas as fuel, unless the supplier or transporter of natural gas imposes a curtailment.	
	Smelter Main Stack (Stack #11) SO ₂ emission	Not to exceed 552 lbs/hr 3hr. rolling average
		Not to exceed 422 lbs/hr daily average
	The Main Stack (Stack #11) shall have SO ₂ CEMs installed and meet the requirements of R307-170.	
	Electric Arc Furnace Baghouse shall have CEM installed and meet the requirements of R307-170.	
Nucor Steel Mills	SO ₂ emission	Not to exceed 93.98 lbs/hr 3-hour rolling average
		Not to exceed 89.00 lbs/hr daily average
Tesoro Refining & Marketing Company	SRU/TGTU/TGI	Not to exceed 1.68 tpd for up to 21 days per rolling 12-month period and 0.69 tpd for the remainder of the rolling 12-month period
	North and South Flares shall be controlled by flare gas recovery system.	
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between November 1 - End of February	3.699 tpd

	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between March 1 - October 31	4.374 tpd
Gadsby Power Plant	Steam generating unit #1, #2, #3 shall only use natural gas as fuel, unless the supplier or transporter of natural gas imposes a curtailment or for maintenance firings.	
University of Utah	Boilers #1, #3, and #4 natural gas usage	Not to exceed 530 MMscf per calendar year
Brigham Young University	Central Heating Unit #2, #3 and #5	Not to exceed 597 ppm (7% O ₂ dry) lbs/hr
	Sulfur content of central heating plant coal-fired boilers	Not to exceed 0.54 lbs/MMBtu
	Inspect fuel sulfur weight % and fuel heating value by submitting a coal sample to a laboratory.	

1
2

iv. State has Met Requirements of Section 110 and Part D

CAA 107(d)(3)(E)(v) – The State containing such area has met all requirements applicable to the area under section 110 and part D. Section 110 of the Act deals with the broad scope of the state implementation plans and the capacity of the respective state agency to effectively administer such a plan. Part D deals specifically with plan requirements for nonattainment areas, including those requirements that are specific to SO₂.

(1) Section 110

The State has met all requirements applicable to the SLC NAA area under Section 110 of the CAA. Section 110(a)(2) contains the general requirements or infrastructure elements necessary for EPA approval of the SIP. On June 2, 2013, the State submitted an Infrastructure SIP to the EPA demonstrating compliance with the requirements of Section 110 that are applicable to the 2010 SO₂ NAAQS.⁶¹ The EPA approved the State’s Infrastructure SIP on October 22, 2018 (83 FR 47566) for all Section 110 requirements that are applicable to redesignation.⁶²

(2) Part D Subpart 1 and 5

Part D of the CAA addresses “Plan Requirements for Nonattainment Areas.” Subparts 1 and 5 of Part D contain planning elements that must be included in the SIP. This includes emissions inventories, control measures (including reasonably available control technology), permits for major new or modified sources, enforceable emissions limits, schedules of compliance, and contingency measures if progress is inadequate. On May 15, 1992, the State submitted a revised SO₂ SIP adequately addressing each of the above-mentioned elements. The SIP was fully approved by the EPA on December 14, 1994, which suggests Utah has complied with all applicable Part D requirements.⁶³

v. Maintenance Plan

As stated in the CAA, an area may not be redesignated to attainment without first submitting and receiving EPA approval of a maintenance plan. The maintenance plan is a quantitative analysis showing that the area will continue to attain the NAAQS for an additional 10 years (from EPA

⁶¹ State of Utah 110(a)(2) SIP Infrastructure Elements for SO₂ (2013), <https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=572027&eqdocs=%20DAQ-2025-002449&dbid=0&repo=Public>.

⁶² Air Quality State Implementation Plans, Approvals and Promulgations: Infrastructure Monitoring Requirements for the 2008 Pb, 2010 SO₂, 2010 NO₂ and 2012 PM_{2.5} National Ambient Air Quality Standards, Utah, October 22, 2018, <https://www.federalregister.gov/documents/2018/09/20/2018-20448/air-quality-state-implementation-plans-approvals-and-promulgations-infrastructure-monitoring>.

⁶³ Approval and Promulgation of State Implementation Plans, Utah Stack Height Analyses and Regulations, December 14, 1994, 59 FR 18341, www.federalregister.gov/documents/search?conditions%5Bterm%5D=59+FR+18341.

approval), accompanied by sufficient assurance that the terms of the numeric demonstration will be administered by the State and by the EPA in an oversight capacity. The maintenance plan is the central criterion for redesignation. It is contained in the following Section.

IX.B.11.d Maintenance Plan

CAA 107(d)(3)(E)(iv) – *The administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A.* An approved maintenance plan is one of several criteria necessary for area redesignation as outlined in Section 107(d)(3)(E) of the CAA. The maintenance plan itself, as described in Section 175A of the CAA and further addressed in EPA guidance⁶⁴, has its own list of required elements. The following table is presented to summarize these requirements. Each will then be addressed in turn.

Table 12: Maintenance Plan Requirements in the Federal Clean Air Act

Category	Requirement	Reference	Addressed in Section
Maintenance Demonstration	Provide for maintenance of the relevant NAAQS in the area for at least 10 years after redesignation.	CAA §175A(a)	IX.B.11.d(i)
Revise in 8 Years	The State must submit an additional revision to the plan, 8 years after redesignation, showing an additional 10 years of maintenance.	CAA §175(b)	IX.B.11.d(ii)
Continued Implementation of Nonattainment Area Control Strategy	The CAA requires continued implementation of the nonattainment area control strategy unless such measures are shown to be unnecessary for maintenance or are replaced with measures that achieve equivalent reductions.	CAA §175A(c), Calcagni memo	IX.B.11.d(iii)
Contingency Measures	Areas seeking redesignation from nonattainment to attainment are required to develop contingency measures that include State commitments to implement additional control measures in response to future violations of the NAAQS.	CAA §175A(d)	IX.B.11.d(iv)

⁶⁴ John Calcagni, September 4, 1992, EPA Memorandum “Procedure for Processing Requests to Redesignate Areas to Attainment” https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf

Category	Requirement	Reference	Addressed in Section
Verification of Continued Maintenance	The maintenance plan must indicate how the State will track the progress of the maintenance plan.	Calcagni memo	IX.B.11.d(v)

1 i. Demonstration of Maintenance – Attainment Inventory

2 *CAA 175A(a) – Each State which submits a request under Section 107(d) for redesignation of a*
3 *nonattainment area as an area which has attained the NAAQS shall also submit a revision of the*
4 *applicable implementation plan to provide for maintenance of the NAAQS for at least 10 years*
5 *after the redesignation. The plan shall contain such additional measures, if any, as may be*
6 *required to ensure such maintenance.* The maintenance demonstration is discussed in the EPA
7 guidance⁶⁵ as one of the core provisions that should be considered by the states for inclusion in a
8 maintenance plan.

9
10 According to the EPA guidance, a state may generally demonstrate maintenance of the NAAQS
11 by either showing that future emissions of a pollutant or its precursors will not exceed the level
12 of the attainment inventory or by modeling to show that the future mix of sources and emission
13 rates will not cause a violation of the NAAQS.

14
15 As discussed in Section IX.B.11.c(i)(2) – Modeling Element of this document, Utah has
16 provided a modeling demonstration evaluating continued attainment of the NAAQS using the
17 highest allowable emissions from six point sources in and near the nonattainment area. In
18 addition to that analysis, Utah is providing an attainment inventory-based demonstration of
19 maintenance. Under this approach, projected future emissions at the highest allowable levels are
20 compared to the base-year attainment inventory to show that the emissions are expected to
21 remain at or below levels consistent with continued attainment.

22
23 Consistent with the guidance, the projection inventory should consider future growth, including
24 population and industry, should be consistent with the base-year inventory, and should document
25 data inputs and assumptions. Any assumption concerning emission rates must reflect permanent,
26 enforceable measures.

27
28 The Division chose 2023 as the base year for inventory analysis presented in this section because
29 it was the most recent triennial inventory year available for all source categories. The base-year

⁶⁵ John Calcagni, September 4, 1992, EPA Memorandum “Procedure for Processing Requests to Redesignate Areas to Attainment” https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

emissions inventory is a comprehensive, accurate, and current inventory of actual emissions for all sources in the nonattainment area plus any sources located outside the nonattainment area that may affect attainment.⁶⁶ The 2023 base-year emissions inventory is projected to 2040 to demonstrate maintenance of the NAAQS. The year 2040 is chosen to allow at least 10 years of maintenance period after final EPA redesignation. The emissions contained in the inventories include sources located in Salt Lake and Tooele counties.⁶⁷ Emissions from three point sources in Davis County (adjacent to Salt Lake County) are also included in the maintenance demonstration.⁶⁸ These sources were determined to be significant by the EPA for the attainment demonstration and were therefore included in both the modeling analysis and the inventory projection.

There are four general categories of sources included in the inventory: point source, area source, on-road mobile source, and non-road mobile source. All inventories are developed in accordance with the Air Emissions Reporting Requirements (40 CFR Part 51, Subpart A). Emissions recorded for each sector are presented in tons per year.

The point source category consists of all stationary sources subject to Utah Emissions Inventory Reporting Rule R307-150, including both major (>100 tpy) and minor (<100 tpy) SO₂ emission sources in Salt Lake and Tooele counties.⁶⁹ Stationary sources that are not subject to Rule R307-150 are classified under the area source category. The area source category also includes emissions estimates for sources that are individually too small to be reported as point sources but collectively contribute to total SO₂ emissions within the SO₂ nonattainment areas. Notable examples include combustion activities, agricultural burning, and wildfires.

On-road mobile sources include emissions from motorized vehicles that typically operate on public roadways, such as passenger vehicles, light-duty trucks, heavy-duty trucks, and buses. Non-road mobile sources include yard care equipment, construction equipment, recreational engines, and portable industrial, commercial, and agricultural engines. Emissions from both on-road and non-road mobile sources were developed using the EPA-approved Motor Vehicle Emission Simulator, version 5 (MOVES5).⁷⁰

Emissions inventory Table 13 shows baseline point source emissions from 1979 which were compiled as part of the 1981 SO₂ SIP effort.⁷¹ Area source emissions were projected to 2040

⁶⁶ Table 13, 14, and 15 of this document.

⁶⁷ Table 13: SO₂ emissions inventory for Salt Lake and Tooele counties by source category in tons per year.

⁶⁸ Table 14 and 15 of this document.

⁶⁹ R307-150 Emissions Inventory

<https://adminrules.utah.gov/public/rule/R307-150/Current%20Rules?searchText=R307-150>.

⁷⁰ MOVES5 5.0.1-movesdb20241112

<https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves>.

⁷¹ 1979 Baseline Emissions Inventory, 1981 SO₂ SIP,

from the 2023 triannual inventory. Growth data from appropriate data sources, including information from the Governor’s Office of Management and Budget, was used for the projection. Point source emissions are represented as the actual emissions from the 2023 triannual emissions inventory. Point sources were grown from 2023 to 2040 on a case-by-case basis for the projection inventories. On-road and non-road mobile source emissions were projected using MOVES5.

Table 13: SO₂ emissions inventory for Salt Lake and Tooele counties by source category in tons per year

Nonattainment Area Inventory Projection (tpy) ⁺												
	1979	1996	1999	2002	2005	2008	2011	2014	2017	2020	2023	2040
Area Sources	*	41.10	1,162.81	292.67	158.54	200.43	595.85	23.65	146.84	192.51	150.51	158.36
Non-Road Mobile	*	198.52	*	536.67	583.13	353.24	247.16	130.25	183.34	2.99	168.75	226.94
On-Road Mobile	*	0.00	927.36	855.61	608.61	86.35	120.84	103.82	108.60	32.19	33.65	18.60
Point Source**	112,994.17	4,959.54	5,108.81	4,771.65	4,998.86	5,955.08	3,467.53	3,076.37	2,250.27	631.55	560.15	588.35
Total	112,994.17	5,199.16	7,198.98	6,456.60	6,349.14	6,595.10	4,431.38	3,334.09	2,689.05	859.24	913.06	992.25

*Data not available

⁺Does not include emissions from Davis County sources

Total SO₂ emissions in the Utah SO₂ nonattainment area have declined dramatically since 1979, decreasing from approximately 113,000 tpy to about 913 tpy in 2023, representing a reduction of more than 99%. Early emissions were dominated by large industrial point sources, which accounted for nearly all SO₂ emissions in 1979. Substantial reductions occurred through the 1980s and 1990s as major facilities implemented enforceable emission limits and control technologies. Continued declines after 2000 reflect additional controls, operational changes, and improved compliance with federal and state permitting requirements. Since 2023, point sources remain the primary contributors but at significantly reduced levels, while area, on-road mobile, and non-road mobile sources collectively contribute a relatively small portion of total emissions.

The observed reductions are primarily attributed to implementation of the approved SIPs⁷², which required the application of RACT under moderate SIP and Best Available Control Technology under serious SIP and facility-specific emission limits⁷³ for major SO₂ sources. Additional reductions resulted from federal fuel sulfur standards and mobile-source regulations

<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=612086&dbid=0>.

⁷² Utah State Implementation Plans, <https://deq.utah.gov/air-quality/sections-state-implementation-plan-sip>.

⁷³ SO₂ Maintenance Plan, Table 11: SIP enforceable SO₂ control measures.

1 that substantially lowered sulfur content in fuels^{74, 75}, leading to near elimination of SO₂
2 emissions from on-road engines. Changes in the petroleum refinery industry, including fuel
3 switching and installation of sulfur control equipment, further contributed to long-term emission
4 decreases.⁷⁶

5
6 Between 2023 and 2040, total SO₂ emissions in the nonattainment area are projected to increase
7 modestly from 913.06 tpy to 992.25 tpy (approximately 9%), while remaining substantially
8 below historical levels associated with prior nonattainment. Point source actual emissions, which
9 constitute the largest share of the inventory, are projected to increase slightly from 560.15 tpy in
10 2023 to 588.35 tpy in 2040 due to anticipated industrial activity and economic growth. However,
11 emissions from these sources remain subject to permanent and federally enforceable permit
12 limits established in facility Approval Orders. These limits represent the maximum allowable
13 emissions for each facility and are not expected to increase by 2040. The projected 2040 point
14 source emissions of 588.35 tpy remain well below the facility-wide maximum allowable
15 emission limits used in the attainment modeling.⁷⁷ This relationship demonstrates that even with
16 modest growth in actual emissions, emissions remain within the bounds evaluated in the
17 attainment demonstration.

18
19 Non-road mobile source emissions are projected to increase from 168.75 tpy to 226.94 tpy,
20 largely attributable to projected growth in airport-related activity within the non-road sector. In
21 contrast, on-road mobile source emissions are projected to decline from 33.65 tpy to 18.60 tpy as
22 a result of continued fleet turnover and implementation of federal vehicle emission standards and
23 ultra-low sulfur fuel requirements. Area source emissions are projected to increase slightly from
24 150.51 tpy to 158.36 tpy, consistent with anticipated population and commercial growth.

25
26 Emissions projections through 2040 indicate that total SO₂ emissions are expected to remain low
27 and stable under existing regulatory programs, providing assurance that the maintenance area
28 will continue to comply with the current SO₂ NAAQS which is considerably more stringent than
29 the 1971 standards.⁷⁸ These trends demonstrate that the emission reductions are permanent,
30 surplus, and enforceable, and that the proposed maintenance area is well positioned to maintain
31 attainment throughout the maintenance period.

⁷⁴ 1090.205 Sulfur standards, 40 CFR 1090.205, <https://www.ecfr.gov/current/title-40/section-1090.205>.

⁷⁵ ULSD Standards, 40 CFR 1090.305, <https://www.ecfr.gov/current/title-40/section-1090.305>.

⁷⁶ Standards of Performance for Petroleum Refineries, 40 CFR Part 60 Subpart Ja,
<https://www.ecfr.gov/current/title-40/part-60/subpart-Ja>.

⁷⁷ Section IX.B.11.c(i)(2) The Area Has Attained the 1971 SO₂ NAAQS: Modeling Element

⁷⁸ SO₂ NAAQS, <https://www.epa.gov/so2-pollution/timeline-sulfur-dioxide-naaqs>.

- 1 Table 14: 2023 actual, 2040 projected, and maximum allowable SO₂ emissions for six explicitly
 2 modeled sources. Maximum allowable emission limits are held constant between 2023 and 2040.

Explicitly Modeled Sources	2023 Actual Emissions	2040 Projected Emissions	2023 & 2040 Maximum Allowable Emission Limits
Kennecott Smelter and Refinery	429.49	442.66	1,090.27
Gadsby Power Plant	1.16	0.88	75.00
Tesoro Refinery	17.60	18.14	300.01
Chevron Refinery*	37.58	38.73	384.70
Big West Refinery*	70.54	72.70	140.14
HF Sinclair Refinery*	12.17	12.55	84.10
Total	568.54	585.66	2,074.22

3 *Located in Davis County.
 4

5 Table 14 summarizes 2023 actual SO₂ emissions and projected 2040 emissions for the six
 6 explicitly modeled stationary sources⁷⁹ in and near the nonattainment area, along with their
 7 maximum allowable emission limits. In 2023, total actual emissions from these sources were
 8 568.54 tpy. Emissions are dominated by the Kennecott Smelter and Refinery (429.49 tpy), with
 9 the remaining facilities contributing comparatively smaller amounts. The combined maximum
 10 allowable emission limits for these six sources are 2,074.22 tpy, indicating that actual emissions
 11 are well below allowable levels and that significant compliance margins exist for each facility.
 12

13 Projected 2040 emissions total 585.66 tpy, representing a modest increase of approximately 3%
 14 from 2023 actual emissions inventory levels. Individual facility projections show only minor
 15 changes, and total maximum allowable emission limits remain unchanged through 2040. Overall,
 16 projected emissions remain substantially below the maximum allowable emission limits.
 17

18 The dispersion modeling conducted for the attainment demonstration used 2023 maximum
 19 allowable emission limits and the results show that the area meets the applicable SO₂ NAAQS.
 20 Emissions from these six explicitly modeled sources represent the primary contributors of SO₂,
 21 while all other emission sources in the nonattainment area accounted for in the background
 22 concentration used in the modeling analysis. Because 2040 maximum allowable emission limits
 23 remain unchanged and are comparable to the emissions levels used in the attainment modeling,
 24 similar dispersion modeling results would be expected under 2040 conditions. These data
 25 support the conclusion that SO₂ emissions from explicitly modeled sources are expected to
 26 remain stable over the maintenance period and that continued maintenance of the SO₂ NAAQS
 27 through 2040 is reasonably assured. Facility-wide maximum allowable emission limits and
 28 compliance with NAAQS have been discussed in detail in the modeling chapter in Section
 29 IX.B.11.c(i)(2) which supports the same conclusion.

⁷⁹ Section IX.B.11.c(i)(2) The Area Has Attained the 1971 SO₂ NAAQS: Modeling Element

1 Table 15: Triennial actual SO₂ emissions inventory for six explicitly modeled sources covering
 2 1996–2023, with forward projections from 2023 through 2040.

	1996	1999	2002	2005	2008	2011	2014	2017	2020	2023 Base- year	2040 Projection
Kennecott Smelter and Refinery	1,555.30	789.19	938.75	777.27	970.08	696.89	703.14	587.95	428.87	429.49	442.66
Gadsby Power Plant	0.60	1.70	1.90	0.56	1.95	0.81	1.52	0.46	0.59	1.16	0.88
Tesoro Refinery	982.63	1107.10	712.12	879.66	931.90	795.31	708.30	499.46	22.56	17.60	18.14
Chevron Refinery*	1,115.60	791.93	1,332.00	2,200.66	591.85	24.31	23.89	32.38	37.65	37.58	38.73
Big West Refinery*	573.87	441.66	272.48	360.77	377.39	188.71	57.14	55.43	50.63	70.54	72.70
HF Sinclair Refinery*	864.05	787.67	451.90	574.09	452.99	131.03	102.33	44.35	20.04	12.17	12.55
Total	5,092.05	3,919.25	3,709.15	4,793.01	3,326.16	1,837.06	1,696.32	1,220.03	560.34	568.54	585.66

3 *Located in Davis County.

4
 5 Table 15 provides another look at the long-term emission trends, the magnitude of reductions
 6 achieved, and the stability of emissions inventory through the maintenance period. The table
 7 presents triennial actual SO₂ emissions for the six explicitly modeled stationary sources from
 8 1996 through 2023, along with projected emissions through 2040. The data show a substantial
 9 long-term downward trend in emissions across the nonattainment area. Total emissions declined
 10 from 5,002.05 tpy in 1996 to 568.54 tpy in the 2023 base year, representing an overall reduction
 11 of approximately 89%. The most significant reductions occurred between 2008 and 2017 and are
 12 primarily attributable to process changes, fuel switching, installation of control technologies, and
 13 enforceable AO limits at the point source facilities.

14
 15 Emissions have remained relatively stable in recent years, with totals of 560.34 tpy in 2020 and
 16 568.54 tpy in 2023. Projected emissions for 2040 are 585.66 tpy, reflecting only a modest
 17 increase over the base-year of 2023. Individual facility projections show minor changes, and
 18 overall emissions remain far below historical levels and facility-wide maximum allowable
 19 emission limits. The long-term downward trend and the stability of recent and projected
 20 emissions inventory further support the conclusion that the area has attained the SO₂ NAAQS
 21 and is expected to continue to maintain the standard through 2040.

1 **ii. Revise in Eight Years**

2 *CAA 175A(b) – 8 years after redesignation of any area as an attainment area, the State shall*
3 *submit an additional revision of the applicable plan for maintaining the national primary*
4 *ambient air quality standard for 10 years after the expiration of the 10-year period. Utah*
5 *commits to submit a revised maintenance plan eight years after the EPA takes final action*
6 *redesignating Salt Lake County area to attainment, as required by the CAA.*

7 **iii. Nonattainment Requirements Applicable Pending Plan Approval**

8 *CAA 175A(c) – Until such plan revision is approved and an area is redesignated as attainment,*
9 *the requirements of CAA Part D, Plan Requirements for Nonattainment Areas, shall remain in*
10 *force and effect. The CAA requires the continued implementation of the nonattainment area*
11 *control strategy unless such measures are shown to be unnecessary for maintenance or are*
12 *replaced with measures that achieve equivalent reductions. Utah will continue to implement the*
13 *emissions limitations and measures from the SO₂ SIP.*

14 **iv. Contingency Plan**

15 *CAA 175A(d) – Each maintenance plan shall contain contingency measures to assure that the*
16 *State will promptly correct any violation of the standard which occurs after the redesignation of*
17 *the area to attainment. Such provisions shall include a requirement that the State will implement*
18 *all control measures which were contained in the SIP prior to redesignation.*

19
20 The contingency plan must also ensure that the contingency measures are adopted expeditiously
21 once triggered. The primary elements of the contingency plan are: 1) the list of potential
22 contingency measures; 2) the tracking and triggering mechanisms to determine when
23 contingency measures are needed; and 3) a description of the process for recommending and
24 implementing the contingency measures.

25 **Tracking**

26 The tracking plan for the Salt Lake County and part of Tooele County nonattainment area
27 consists of monitoring and analyzing ambient SO₂ concentrations. In accordance with 40 CFR
28 58, the State will continue to operate and maintain an adequate SO₂ monitoring network in the
29 nonattainment area.

30 **Triggering**

31 Triggering of the contingency plan does not automatically require a revision to the SIP, nor does
32 it mean that the area will automatically be redesignated once again to nonattainment. Instead, the
33 State will have an appropriate timeframe to correct the potential violation with implementation

1 of one or more adopted contingency measures. In the event that violations continue to occur,
2 additional contingency measures will be adopted until the violations are corrected.

3
4 Upon notification of a potential violation of the SO₂ NAAQS, the State will develop appropriate
5 contingency measures intended to prevent or correct violation of the standard. Information about
6 historical exceedances of the standard, the meteorological conditions related to the recent
7 exceedances, and the most recent estimates of growth and emissions will be reviewed. The
8 possibility that an exceptional event occurred will also be evaluated.

9
10 Upon monitoring a potential violation of the SO₂ NAAQS, including exceedances flagged as
11 exceptional events but not concurred with by EPA, the State will identify a means of corrective
12 action within six months after a potential violation. The maintenance plan contingency measures
13 will be chosen from the following list based on consideration of cost-effectiveness, emission
14 reduction potential, economic and social considerations, or other factors that the State deems
15 appropriate:

- 16 • Re-evaluate the permissible sulfur content of fuels for commercial and industrial sources,
17 as established in Rule R307-203.
- 18 • Further controls on the stationary sources in the nonattainment area that are listed below:
 - 19 ○ Kennecott Smelter and Refinery;
 - 20 ○ Gadsby Power Plant;
 - 21 ○ Tesoro Refinery;
 - 22 ○ Chevron Refinery;
 - 23 ○ Big West Refinery; and
 - 24 ○ HF Sinclair Refinery.

25
26 The State will then hold a public hearing to consider the contingency measures identified to
27 address the potential violation. The State will require implementation of such corrective action
28 no later than one year after the violation is confirmed. Any contingency measures adopted and
29 implemented will become part of the next revised maintenance plan submitted to the EPA for
30 approval.

31 v. Verification of Continued Maintenance and Monitoring

32 Implicit in the requirements outlined above is the need for the State to determine whether the
33 area is in fact maintaining the standard it has achieved. There are two complementary ways to
34 measure this: 1) by monitoring the ambient air for SO₂; and 2) by inventorying emissions of SO₂
35 from various sources.

36
37 The State will continue to maintain an ambient monitoring network for SO₂ in accordance with
38 40 CFR Part 58 and the Utah SIP. The State anticipates that the EPA will continue to review the

1 ambient monitoring network for SO₂ each year, and any necessary modifications to the network
2 will be implemented.

3
4 Additionally, the State will track new and modified stationary source permits. If the resulting
5 emissions change significantly over time, the State will perform appropriate studies to determine:
6 1) whether additional and/or re-sited monitors are necessary; and 2) whether stationary source
7 emission projections are on target. The State will also continue to collect actual emissions
8 inventory data from sources at thresholds defined in Rule R307-150 and will review and update
9 the annual emissions inventory for the nonattainment area at a minimum of once every three
10 years to ensure continued maintenance of the SO₂ standard.

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5 UTAH STATE IMPLEMENTATION PLAN

6 **SO₂ Maintenance**
7 **Provisions for the Tooele**
8 **County, UT SO₂ Nonattainment Area**
9

10 SECTION IX.B.12
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Section IX.B.12 SO₂ Maintenance Provisions for Tooele County

IX.B.12.a Introduction

In 1978, the U.S. Environmental Protection Agency (EPA) designated three areas in Utah as nonattainment for the 1971 National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO₂). At that time, the EPA had established three SO₂ standards: a 24-hour primary standard, an annual primary standard, and a 3-hour secondary standard. The three nonattainment areas were:

- Cedar City Nonattainment Area;
- Salt Lake County Nonattainment Area (SLC NAA); and
- Tooele County Nonattainment Area (TC NAA)¹

The EPA approved Utah's SO₂ control strategy for Cedar City on February 19, 1980. However, the strategy for SLC NAA and TC NAA was disapproved. In 1981, Utah submitted a revised SO₂ State Implementation Plan (SIP) for the two counties, which included a redefined nonattainment boundary covering all of Salt Lake County and only the eastern portion of Tooele County above 5,600 feet in elevation.

The EPA granted interim approval of this SIP in 1985, pending resolution of issues related to Good Engineering Practice (GEP) stack height requirements. To address this, Utah submitted its GEP SIP in 1986, followed by additional submittals in 1986, 1987, and 1988. The EPA proposed approval of the GEP SIP in 1988, but final approval was delayed due to public comments, particularly concerning land ownership on elevated terrain, which affected the GEP stack height demonstration.

With the 1990 amendments to the Clean Air Act (CAA), any nonattainment area lacking a fully approved SIP was automatically redesignated as nonattainment and subject to a SIP call. Because the Utah SIP had never received full approval, the State was once again required to submit revised SIPs addressing both:

- GEP stack height; and
- SO₂ control measures.

All other areas in Utah, including Cedar City, were found to have ambient air quality that was "better than the national standards," and thus did not require further SIP revisions. There have been no violations of either the primary or secondary NAAQS for SO₂ in the Utah nonattainment area since 1981. The lack of monitored violations is the result of permanent and enforceable

¹ A portion of the county is located within the area and is designated nonattainment
<https://www3.epa.gov/airquality/greenbook/sncs.html#UT>

1 emission reductions at the emissions points that were responsible for the violations which led to
2 the original nonattainment status.

3
4 Based on this long-standing compliance and in accordance with the CAA Section 107(d)(3)(D),
5 Utah submitted the required SIP revisions in 1991 (for GEP stack height) and 1992 (for SO₂
6 control). The EPA approved both in 1994, bringing Salt Lake County and Tooele County into
7 compliance with federal requirements.

8
9 Salt Lake County and Tooele County have attained the 1971 SO₂ standards. As a result, this
10 section has been added to the SIP to demonstrate that the area is eligible for redesignation to
11 attainment. Under Section 107(d)(3)(E) of the CAA, a nonattainment area is eligible for
12 redesignation when the area has met the following requirements: (1) the area has attained the
13 NAAQS standard; (2) the area has an EPA-approved attainment SIP; (3) the improvement in air
14 quality is due to permanent and enforceable reductions in emissions resulting from
15 implementation of the SIP; (4) the State has met the SIP requirements of Section 110 and Part D
16 of the CAA; and (5) the area has an EPA-approved Maintenance Plan.

17
18 As demonstrated in Subsection IX.B.12.c, the nonattainment area has satisfied the redesignation
19 requirements of Section 107 and is eligible for redesignation pending the EPA's approval of the
20 Tooele County Maintenance Plan. The maintenance plan is included in Subsection IX.B.12.d and
21 is written in compliance with Section 175A of the CAA. The maintenance plan demonstrates that
22 the nonattainment area will continue to maintain the 1971 NAAQS through 2040. The
23 maintenance plan also includes contingency measures to assure that the State will promptly
24 correct any violation of the standard that may occur after the redesignation. In addition to EPA's
25 approval of the maintenance plan, the State is requesting that the TC NAA be redesignated to
26 attainment for the 1971 SO₂ NAAQS.

27 IX.B.12.b History of Nonattainment Area Designation

28 Since the SO₂ nonattainment designations occurred at the same time and involved similar
29 regulatory decisions and control strategies by the EPA and the State, Section IX.B.12.b includes
30 discussion of all three areas to provide historical context and a complete description of Utah's
31 SO₂ SIP development. Although this maintenance plan applies specifically to the TC NAA, the
32 Salt Lake County and Cedar City areas are referenced because they were addressed concurrently
33 in the State's early SO₂ SIP submittals.

i) The 1981 SO₂ SIP Submittal

In the Federal Register dated March 3, 1978, there were three areas in Utah that were designated as nonattainment for the 1971 SO₂ NAAQS.² These three areas include:

- SLC NAA;
- TC NAA; and
- Cedar City.

All three areas were violating the primary 24-hour SO₂ standard of 0.14 parts per million (ppm) not to be exceeded more than once per year, in addition to the secondary 3-hour standard of 0.5 ppm not to be exceeded more than once per year. There have not been any recorded violations of the primary annual standard of 0.03 ppm. The designation of Cedar City as a nonattainment area for SO₂, made by the State, was based on ambient air quality data collected at the State's monitoring station on the campus of Southern Utah State College (now Southern Utah State University).³ The designation recommendations of Salt Lake and Tooele counties made by the State were overrode by the EPA, based on data collected at the State's ambient air monitoring stations in Magna and Tooele.²

The old reverberatory furnace system at the Kennecott Copper Corporation's Utah Smelter (Kennecott) was still in operation at that time. On March 13, 1981, the EPA revised Tooele County's nonattainment designation to include only areas above 5,600 feet in elevation. The primary focus of the 1981 SIP for Salt Lake and Tooele counties, supported by both the State and the EPA, was to control emissions from Kennecott's operations.

On August 17, 1981, the Governor submitted a revision to the SIP to address the attainment of the SO₂ NAAQS in Salt Lake County and Tooele County. Additional supporting documents were submitted by the State on December 7, 1981, and January 25, 1983. The primary control measure in the SIP for Salt Lake and Tooele counties was the construction of a new smelter at Kennecott to replace the old reverberatory furnace system. The only control measure in the SIP for Cedar City was enforcement of the existing limitation for sulfur content in fuel oil used at Southern Utah State College. In December of 1983, Cedar City was redesignated as an attainment area for SO₂.⁴

² Utah SO₂, Salt Lake and Tooele counties and Cedar City do not meet primary and secondary SO₂ standards, https://archives.federalregister.gov/issue_slice/1978/3/3/8907-9023.pdf#page=58, See Page 9039.

³ Utah State Implementation Plan, August 16, 1981, Section 9, Part B, Figure 9.B.1.

⁴ Utah Air Conservation Rule R307-1-4.2.

1 On February 7, 1983, the Governor formally requested that the SLC NAA and TC NAA be
2 redesignated to attainment. However, on March 23, 1984, the EPA proposed to postpone any
3 action on the redesignation request until several outstanding issues were resolved.⁵

4 ii) Control Strategies for Nonattainment Area

5 A careful review of the emissions inventory and diffusion modeling that was coordinated by the
6 State indicated that the emissions from one point source, Kennecott Copper Corporation, resulted
7 in violations of the 1971 NAAQS for SO₂ which were observed in both counties.
8

9 Ambient measurements taken by the Department of Health in Salt Lake County indicated that the
10 NAAQS were violated only at the site in Magna, Utah. Based on this information, the Magna
11 monitoring site was used as the control point for development of the control plan. No violations
12 of the 1971 NAAQS have been observed at any of the monitoring stations since 1980. As part of
13 the 1981 SIP,⁶ the State adopted revised emission limitations and control requirements for the
14 following Kennecott operations:

- 15 • Smelter Main Stack;
- 16 • Fugitive Emissions;
- 17 • Power Plant Boilers;
- 18 • Molybdenite Heat Treaters; and
- 19 • Refinery.

20 The power plant boilers, heat treaters, and refinery were required to meet constant emission
21 limitations. The fugitive emissions were controlled by application of “best engineering
22 techniques.”

23 The main stack, which accounted for 88% of the total emissions, was controlled by a variable
24 emission limitation. The main stack limits contained the following key elements:

- 25 • annual average emission limit of 18,200 pounds per hour (lbs/hr);
- 26 • cumulative occurrence limits at specified frequencies and 3-hour running average
27 emission rates; and
- 28 • a maximum 3-hour emission limit of 98,400 lbs/hr never to be exceeded.

29 These emission limitations were developed using the multipoint rollback (MPR) approach and
30 represented a 10% reduction from the allowable emissions under the previous state regulation. A
31 federally promulgated regulation specific to Kennecott had established a 6,030 lbs/hr emission
32 limit for the main stack and required the implementation of reasonably achievable control

⁵ Approval and Promulgation of State Implementation Plans Designation of Areas for Air Quality Planning Purposes, Utah Sulfur Dioxide Plan, March 23, 1984, 49 FR 10946.

⁶ Utah SO₂ SIP, <https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=612086&dbid=0>.

1 technology (RACT) for fugitive emissions.⁷ However, in response to petitions for
2 reconsideration and legal challenges to that regulation, the EPA agreed in 1977 not to enforce
3 these limits.

4 iii) State Attainment Demonstration

5 The 1981 SO₂ SIP demonstration only addressed the attainment of NAAQS in the lower
6 elevations and did not address the elevated terrain. Instead, the State took the position that these
7 higher elevation areas did not constitute “ambient air” under the definition provided in 40 CFR
8 50.1(e), as they are not accessible to the general public.⁸

9
10 The State employed several methods in developing the proposed emission limitations and in
11 demonstrating that the SIP would provide a reasonable probability of attaining the NAAQS in
12 lower elevation areas. These methods included:

- 13 • analysis of measured violations in Magna, Utah, and at the Great Salt Lake Beach,
14 including identification of the causes of those violations;
- 15 • calibrated dispersion modeling estimates to predict SO₂ concentrations in the lower
16 elevations before and after implementation of the SIP;
- 17 • qualitative analysis of the impacts of fugitive emissions at the Great Salt Lake Beach and
18 the improvements expected as a result of the SIP; and
- 19 • MPR for the development of the variable emission limitations at the main stack.

20 EPA's Review of State Attainment Demonstration

21 (1) Elevated Terrain

22 Historically, the EPA has applied the regulatory definition of “ambient air” in such a way that if
23 public access were precluded such as by a fence or other physical barrier, then air over property
24 owned or controlled by a source is not considered “ambient air” and therefore not subject to
25 NAAQS. This policy is reflected in the November 26, 1975, EPA rulemaking affecting the
26 Kennecott main stack emission limits.⁹ The EPA proposed that documentation and representation
27 made by Kennecott adequately demonstrate that the company had taken reasonable and effective
28 precautions to limit general public access to company property, and thus the company property
29 in the elevated terrain is not “ambient air.” Public comments on EPA’s final rulemaking were
30 pending and under review.

⁷ Standards of Performance for Primary Copper Smelters, 42 FR 37937, July 25, 1977, and 40 CFR 60.160.
www.govinfo.gov/content/pkg/FR-1977-07-25/pdf/FR-1977-07-25.pdf.

⁸ Definitions: 40 CFR 50.1(e), [www.ecfr.gov/current/title-40/part-50/section-50.1#p-50.1\(e\)](http://www.ecfr.gov/current/title-40/part-50/section-50.1#p-50.1(e)).

⁹ Rules and Regulations 40 FR 54788, www.govinfo.gov/content/pkg/FR-1975-11-26/pdf/FR-1975-11-26.pdf.

(2) SO₂ Control Strategy for Main Stack

The strategy developed by the State for the main stack was derived from a general approach known as MPR. The MPR approach is designed to accommodate the highly variable SO₂ emissions produced by smelters and produces a cumulative frequency distribution of allowed emission rates. Emission limits are developed by cumulative distribution of observed emission rates and air quality measurements over an extended period of time, usually a year or more. The SIP includes specific emission limitations for the low-level sources as well as a multipoint limit for the main stack. The mission limits included in the 1981 SO₂ SIP were:

Table 1: 1981 SO₂ SIP Limits

Source	Emission Limit
Power Plant Boilers	0.48 lbs/MMBtu
Molybdenite Heat Treaters	139 lbs/hr
Refinery	117 lbs/hr
Fugitive Emissions	RACT
Main Stack - Annual Average	18,200 lbs/hr
Main Stack - 3 Hour Maximum	98,400 lbs/hr

In the State's attainment demonstration, the design value (DV) for the MPR was a calculated 3-hour concentration of 0.46 ppm in lower elevations as compared to the 1971 NAAQS of 0.50 ppm. As the DV is less than the standard, this allowed an 8.7% increase in allowable emissions from the base period. The result was an allowable annual average stack emission rate calculated to be 18,200 lbs/hr.¹⁰ During the technical review of the control strategy, the EPA identified the following technical deficiencies and enforcement issues:

To develop the MPR, the State used a supplemental control system (SCS) during the period of record, which violates the basic principle of the MPR equation that emissions and dispersion are independent. At this time, no other acceptable alternate data was available to develop emission limits for the Kennecott smelter.

- In DV selection, the State used the second highest of the discrete 3-hour average instead of the highest one-per-year maximum concentrations.
- The State-proposed regulations required continuous emission monitors (CEM) to operate at least 95% of the time in each one-month period. However, the regulation did not limit the duration of a single breakdown.¹¹

¹⁰ Utah State Implementation Plan, Section 9 Part B.3.c., Development of the 3-hour Tall Stack Emission Limit, May 15, 1992.

¹¹ Utah State Implementation Plan, Section 4.3.2., Regulation for Control of Main Stack SO₂ Emissions (Kennecott Mineral Company), August 16, 1981.

- The State-proposed regulations did not outline the procedure to follow when determining which CEM data is 20% or more in error. The regulation also gave the smelter the option to delete or retain such data.¹²

The EPA conducted additional analysis on the development of MPR and the selection of DV and concluded that the strategy for the Kennecott main stack should not jeopardize attainment and maintenance of the SO₂ NAAQS in the lower elevations.¹³

Per the enforcement issues, the EPA proposed revisions of the rules to include provisions both limiting individual monitor downtime and providing incentives to strive for 100% CEM data recovery. Additionally, the EPA proposed to incorporate 40 CFR Part 60, Appendix B Part 2 of the quality assurance requirements.¹⁴ The SIP was conditionally approved given the above-mentioned issues were addressed prior to final rulemaking. At this stage, public comments on EPA's final rulemaking were still under review.

(3) Low-Level Source Issues

During the winter of 1979 and 1980, there were five measured violations of the 24-hour standard of 0.14 ppm in Magna. In addition, during the winter of 1981 there were two measured violations of the same standard at the Beach monitor located near the smelter. The highest concentration at the site was 0.19 ppm. As a result of these observed violations, the State's control strategy was to demonstrate attainment at these receptors. Several studies conducted in the area attributed the violations to low-level fixed stack sources and fugitive emissions. The low-level emissions inventory for the non-fugitive sources from this time period are shown below:

Table 2: Emissions inventory of non-fugitive sources

Source	Emissions (lbs/hr)	
	1979	1983
Magna Heat Treater	454	136
Arthur Heat Treater	454	136
Refinery	354	103
Boiler	714	828
Boilers	375	401
Total	2,351	1,604

¹² Utah State Implementation Plan, Section 4.3.2., Regulation for Control of Main Stack SO₂ Emissions (Kennecott Mineral Company), August 16, 1981.

¹³ Approval and Promulgation of State Implementation Plans, 40 CFR Part 52 and 40 CFR Part 81.

¹⁴ Approval and Promulgation of State Implementation Plans, 40 CFR Part 52 and 40 CFR Part 81.

1 The State required a 70% emission reduction from the smelter's low-level sources and required
2 improved fugitive emission capture practices at the smelter. The effectiveness of the control
3 strategy was demonstrated via modeling efforts by the State. The modeling estimate predicted
4 attainment of the SO₂ standards by December 1982. EPA conducted an independent modeling
5 effort to verify the State's findings and determined that the results agreed with the State's result
6 at Magna, but the Beach monitor showed some variability.

7
8 Since the fugitive emissions and the reduction expected by December 1982 could not be reliably
9 quantified, the State submitted information on January 25, 1983, which described the control
10 practices on fugitive emissions implemented at the smelter since the 1981 violations and
11 included a qualitative analysis of the expected effects of those practices. The State's conclusions
12 regarding attainment of the standards in the vicinity have been substantiated by measured data
13 since 1981. Based on this information, the EPA ruled in favor of the State's control strategy for
14 the low-level sources to attain and maintain the SO₂ standards in lower elevations.

15 (4) Stack Height Credit

16 Under the 1982 stack height regulations,¹⁵ stack height credit can be calculated in the following
17 three methods¹⁶: (1) de minimis height (stack less than 65 meters); (2) mathematical formulas; or
18 (3) physical demonstrations. The State calculated its GEP stack height according to a fluid
19 modeling demonstration. The demonstration did not fully comply with EPA's 1982 regulations¹⁷
20 because no specific percentage of increased concentrations was measured. However, based on
21 the best engineering judgment of EPA technical staff, the source apparently could demonstrate at
22 least a 40% increase in concentrations using the approach in the 1982 regulations. Due to the
23 GEP regulation being under litigation and its uncertain status¹⁸, EPA concluded that it would be
24 futile to require the source to perform additional fluid modeling demonstrations based on the
25 1982 regulations.

26 iv) 1985 Interim SO₂ SIP Approval

27 On February 20, 1985, EPA proposed interim approval of the 1981 SIP on the condition that the
28 State of Utah agreed to satisfy all procedural and substantive requirements of the stack height
29 regulations once any further regulations were promulgated or the existing regulations were

¹⁵ Stack height Regulations, February 8, 1982, 47 FR 5864, www.govinfo.gov/content/pkg/FR-1982-02-08/pdf/FR-1982-02-08.pdf.

¹⁶ Method of Determining GEP Stack Height, February 8, 1982, 47 FR 5865, www.govinfo.gov/content/pkg/FR-1982-02-08/pdf/FR-1982-02-08.pdf.

¹⁷ Stack height Regulations, February 8, 1982, 47 FR 5864, www.govinfo.gov/content/pkg/FR-1982-02-08/pdf/FR-1982-02-08.pdf.

¹⁸ Sierra Club vs. EPA, 719 F.2d 436, www.casemine.com/judgement/us/5914c378add7b049347c6b6f.

upheld on appeal.¹⁹ For the final approval of the SIP, the State was required to promulgate additional SIP provisions committing to the following actions:

- In the event EPA promulgates new regulations with requirements different from those in the 1982 regulations, the State of Utah will, within nine months of such promulgation, submit a demonstration of the GEP stack height under the new regulations and, based on that demonstration, submit either: (a) a demonstration that the SIP adequately assures attainment when that height is taken into account; or (b) a SIP revision demonstrating attainment.
- In the event the 1982 regulations are upheld on appeal, the State will submit a new fluid modeling study meeting the requirements of those regulations within nine months of the decision.

v) 1986 GEP Stack Height SIP Submittal

The Utah GEP Stack Height SIP was submitted by the Governor in a letter dated May 2, 1986.²⁰ The submittal included regulations to address:

- GEP stack height credit and dispersion techniques;
- a new Section 17 of the SIP that listed all existing stacks in Utah greater than 65 meters; and
- a technical support document for Section 17 including the Kennecott Magna stack analysis.

The Kennecott stack height credit was a significant component of the Utah SO₂ SIP emission limits conditionally approved on February 20, 1985.

vi) Applicability of the NSPS Regulation

The federal New Source Performance Standards (NSPS) regulation for primary copper smelters (40 CFR 60 NSPS Subpart P) applies to any such facility that commences construction or modification after October 16, 1974.^{21, 22} Modification generally means any physical or operational changes which results in an increase in the emission rate to the atmosphere.

The Kennecott smelter expansion/modification began in the early 1970's, with a commitment to the 1,215-foot stack in 1973 and completion of the project in 1977. The acid plant system resulted in an increase from 60% sulfur capture to 86%, reducing sulfur emissions by

¹⁹ Approval and Promulgation of State Implementation Plans – Utah SO₂ Plan, February 20, 1985, 50 FR 7059, www.govinfo.gov/content/pkg/FR-1985-02-20/pdf/FR-1985-02-20.pdf.

²⁰ Utah SIP, Section XVIII, Demonstration of GEP Stack Height, May 2, 1986.

²¹ Standards of performance for Primary Copper Smelters, 42 FR 37937, July 25, 1977; www.govinfo.gov/content/pkg/FR-1977-07-25/pdf/FR-1977-07-25.pdf.

²² Applicability and designation of affected facility, 40 CFR 60.160, www.ecfr.gov/current/title-40/section-60.160.

1 approximately 65%. Based on this information, the EPA concluded that the 1970's Kennecott
2 expansion/modification did not subject the smelter to 40 CFR 60 NSPS Subpart P requirements.

3 vii) Analyses of the Stack Height SIP Submittal

4 The Kennecott stack height analyses were undertaken to comply with the July 8, 1985, stack
5 height regulations, as well as the conditions specified in the approval of the Utah SO₂ SIP.²³
6 Kennecott originally had two 400-foot stacks (grandfathered stack height) from which SO₂
7 emissions from the smelter were vented. The 1970's expansion/modification included the
8 replacement of the two 400-foot stacks with a single 1,215-foot stack. The GEP formula height
9 ($H + 1.5 L$), considering the nearby buildings, is 212.5-foot.

10
11 The initial Kennecott GEP demonstration was submitted on May 2, 1986, with subsequent
12 submittals on October 6, 1986, December 3, 1986, November 13, 1987, and May 11, 1988.

13 There were two basic parts to the Kennecott analysis:

- 14 • The GEP demonstration – which consisted of three subparts: a fluid modeling protocol,
15 the fluid modeling results, and an evaluation of the fluid modeling results with respect to
16 the stack height regulations.
- 17 • A Best Available Retrofit Technology (BART) analysis – performed if the source
18 contended that the NSPS emission limits were infeasible. Relevant factors for this
19 analysis include high cost-effectiveness ratio, excessive local community impact,
20 excessive plant impact, and infeasibility issues. Kennecott provided responses to all the
21 BART factors mentioned above. The cost effectiveness ratio and technical infeasibility
22 issues, however, were determined critical to this review because of their relationship to
23 the emission limitations used in the GEP analyses.

24 Because the Kennecott emissions, as established through MPR, were used in the 1981 SO₂ SIP,
25 EPA's primary concern with the use of any emission rate in the demonstration of GEP was
26 ensuring protection of the NAAQS. The basic concept behind GEP is to prevent sources from
27 using illegal dispersion techniques to avoid emissions controls.

28
29 Kennecott provided extensive data on its GEP analyses.²⁴ To summarize, the GEP demonstration
30 showed that the existing stack height of 1,215 feet met the 40% criterion due to terrain effects
31 and an exceedance of the NAAQS at MPR emission rates. MPR is a technique designed for
32 sources with variable emission rates (e.g., smelters). MPR allows for a frequency distribution of
33 emission rates which will permit extremely high emissions on rare occasions. The MPR
34 methodology was constructed around the recognition that any control strategy would have a

²³ Approval and Promulgation of State Implementation Plans – Utah SO₂ Plan, February 20, 1985, 50 FR 7059,
www.govinfo.gov/content/pkg/FR-1985-02-20/pdf/FR-1985-02-20.pdf.

²⁴ GEP Demonstration and BART Analysis, 53 FR 48942.

1 predictable probability of allowing a violation of the NAAQS. The MPR was based upon
2 allowing a 26% probability of recording a violation. The GEP demonstration satisfies the
3 excessive concentration criteria in EPA's regulation if MPR reflects the proper emission rates.
4 After review, EPA concluded that Kennecott's analyses were acceptable, since Kennecott
5 performed a fluid modeling study consistent with existing guidance and the study was approved
6 by EPA.

7
8 Application of the level of control required by NSPS would reduce the emissions of SO₂ at
9 Kennecott during the stable process phase, but would not affect emission rates under startup,
10 shutdown, malfunction, and upset conditions. This is because the NSPS emission rate is for
11 normal operations and excludes such process conditions. MPR includes startup, shutdown,
12 malfunction, and upset conditions. From the Kennecott assessment, considering only long-term
13 averages, the cost portion is consistent with the tons of SO₂ reduction expected from similar
14 NSPS applications. In the Kennecott BART analysis, the controlling emissions for the
15 determination of GEP appeared to be those under upset, start-up, shutdown, and malfunction
16 conditions. Therefore, while there would be no difference in the emission rates under these
17 conditions as a result of meeting NSPS, there would be a substantial additional cost to control
18 these emissions.

19
20 In summary, the emissions at the smelter from startups, shutdowns, upsets, and malfunctions
21 were included in the MPR emission limits and would be considered in the NAAQS attainment
22 and GEP analyses. Application of NSPS technology would not affect these emission rates and
23 would, therefore, result in no change in demonstrating GEP. It may be possible to reduce annual
24 emissions by requiring additional controls on the smelter, but such reduction would have no
25 relevance to the limiting case for determination of GEP.

26
27 Given the above discussion, EPA proposed to approve²⁵ the Kennecott analysis in the Utah GEP
28 SIP submitted on May 2, 1986, with subsequent submittals on October 6, 1986, December 3,
29 1986, November 13, 1987, and May 17, 1988. However, EPA's review was conducted under a
30 specific assumption: that the emission rate(s) in the SO₂ SIP was sufficient to demonstrate
31 attainment. That assumption followed another critical assumption: that Kennecott owned or
32 controlled the lands in the upper elevation for which no monitoring data exists to demonstrate
33 attainment of the NAAQS.

34
35 Only one comment was received in response to the December 5, 1988, Federal Register which
36 proposed approval of the Kennecott GEP demonstration. The comment was from Kennecott in
37 support of this action. However, prior to publication of the proposed Federal Register approval,

²⁵ Approval and Promulgation of State Implementation Plans: Utah; Stack Height Analyses and Regulations, 53 FR 48942, December 5, 1988, www.govinfo.gov/content/pkg/FR-1988-12-05/pdf/FR-1988-12-05.pdf.

1 EPA received a letter from a landowner in the Oquirrh Mountains expressing concerns about the
2 lack of ambient monitoring in the nonattainment area. This was EPA's first documented
3 information on public access in the nonattainment area other than the Kennecott operation. EPA
4 proceeded to continue its evaluation of the State submittal and to publish its position on the GEP
5 demonstration based on the State submittal but initiated a reevaluation on land ownership above
6 the 5,600 feet elevation in the Oquirrh Mountains. Documentation on the claim of
7 landownership, other than that of the Kennecott operations, was provided by Howard Haynes,
8 Jr., in March 1989.²⁶

9 viii) 1981 SO₂ and 1986 GEP SIP Reassessment

10 Data from the Salt Lake County and Tooele County Assessor offices showed over 80 landowners
11 in the nonattainment area. Kennecott also conducted independent research and verified the list of
12 landowners. One of the critical assumptions of the conditional approval of the 1981 SO₂ SIP and
13 the emission rate was Kennecott's ownership or control of those lands in the potential
14 nonattainment area in the Oquirrh Mountains. The land ownership research revised the EPA's
15 earlier assumptions on the adequacy of the 1981 SO₂ and the 1986 GEP Stack SIPs.
16

17 In response, EPA began discussions with Kennecott and the State to resolve these issues and
18 outline a path forward for addressing the SO₂ and GEP SIPs. During these negotiations, the State
19 was also in the process of developing the PM₁₀ SIP for the Salt Lake County nonattainment area.
20 This process identified SO₂ as a key precursor to PM₁₀ pollution. Sulfates formed from SO₂
21 emissions are among the most common secondary particles contributing to PM₁₀ nonattainment.
22 Kennecott's smelter alone was responsible for 56% of the county's total PM₁₀ emissions,
23 including both primary and secondary particles.
24

25 The State adopted the PM₁₀ SIP in August 1991 and submitted it to the EPA in November of the
26 same year²⁷. The SIP imposed significant SO₂ emission reductions across Kennecott's operations
27 including the mine, concentrator, refinery, power plant, and smelter. The allowable smelter SO₂
28 emissions were reduced from 76,000 tons per year (tpy) or 18,000 lbs/hr annual average as set by
29 the 1981 SO₂ and 1986 GEP SIPs, to 18,500 tpy. This new limit included fugitive emissions and
30 applied to the entire smelter operation. The previous 76,000 tpy cap applied only to emissions
31 from smelter processing units and SO₂ removal systems vented through the 1,215-foot stack and
32 did not account for fugitive emissions. Under the revised PM₁₀ SIP, the stack-specific limit was

²⁶ Approval and Promulgation of State Implementation Plans: Utah; Stack Height Analyses and Regulations and SO₂ Nonattainment Plan, 59 FR 239, December 14, 1994, www.govinfo.gov/content/pkg/FR-1994-12-14/html/94-30607.htm.

²⁷ Approval and Promulgation of Air Quality Implementation Plan: Utah; Revision to the State Implementation Plan Addressing PM₁₀ for Salt Lake and Utah County, July 8, 1994, https://archives.federalregister.gov/issue_slice/1994/7/8/35035-35044.pdf.

lowered to 14,191 tpy, encompassing only emissions from the processing units and pollution control equipment.

ix) 1991 GEP and 1992 SO₂ SIP Submittals

On November 15, 1990, The CAA was amended to address issues like acid rain, urban air pollution, toxic air emissions, and stratospheric ozone depletion. The amendments also established a national operating permits program and strengthened enforcement provisions.²⁸ On May 15, 1992, the Governor of Utah submitted a revision to Section 9, Part B of the SO₂ SIP to address the amendment to the CAA requirement that a SIP revision be submitted by May 15, 1992, for any area that did not have a fully approved SIP as the 1981 SO₂ SIP was only conditionally approved. The significant changes in this SIP revision from that of the 1981 submittal were as follows:

- Revision to the GEP Stack height Section 16 set an allowable emissions limit of 14,191 tpy for the 1,215-foot main stack, as derived in the PM₁₀ SIP.²⁹ This limit reflects the use of double-contact acid plant technology, improved capture of fugitive emissions, and enhanced operation and maintenance.
- The MPR emission limitations and assumptions were removed and replaced with the emission limitation that can be achieved using the NSPS technology, double contact acid plant, or the equivalent of NSPS. NSPS is the presumptive norm for RACT for this facility. The SO₂ SIP was revised to reference the same emission limitations as those stated in the PM₁₀ SIP.
- The 1971 SO₂ NAAQS³⁰ are 0.14 ppm for the 24-hour primary standard, and 0.5 ppm for the 3-hour secondary standard. The 24-hour impact analysis was a rollback analysis that compared the smelter emissions in 1991 (PM₁₀ SIP emission limitation) with the 1979 emissions. The State had monitoring data showing attainment at Lake Point (an area originally defined as ambient air and owned by the Bureau of Land Management but now owned by Kennecott) where exceedances were recorded. The Lake Point site could be considered representative of the closest point in the elevated terrain that would be impacted by the tall stack emissions. Demonstrating attainment at Lake Point would technically support the attainment elsewhere in the elevated terrain that is considered ambient air. The area considered ambient air in the elevated terrain is a significant distance downwind from Lake Point.
- The PM₁₀ SIP emission limitation was based on a 24-hour SO₂ limit; this emission limitation was to be achieved through a given lbs/hr calculated on a 6-hour average. The 24-hour limit was considered “controlling” for PM₁₀ and SO₂ (i.e., the 24-hour limitation

²⁸ 1990 Clean Air Act Amendment, www.epa.gov/clean-air-act-overview/1990-clean-air-act-amendment-summary.

²⁹ 1994 Revision to the State Implementation Plan Addressing PM₁₀ for Salt Lake and Utah County, https://archives.federalregister.gov/issue_slice/1994/7/8/35035-35044.pdf.

³⁰ Table of Historical SO₂ NAAQS, www3.epa.gov/ttn/naaqs/standards/so2/s_so2_history.html.

1 was believed to be the level of control necessary for PM₁₀ attainment, as well as for the
2 SO₂ attainment demonstration). The SO₂ SIP established a 3-hour limitation and verified
3 that such limitation would protect the 3-hour NAAQS.

- 4 • Section 4.2 of the Utah Air Conservation Rules was revised to include a 24-hour
5 averaging period for the sulfur content of coal, fuel oil, and fuel mixtures, and to specify
6 the ASTM methods to be used to demonstrate compliance with the limitation and
7 reporting requirement. The previous rule specified a limit for the sulfur content of fuels
8 but did not specify an averaging time or specific ASTM methods. Section 4.6 was also
9 revised to include a 3-hour averaging time for Sulfur Burning Production Sulfuric Acid
10 Plants.
- 11 • Specific regulations which were provided for special consideration (including
12 malfunction provisions) on the smelter fluctuating operation were removed. Malfunction
13 provisions for the Kennecott smelter operation were the same as for any stationary source
14 in Utah. This issue was addressed during the PM₁₀ SIP development and was approved
15 under the PM₁₀ SIP federal approval process. These regulation impacts were clarified in
16 the SO₂ SIP revision.

17 x) 1994 SO₂ and GEP SIP Approval

18 On December 14, 1994, EPA approved the SO₂ and GEP stack height SIPs, as they were
19 consistent with the EPA guidance.³¹ General SO₂ regulations that were previously determined as
20 deficient with respect to meeting the statewide SO₂ SIP requirements were also approved.

21
22 EPA advised the State to ensure consistency with the State's permits and the federally
23 enforceable SIP. The State's permit program was part of the federally approved SIP. The final
24 approval of SO₂ and GEP stack height SIPs also made the emission limitations for these
25 stationary sources federally enforceable. EPA advised the State that if different emission
26 limitations exist, EPA will enforce the more stringent of the two or more emission limitations.
27 This is to ensure that the attainment demonstration of a nonattainment area is maintained. It is
28 therefore critical that the State maintain consistent emission limitations in permits and in
29 federally approved SIPs and update the emission limitations sections of these plans to ensure
30 clarity and consistency.

³¹ Approval and Promulgation of State Implementation Plans, Utah Stack Height Analyses and Regulations,
December 14, 1994, 59 FR 18341,
www.federalregister.gov/documents/search?conditions%5Bterm%5D=59+FR+18341.

1 xi) 1999 SO₂ Draft Maintenance Plan Submission

2 In November 1999, a draft SO₂ maintenance plan and redesignation request³² for Salt Lake and
3 Tooele counties was submitted to the EPA for review. The draft reported that there had been no
4 violations of the 1971 SO₂ NAAQS in the nonattainment area. It credited this to improvements
5 made at the Kennecott smelter, which were sufficient to both achieve and maintain compliance
6 with the standard.

7 The draft also noted that other major SO₂ sources in the nonattainment area were addressed
8 through the PM₁₀ SIP, which reduced emissions to levels significantly lower than those in the
9 1980s. These SO₂ limits were federally enforceable, and no additional control measures were
10 considered necessary to maintain the NAAQS.

11 In higher elevation areas, the Kennecott smelter was identified as the only potential source of
12 concern. However, based on a rollback of earlier modeling data and a straight rollback analysis,
13 the current emission limits in the SO₂ SIP for Kennecott are determined to be more than adequate
14 to ensure continued compliance in those areas. The plan further stated that these limits will
15 remain federally enforceable and are not expected to increase over the next decade.

16 xii) EPA Review of the 1999 Draft Maintenance Plan

17 The EPA reviewed the State's submission and identified several deficiencies in the maintenance
18 plan in a letter dated December 17, 1999.³³ These deficiencies are summarized below:

- 19 ● The letter emphasized the need for a thorough review of a historical, current, and future
20 allowable emissions inventory for SO₂ sources in the nonattainment area to determine if
21 further dispersion modeling is needed.
- 22 ● A screening analysis was recommended to determine the need for further dispersion
23 modeling. This involved reviewing emissions, performing screening modeling if future
24 emissions were significant, and potentially more refined modeling if the screening
25 modeling indicated violations.
- 26 ● The letter included several comments on the enforceability of emission limits within the
27 maintenance plan, stressing that limits must remain in effect, be federally enforceable,
28 and be consistent with NAAQS timeframes. Specific comments were made regarding
29 Kennecott's emission limits, stating the State must commit to current emission levels in
30 place or analyze and project growth increase.
- 31 ● The letter deemed the contingency measures outlined in the draft maintenance plan to be
32 insufficient, as the draft lacked clear identification of potential measures, a schedule and

³² Draft SO₂ Maintenance Plan and Redesignation Request, November 1999.

³³ December 17, 1999, Letter from the EPA Region 8 in response to Utah's draft maintenance plan submission.

1 procedure for adoption and implementation, and a specific time limit for State action,
2 with a commitment to fully implement corrective measures within one year of a NAAQS
3 violation.

- 4 ● The EPA noted that the draft maintenance plan does not provide a projected maintenance
5 year which is a required minimum of 10 years from the approved maintenance plan. The
6 maintenance plan shall include attainment and maintenance year emissions inventories
7 and explain how maintenance will be ensured.
- 8 ● Additionally, the letter requested clarification regarding the operation and replacement of
9 SO₂ monitors at the Lakepoint site in 1992.

10 xiii) Developing Modeling Protocol

11 Since the EPA's review of the 1999 draft Maintenance Plan, the State has developed a modeling
12 protocol³⁴ to demonstrate attainment of the 1971 NAAQS in the nonattainment area. The
13 protocol outlined the procedures, assumptions, data, and models to be used by the State to predict
14 ambient SO₂ concentrations from five petroleum refineries in Salt Lake and Davis counties. The
15 modeling analysis was requested by the EPA as a supplement to Utah's earlier effort to
16 redesignate Salt Lake County and part of Tooele County to attainment.

17
18 The EPA found the technical aspects of the modeling protocol acceptable, including the use of
19 alternative models, overlapping modeling domains, nearby sources, urban/rural dispersion
20 coefficients, background concentrations (with a request for Kennecott's annual emissions for
21 documentation), meteorological data, and receptor locations³⁵. However, the modeling protocol
22 did not include specific information regarding emission points, such as emission rates, caps,
23 routine flare emissions, stack heights, and enforceable measures. The State agreed to address
24 these concerns in the Maintenance Plan and received conditional approval from the EPA for the
25 modeling protocol³⁶.

26 xiv) 2004 SO₂ Draft Maintenance Plan Submission

27 The State drafted a new SO₂ Maintenance Plan³⁷ for the Salt Lake County and Tooele County
28 nonattainment areas and submitted it to the EPA for review on August 20, 2004. The newly
29 drafted Plan stated that there had been no violation in the nonattainment area of any primary or
30 secondary NAAQS for SO₂ since 1981. This lack of monitored violations was attributed to the
31 permanent and enforceable emission reductions at the Kennecott main stack which led to the

³⁴ October 4, 2001, SO₂ Modeling Protocol, State submittal to the EPA.

³⁵ November 14, 2001, EPA Review of October 4, 2001 Modeling Protocol for Salt Lake County Sulfur Dioxide (SO₂) Redesignation Study, EPA letter to the State.

³⁶ November 14, 2001, EPA Review of October 4, 2001 Modeling Protocol for Salt Lake County Sulfur Dioxide (SO₂) Redesignation Study, EPA letter to the State.

³⁷ January 5, 2005, Sulfur Dioxide Maintenance Provisions for the Salt Lake-Tooele Sulfur Dioxide Nonattainment Area. Section IX.B.6.

1 area’s original nonattainment status. Based on this, the State requested redesignation of the
2 nonattainment area. No modeling analysis was included in the draft Maintenance Plan in an
3 effort to demonstrate attainment.

4 **xv) EPA Review of the 2004 Draft Maintenance Plan**

5 In a letter dated November 4, 2004, the EPA outlined their findings and comments for the draft
6 Maintenance Plan.³⁸ The letter stated that based on the preliminary review of the draft, several
7 fundamental requirements for maintenance plans and redesignations to attainment had not been
8 satisfied. The draft also did not demonstrate maintenance, project a maintenance date, or contain
9 sufficient contingency measures. On January 4, 2005, the EPA followed up in a letter
10 recommending deferred action on the Maintenance Plan and redesignation request due to the
11 significant unaddressed issues.³⁹ On April 19, 2005, the State formally submitted the SO₂
12 Maintenance Plan for Salt Lake County and parts of Tooele County.⁴⁰ The EPA never formally
13 acted on the SO₂ Maintenance Plan. In a letter dated November 12, 2019, the State withdrew
14 “UT SO₂ Redesignation and Maintenance Plan for Salt Lake City and UT SO₂ Redesignation and
15 Maintenance Plan for parts of Tooele County,” both submitted on April 19, 2005⁴¹. The letter
16 stated that “the Utah Division of Air Quality is working closely and cooperatively with the EPA
17 to craft an approvable maintenance plan so EPA can act on it promptly following submission.”

18 **IX.B.12.c Redesignation Requirements**

19 Section 107(d)(3)(E) of the Act outlines five requirements that a nonattainment area must satisfy
20 before an area may be eligible for redesignation from nonattainment to attainment. Table 3
21 identifies the redesignation requirements as they are stated in Section 107(d)(3)(E) of the Act.
22 Each element will be addressed in turn, with the central element being the maintenance plan
23 found in Subsection IX.B.12.d below.
24
25

³⁸ November 4, 2004, Sulfur Dioxide Maintenance Provisions, EPA letter to the State.

³⁹ January 4, 2005, Sulfur Dioxide Maintenance Provisions, EPA letter to the State.

⁴⁰ April 19, 2005, Sulfur Dioxide Maintenance Provisions for the Salt Lake-Tooele Sulfur Dioxide Nonattainment Area. Section IX.B.6, Governor’s letter to the EPA.

⁴¹ November 12, 2019, State of Utah withdrawing the maintenance plan, Governor’s letter to the EPA.

1 Table 3: Requirements to Redesignation in the Federal Clean Air Act

Category	Requirement	Reference	Addressed in Section
Attainment of Standard	Most recent two complete consecutive years of quality-assured monitoring data must show that violations of the standard are no longer occurring ⁴²	CAA §107(d)(3)(E)(i)	IX.B.12.c(i)
Approved SIP	The applicable implementation plan for the area must be fully approved	CAA §107(d)(3)(E)(ii)	IX.B.12.c(ii)
Permanent and Enforceable Reductions	The State must be able to reasonably attribute the improvement in air quality to emission reductions that are permanent and enforceable	CAA §107(d)(3)(E)(iii) Calcagni memo (Sec. 3, para 2) ⁴³	IX.B.12.c(iii)
Section 110 and Part D Requirements	The State must verify that the area has met all requirements applicable to the area under Section 110 and Part D	CAA: §107(d)(3)(E)(v), §110(a)(2), Sec 171	IX.B.12.c(iv)
Maintenance Plan	The Administrator has fully approved the Maintenance Plan for the area as meeting the requirements of CAA §175A	CAA §107(d)(3)(E)(iv)	IX.B.12.c(v) and IX.B.12.d

2 i. The Area Has Attained the 1971 SO₂ NAAQS

3 *CAA 107(d)(3)(E)(i) - The Administrator determines that the area has attained the national*
4 *ambient air quality standard.* To satisfy this requirement, the State must show that the area is
5 attaining the applicable NAAQS. According to EPA's guidance⁴⁴ concerning area
6 redesignations, there are generally two components involved in making this demonstration: (1)
7 relies upon ambient air quality data which should be representative of the area of highest
8 concentration and should be collected and quality assured in accordance with 40 CFR 58; and
9 (2) relies upon supplement air quality modeling. Each component will be addressed in turn.

⁴² Memorandum From Sheldon Myers, Director, EPA Office of Air Quality Planning and Standards to Regional Office Air Division Directors, "Section 107 Designation Policy Summary" April 21, 1983, <https://www.federalregister.gov/d/2014-09458/p-92>.

⁴³ John Calcagni, September 4, 1992, EPA Memorandum "Procedure for Processing Requests to redesignate Areas to Attainment" https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

⁴⁴ John Calcagni, September 4, 1992, EPA Memorandum "Procedure for Processing Requests to Designate Areas to Attainment" https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

(1) Ambient Air Quality Data (Monitoring) and Utah's Monitoring Network

The NAAQS for the 1971 SO₂ standard are as follows⁴⁵: primary standards include an annual (calendar year) arithmetic mean of 0.03 ppm and a 24-hour midnight to midnight block average of 0.14 ppm. An exceedance of the annual standard is a violation of the NAAQS, as are two exceedances of the 24-hour standard in any one calendar year at any one monitor site. In addition, there is a secondary standard of 0.5 ppm measured as a 3-hour block average, calculated from successive non-overlapping 3-hour blocks starting at midnight. Two exceedances of the 3-hour standard in a calendar year at any one monitoring site is a violation of the NAAQS. In order to demonstrate attainment of these standards, the State must collect eight consecutive calendar quarters (two years) of ambient data that is below the levels outlined above.⁴⁶ It is important to note that although the current SO₂ standards^{47, 48} are significantly more stringent than those established in 1971, they are being met with a substantial margin of compliance.

The Division's Air Monitoring section maintains an ambient air monitoring network in Utah in accordance with 40 CFR 58 that collects both air quality and meteorological data. Figure 1 shows the location of both historical and present SO₂ monitoring sites in the state. The data collected at these sites are routinely audited by the EPA and meets the agency's requirements for air monitoring networks.

⁴⁵ 40 CFR 50.4, National primary ambient air quality standards for sulfur oxides (sulfur dioxide), <https://www.ecfr.gov/current/title-40/section-50.4>.

⁴⁶ Memorandum From Sheldon Myers, Director, EPA Office of Air Quality Planning and Standards, to Regional Office Air Division Directors, "Section 107 Designation Policy Summary" April 21, 1983.

⁴⁷ 40 CFR 50, Review of the Primary National Ambient Air Quality Standards for Sulfur Oxides, www.federalregister.gov/documents/2019/03/18/2019-03855/review-of-the-primary-national-ambient-air-quality-standards-for-sulfur-oxides.

⁴⁸ 40 CFR 50, Review of the Secondary National Ambient Air Quality Standards for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter, www.govinfo.gov/content/pkg/FR-2024-12-27/pdf/2024-29463.pdf.

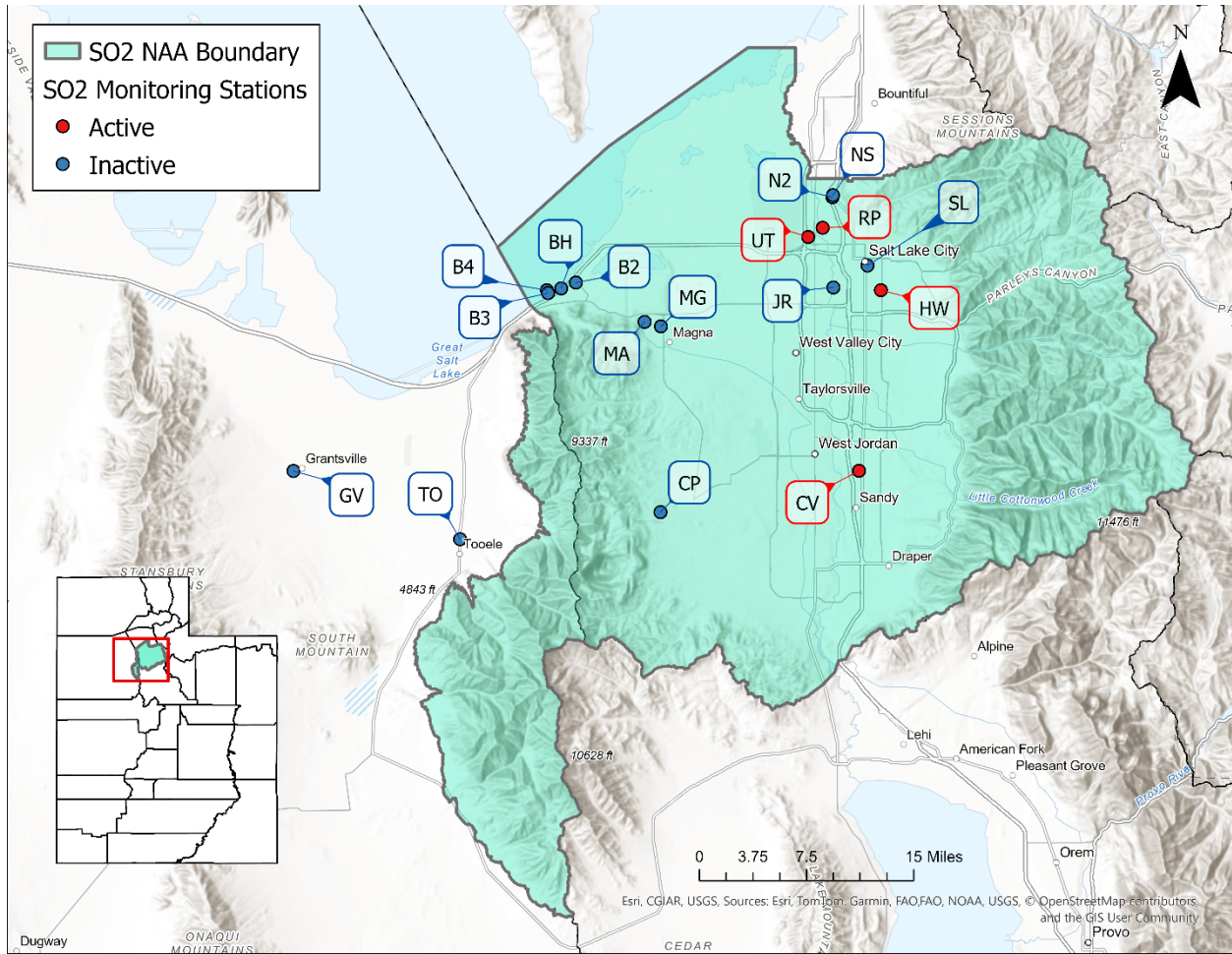


Figure 1: SO₂ nonattainment area boundary and monitoring network

Table 4 shows the SO₂ monitor values from 1981 to 2024. The data was downloaded from EPA's Air Quality System (AQS) database. Monitors that did not have three consecutive years of data available were excluded from this table. As shown in Table 4, a violation of the 24-hour standard was recorded at two monitors in 1981. Since then, there has been no recorded violation of the 1971 SO₂ standards in the nonattainment area.

1 Table 4: Nonattainment area monitoring data from 1981 – 2024

Year	AQS Site Number	1 st 24-hr Max (ppm)	Mean Annual Standard* (ppm)	3-hr Arithmetic Mean* (ppm)
1971 SO₂ Standards		0.14	0.03	0.5
1981	TO, MG, BH, SL, CP	0.160	0.034	0.034
1982	NS, JR, MG, BH, SL, CP	0.086	0.025	0.026
1983	JR, MG, BH, SL, CP	0.113	0.015	0.015
1984	N2, MG, SL, CP	0.080	0.013	0.013
1985	N2, MG, SL, CP	0.080	0.013	0.013
1986	B2, N2, MG, SL, CP	0.096	0.013	0.013
1987	B2, N2, MG, SL	0.109	0.027	0.028
1988	B2, N2, MG, SL	0.112	0.022	0.022
1989	B2, N2, MG, SL	0.111	0.019	0.019
1990	B2, N2, MG, SL	0.089	0.018	0.019
1991	B2, N2, MG, B3, SL	0.079	0.014	0.140
1992	N2, MG, B3, B4, SL	0.129	0.015	0.015
1993	N2, MG, B4, SL, GV	0.067	0.013	0.013
1994	N2, MG, B4, SL, GV	0.046	0.011	0.011
1995	N2, MG, B4, GV	0.066	0.004	0.004
1996	N2, MG, B4, GV	0.022	0.004	0.004
1997	N2, MG, B4, GV	0.019	0.004	0.004
1998	N2, MG, B4	0.029	0.003	0.003
1999	N2, MG, B4	0.012	0.004	0.004
2000	N2, MG, B4	0.014	0.004	0.004
2001	N2, MG, B4	0.013	0.004	0.004
2002	N2, MG, B4	0.010	0.004	0.004
2003	N2, MG, B4	0.015	0.005	0.005
2004	N2, MG, B4	0.015	0.004	0.004
2005	N2, MG, B4	0.011	0.003	0.003
2006	N2, MG, B4	0.008	0.003	0.003
2007	N2, MG, B4	0.011	0.003	0.003
2008	N2, MG, B4	0.009	0.003	0.003
2009	N2, MG, B4	0.018	0.004	0.004
2010	N2, MG, B4, HW	0.012	0.004	0.004
2011	N2, MG, B4, HW	0.007	0.002	0.002
2012	N2, MG, B4, HW	0.008	0.003	0.003
2013	N2, MG, B4, HW	0.006	0.003	0.003
2014	HW	0.002	0.001	0.000

Year	AQS Site Number	1 st 24-hr Max (ppm)	Mean Annual Standard* (ppm)	3-hr Arithmetic Mean* (ppm)
2015	HW	0.004	0.000	0.000
2016	HW	0.002	0.001	0.001
2017	HW	0.002	0.000	0.000
2018	CV, HW, RP	0.002	0.001	0.001
2019	MA, CV, HW, RP, UT	0.005	0.001	0.001
2020	CV, HW, RP, UT	0.002	0.000	0.000
2021	CV, HW, RP, UT	0.003	0.001	0.001
2022	CV, HW, RP, UT	0.003	0.001	0.001
2023	CV, HW, RP, UT	0.003	0.001	0.001
2024	CV, HW, RP, UT	0.002	0.001	0.001

TO: 49-045-0001; MG: 49-035-1001; BH: 49-035-2002; SL: 49-035-3001; CP: 49-035-4001; N2: 49-035-0012; B2: 49-035-0005; B4: 49-035-2004; HW: 49-035-3006; CV: 49-035-2005; RP: 49-035-3010; UT: 49-035-3015; NS: 49-035-0007; JR: 49-035-0009; B3: 49-035-2003; GV: 49-045-0002; MA: 49-035-1007

*Monitoring data was obtained from the AQS database on August 13, 2025. Discrepancies may be present due to historical recordkeeping practices and rounding errors.

The time series plots presented below illustrate the monitored SO₂ concentration from 1981 to 2024 in the nonattainment area. The plots show a clear and consistent downward trend in monitored SO₂ concentrations over the 43-year period. This decline is evident for both the primary and secondary SO₂ standards, indicating improvements in air quality that benefit both public health (primary standard) and environmental welfare (secondary standard). In the plots, the applicable SO₂ standard is represented by a dotted line, providing a visual reference point for assessing compliance over time, suggesting a positive trajectory toward air quality improvement.

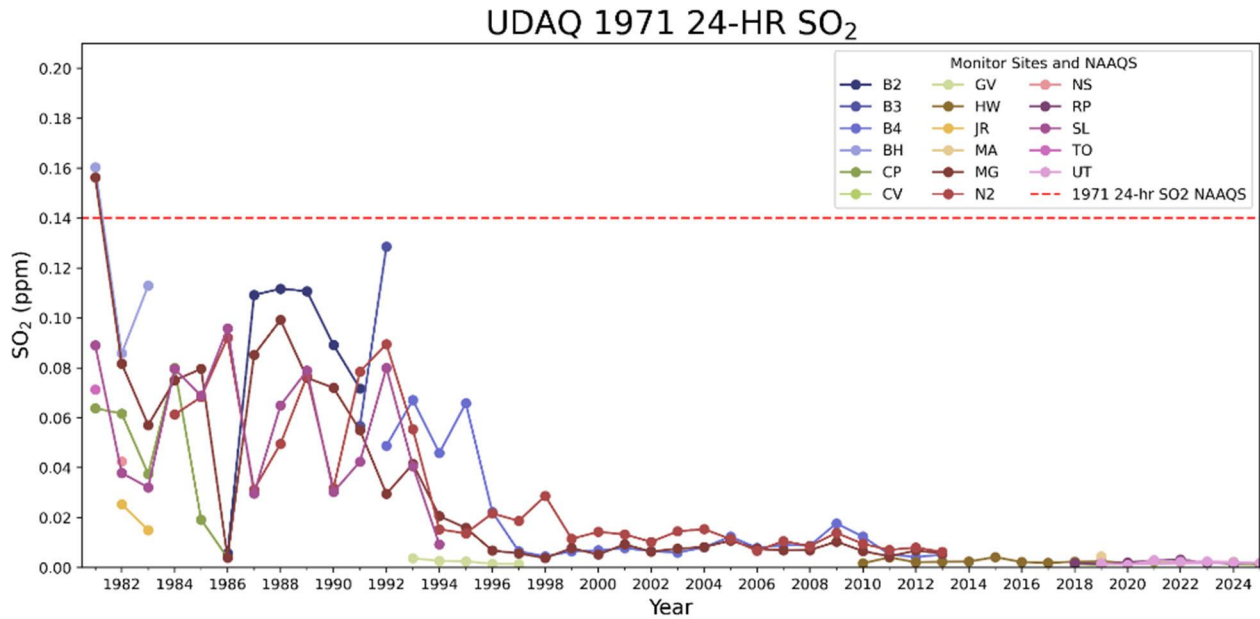


Figure 2: Monitored SO₂ values compared with 1971 24-Hour SO₂ standard

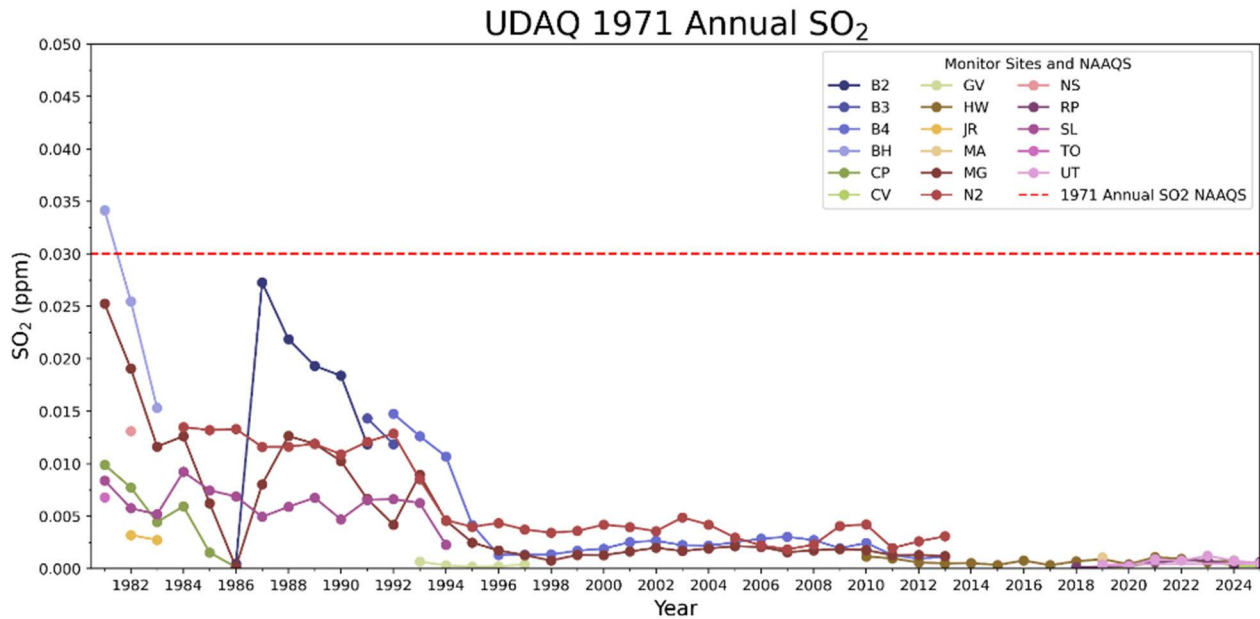


Figure 3: Monitored SO₂ values compared with 1971 Annual SO₂ standard

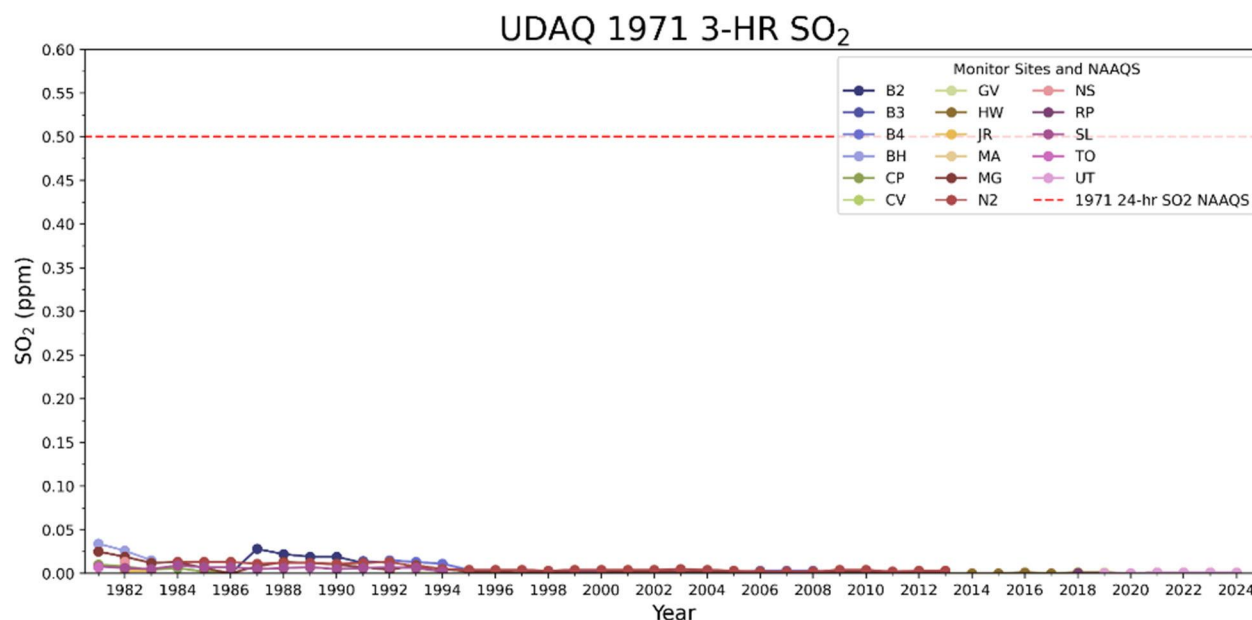


Figure 4: Monitored SO₂ values compared with 1971 3-hour SO₂ standard

(2) Modeling Element

EPA guidance⁴⁹ concerning redesignation requests and maintenance plans discusses the requirement that the area has attained the standard and notes that air quality modeling may be necessary to determine the representativeness of the monitored data. Areas that were designated nonattainment based on modeling will generally not be redesignated to attainment unless an acceptable modeling analysis indicates attainment. Dispersion modeling was conducted for the purpose of this maintenance demonstration to show compliance with the 1971 SO₂ NAAQS. Findings of the modeling analysis are summarized and discussed below. A detailed report of the modeling effort can be found in Appendix 1.

A. Introduction

The modeling effort was supported by Ramboll for use in the attainment demonstration. The model was run for all three 1971 standards. The modeling platform developed for this purpose incorporated a detailed modeling protocol, input from the Division and EPA Region 8 through a series of meetings, emissions data and stack characteristics for permitted sources provided by the Division, as well as relevant federal guidance on state implementation plan modeling, including the use of the AERMOD modeling system in accordance with 40 CFR Part 51, Appendix W.

⁴⁹ John Calcagni, September 4, 1992, EPA Memorandum "Procedure for Processing Requests to Redesignate Areas to Attainment" https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

A base year emissions inventory was provided by the Division, consisting of potential emissions and actual emissions for the most recent available year (2023) for sources in the airshed. The modeling demonstration includes consideration of a representative background concentration and the explicitly modeled impacts of six facilities in or near the nonattainment area. To maintain a conservative approach, the facilities were modeled based on their facility-wide allowable emission limits, which exceed the actual emissions by a considerable margin. These identified six facilities are:

- Kennecott Smelter and Refinery;
- Gadsby Power Plant;
- Tesoro Refinery;
- Chevron Refinery;
- Big West Refinery; and
- HF Sinclair Refinery.

The complete list of sources, site potentials to emit, and 2023 actual emissions for facilities in the nonattainment area and surrounding area are provided in Appendix 1.

Table 5: 1971 SO₂ Standards

Period	Standard	Value (ppm)	Value (µg/m ³)	Form	SIL* (µg/m ³)
3-Hour	Secondary	0.5	1,300	Not to be exceeded more than once per year (Highest Second High)	25
24-Hour	Primary	0.14	365	Not to be exceeded more than once per year (Highest Second High)	5
Annual	Primary	0.030	80	Annual mean; Not to be exceeded	1

*Significant Impact Level

Table 6: Background Design Value (DV)

Period	DV (ppb)	DV (µg/m ³)*
3-Hour	4.5	11.79
24-Hour	2.8	7.34
Annual	1.22	3.20

*Using the EPA conversion rate of 1 ppb SO₂ = 2.62 (µg/m³) SO₂

To aid in the modeling interpretation, three runs were performed for each standard:

- A “combined” run where effects of all emissions units are modeled at all receptors (including the effects of Kennecott emissions on its own property). This inclusion of on-

property impacts of emissions is a simple and conservative first run, designed to identify areas of refinement if needed, since not all modeled impacts using this approach can be compared to the NAAQS.

- A “Kennecott zero out” run where the emission rates of Kennecott emission units are set to zero. These runs may be used to evaluate NAAQS compliance at receptors inside the Kennecott fenceline.
- An “outside Kennecott” run where the receptors inside the Kennecott fenceline are excluded. These runs may be used to evaluate NAAQS compliance at all locations to which the public has access (i.e., not owned and controlled by Kennecott).

Note that the procedures regarding evaluation of ambient air for Kennecott are equally valid for the other five explicitly modeled facilities as well (e.g., effects of emissions from Tesoro emission units are not considered when evaluating NAAQS compliance at receptors on land owned and controlled by Tesoro where public access is effectively precluded). However, since modeled concentrations in northern Salt Lake County were well under the NAAQS, even within facility boundaries, the refined treatment of ambient air was not performed for those facilities.

B. 3-Hour Results

The results of the 3-hour modeling are shown in Table 7. Figure 2 and Figure 3 illustrate the impacts of nonattainment area-wide, and in the immediate vicinity of Kennecott. The concentrations reported are the highest second-high concentrations in any year, in accordance with the form of the NAAQS. The total impacts are the sum of the modeled value and the background value and are compared to the NAAQS.

Table 7: Results of 3-Hour Modeling

Scenario	Year	Modeled Value (µg/m ³)	Background Value (µg/m ³)	Total Impact (µg/m ³)	NAAQS (µg/m ³)
Combined	2020	935.96	11.79	947.75	1,300
Kennecott zero out	2022	7.11	11.79	18.90	
Outside Kennecott	2020	244.28	11.79	256.07	

Total impacts at all receptors are below the NAAQS, even when conservatively including Kennecott’s own impact on its own property. Indeed, as seen in Figure 3, the receptor with the highest impact is at the main smelter and refinery building itself, which is not in ambient air. When the impacts of the other facilities and background are evaluated at the Kennecott receptors (the zero out run), these impacts (18.90) are below the 3-hour SO₂ Significant Impact level (SIL) of 25 micrograms per cubic meter (µg/m³), demonstrating sources other than Kennecott have a de minimis impact at these receptors.

1
2 When considering the highest impacts (in the form of the standard) at all ambient air receptors
3 (outside Kennecott run), the impacts are less than 20% of the NAAQS. It is noted that these
4 results conservatively include the facility impacts within their fenceline for the other explicitly
5 modeled facilities. The analysis demonstrates that the cumulative impacts at locations of public
6 access are well below the level of the 3-hour SO₂ NAAQS throughout the nonattainment area.

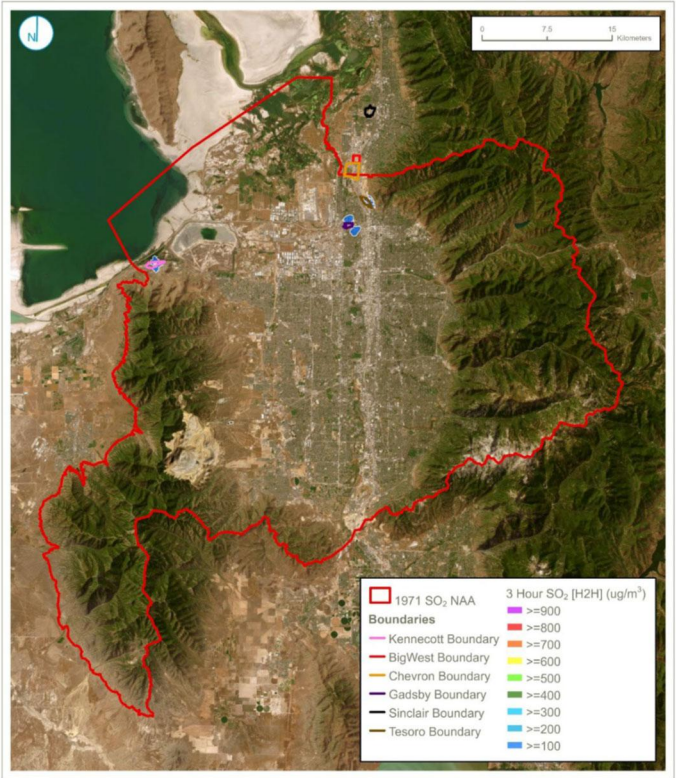


Figure 5: Impacts of 3-Hour SO₂ (H2H) throughout the nonattainment area.

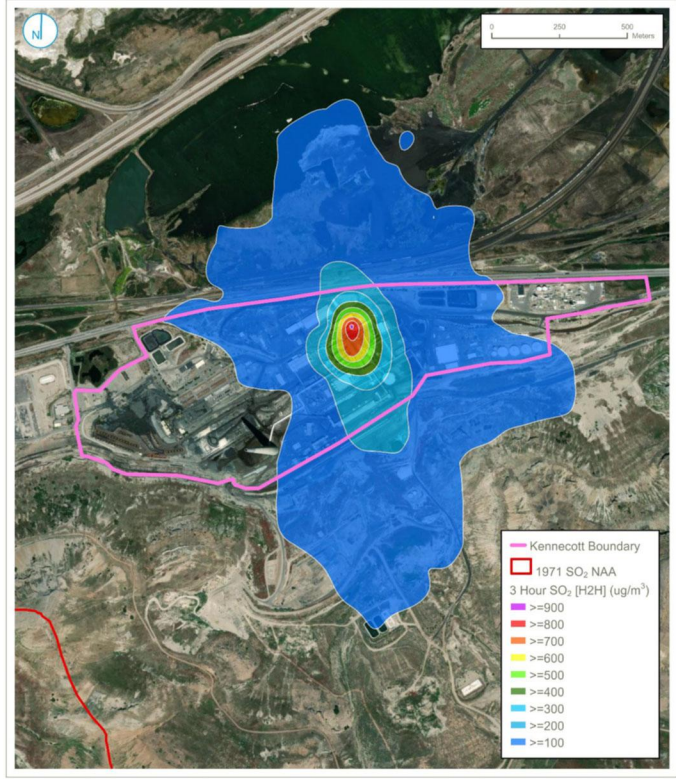


Figure 6: Impacts of 3-Hour SO₂ (H2H) in the vicinity of the Kennecott facility.

C. 24-Hour Results

The results of the 24-hour modeling are shown in Table 8. Figure 4 and Figure 5 illustrate the impacts nonattainment area-wide, and in the immediate vicinity of Kennecott. The concentrations reported are the highest second-high concentrations in any year, in accordance with the form of the NAAQS. The total impacts are the sum of the modeled value and the background value and are compared to the NAAQS.

Table 8: Results of 24-Hour Modeling

Scenario	Year	Modeled Value (µg/m³)	Background Value (µg/m³)	Total Impact (µg/m³)	NAAQS (µg/m³)
Combined	2024	513.85	7.34	521.19	365
Kennecott zero out	2024	1.20	7.34	8.54	
Outside Kennecott	2024	112.60	7.34	119.94	

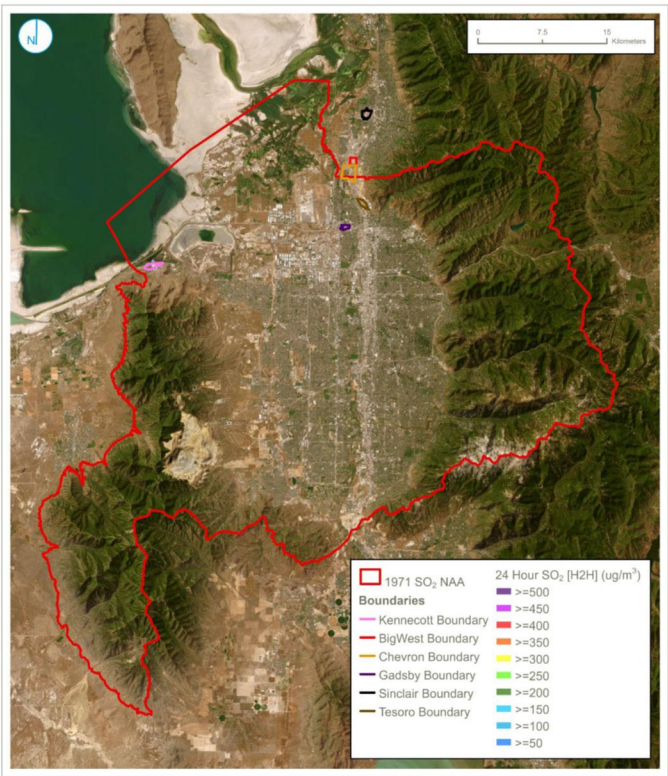


Figure 7: Impacts of 24-Hour SO2 (H2H) throughout the nonattainment area.

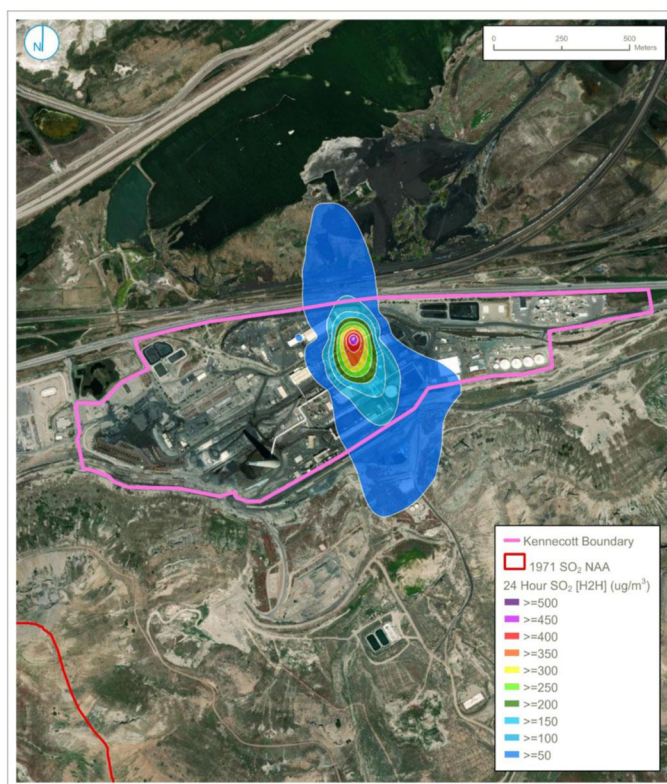


Figure 8: Impacts of 24-Hour SO₂ (H₂H) in the vicinity of the Kennecott facility.

There are two receptors on the Kennecott property that require additional refinement since they are not ambient air to Kennecott. Receptors at (399100, 4509000) and (399100, 4508900) have total impacts that, when including Kennecott emissions, exceed 365 $\mu\text{g}/\text{m}^3$. However, these two receptors are on the Kennecott property, with one on the footprint of the smelter building itself and one immediately adjacent to it. When the Kennecott emissions are excluded in the zero out run, the modeled impacts of the other facilities on the Kennecott property (1.20 $\mu\text{g}/\text{m}^3$) are below the level of the 24-hour SIL (5 $\mu\text{g}/\text{m}^3$), demonstrating that impacts from other facilities are de minimis for the 24-hour standard at these receptors. Accordingly, the 24-hour SO₂ NAAQS is satisfied at all points in the domain, both inside and outside the Kennecott property.

When considering the highest impacts (in the form of the standard) at all ambient air receptors (outside Kennecott run), the impacts are less than 33% of the NAAQS. It is noted that these results conservatively include the facility impacts within their fenceline for the other explicitly modeled facilities. The analysis demonstrates that the cumulative impacts at locations of public access are well below the level of the 24-hour SO₂ NAAQS throughout the nonattainment area.

D. Annual Results

The results of the annual modeling are shown in Table 9. Figure 6 and Figure 7 illustrate the impacts nonattainment area-wide, and in the immediate vicinity of Kennecott. Concentrations reported are the highest annual average in any year, in accordance with the form of the 1971 NAAQS. The total impacts are the sum of the modeled value and the background value and are compared to the NAAQS.

Table 9: Results of Annual Modeling

Scenario	Year	Modeled Value (µg/m ³)	Background Value (µg/m ³)	Total Impact (µg/m ³)	NAAQS (µg/m ³)
Combined	2024	55.00	3.20	58.20	80
Kennecott zero out	2022	0.02	3.20	3.22	
Outside Kennecott	2022	7.13	3.20	10.33	

Total impacts at all receptors are below the NAAQS, even when considering Kennecott's own impacts on its own property. Indeed, as seen in Figure 7, the receptor with the highest impact is at the main smelter and refinery building itself. When the impacts of the other facilities are evaluated at the Kennecott receptors, these impacts (0.02 µg/m³) are below the annual SO₂ SIL of 1 µg/m³, demonstrating sources other than Kennecott have a de minimis impact in this area.

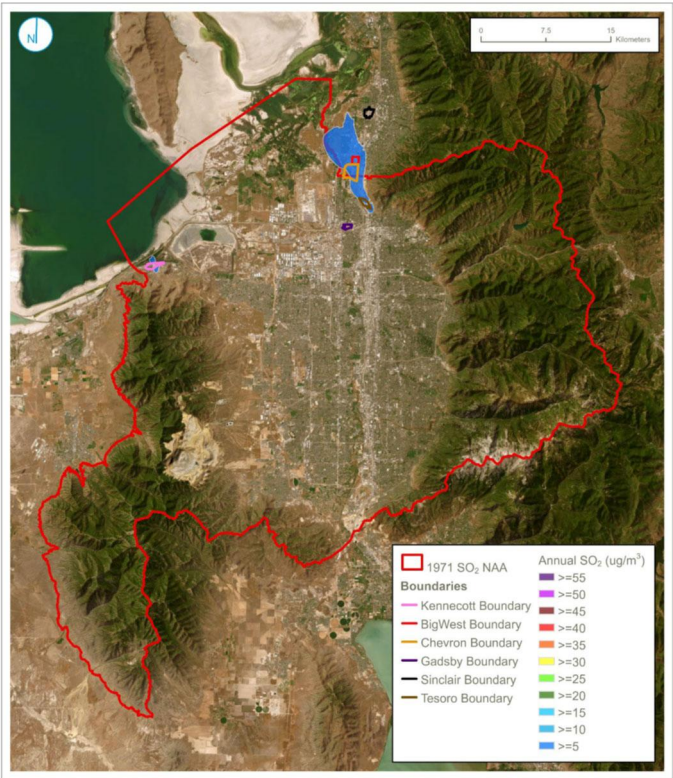
When considering the highest impacts (in the form of the standard) at all ambient air receptors (outside Kennecott run), the impacts are less than 13% of the NAAQS. It is noted that these results conservatively include the facility impacts within their fenceline for the other explicitly modeled facilities. The analysis demonstrates that the cumulative impacts at locations of public access are well below the level of the annual SO₂ NAAQS throughout the nonattainment area.

In 2024, EPA promulgated a new secondary annual SO₂ standard of 10 ppb (26.2 µg/m³)⁵⁰, averaged over the most recent three years. As is demonstrated by the model runs presented here, this standard is easily satisfied throughout the model domain.⁵¹ Assuming the maximum annual impact of 10.33 µg/m³ persists for three consecutive years, the impacts are less than 40% of the new secondary annual NAAQS.

⁵⁰ 89 FR 105692, <https://www.federalregister.gov/documents/2024/12/27/2024-29463/review-of-the-secondary-national-ambient-air-quality-standards-for-oxides-of-nitrogen-oxides-of>.

⁵¹ Results presented in Table 5 are for a single year whereas the new 2024 secondary standard is a multi-year average, so the results presented in Table 5 are in a form that is more conservative than the form of the new NAAQS.

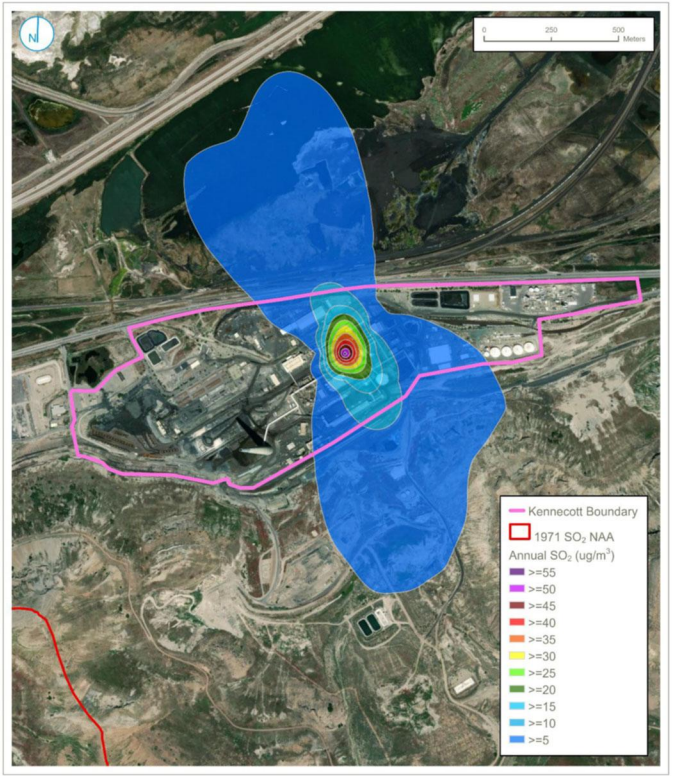
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Figure 9: Impacts of Annual SO₂ (highest single year) throughout the nonattainment area.



4

Figure 10: Impacts of Annual SO₂ (highest single year) in the vicinity of the

E. Discussion

As shown in subsections A through D, the modeled total impacts for the SLC NAA and TC NAA comply with the 1971 NAAQS. The only receptors where concentrations exceeded the level of the NAAQS were on the Kennecott property when modeling all emission units. Once the Kennecott emissions were removed from consideration at those receptors, impacts of the other facilities and background were found to be far below the standards.

At receptors outside the Kennecott boundary, the highest total impacts ranged from about 13% of the standard (annual) to about 33% of the standard (24-hour). Concentrations versus each of the standards considered are far below the NAAQS at locations within ambient air.

The low magnitude of modeled impacts versus the NAAQS provides assurance that NAAQS compliance within the airshed is robust and would be unaffected by different parameterizations in the model setup. For example, as noted in the development of modeled emission rates (Appendix 1), most facilities that were explicitly modeled operate under facility-wide restrictions rather than a series of restrictions applicable to each individual emission unit. Where possible, design capacities of each unit were used to calculate an individualized allowable emission rate for that unit, while remaining unassigned emissions under the facility-wide cap were assigned to units for which an individualized potential emission rate could not be determined. If those units for which individualized totals were able to be calculated were emitting less than their calculated rates, then the amount of unassigned emissions would be greater, and those units receiving the unassigned emissions would then be able to emit at a higher rate.

With modeled impacts at ambient receptors being no more than one-third of any applicable NAAQS, dramatic increases in emission rates – beyond the facility’s permitted levels – would be necessary to obtain concentrations near the level of the NAAQS.

Similarly, there is such ample headroom between the modeled values and the NAAQS that remaining uncertainty in stack parameters should not be a concern. Where the reviewed information contained two different stack parameters for each unit, the lower value of the parameter was chosen for modeling (i.e., lower stack height, smaller release temperature, smaller release velocity, smaller stack diameter). In most instances, the choice of these conservative parameters are expected to result in lower plume rise, less dispersion, and higher modeled concentration. While the central portion of the nonattainment area is relatively flat, there is rugged terrain in the western and eastern portions of the nonattainment areas. Complex terrain may result in local hotspots of higher concentrations at distance from the facility. In the present exercise, it should be emphasized that modeled total impacts at ambient receptors were only 13 to 33 percent of

NAAQS, depending on the particular standard chosen. Given the small magnitude of modeled impacts relative to the NAAQS, there is room if modeled results were to change for a different choice of stack parameters. Additionally, the facility producing the highest absolute impacts (Kennecott) was modeled with stack parameters that were previously reviewed by the EPA, and as seen in Figure 3, Figure 5, and Figure 7, the highest impacts at Kennecott occur at the facility itself rather than at distant hotspots.

In conclusion, the results of this modeling demonstration indicate the Salt Lake-Tooele 1971 SO₂ nonattainment areas are in attainment for the three standards under the 1971 SO₂ NAAQS at facilities' currently permitted SO₂ emission rates.

ii. Fully Approved Applicable Implementation Plan for SO₂

CAA 107(d)(3)(E)(ii) - The Administrator has fully approved the applicable implementation plan for the area under section 110(k). The 1990 amendments to the CAA required states to submit SIP revisions by May 15, 1992, to address nonattainment of the 1971 SO₂ NAAQS. In response, the State submitted revisions to the GEP stack height SIP on December 23, 1991, followed by the revised SO₂ SIP on May 15, 1992. The EPA fully approved both the GEP and SO₂ SIPs, as published in the Federal Register (59 FR 18341) on December 14, 1994.⁵² The SIPs became effective on January 13, 1995. A detailed history of the SIP approval can be found in the Background section of this document.

iii. Improvement in Air Quality Due to Permanent and Enforceable Reductions in Emissions

CAA 107(d)(3)(E)(iii) - The Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions. As discussed in the background section of this document, the SO₂ impact that led to the area's nonattainment designation in 1978 was attributed entirely to Kennecott, and primarily to its smelting process. The history of enforceable emission reductions at Kennecott and improved air quality is discussed below.

(1) Emissions Reductions at Kennecott

Between 1978 and 1995, Kennecott undertook significant modernization of its smelting operations in response to the 1971 SO₂ NAAQS violations and the later PM₁₀ SIP. Kennecott replaced older reverberatory furnaces with Noranda reactors and installed a new single-contact

⁵² Approval and Promulgation of State Implementation Plans, Utah Stack Height Analyses and Regulations, December 14, 1994, 59 FR 18341, www.federalregister.gov/documents/search?conditions%5Bterm%5D=59+FR+18341.

acid plant to control SO₂ emissions from both reactors and converters. A 1,200-foot stack was constructed to improve dispersion and reduce ground-level impacts. Concurrently, improved capture systems and changes in operational practices were made to reduce fugitive emissions. In the 1981 SIP⁵³ submission, the Division revised the Utah administrative rules for air quality to include enforceable SO₂ emission limits for the smelter and associated units, including molybdenite heat treaters, the refinery, and the on-site power plant. RACT was applied to low-level emission sources and fugitive emissions.

As SO₂ is a known precursor to PM₁₀ formation, additional efforts were made to reduce SO₂ emissions as part of the 1991 PM₁₀ SIP. During this period Kennecott implemented further enhancements to the smelting operation, which included replacing the Noranda smelter with flash furnace technology, installing a flash-converting furnace, and upgrading to a double-contact acid plant. These modifications significantly reduced the allowable SO₂ emissions from the main stack from 18,200 lbs/hr to 3,204 lbs/hr.

Table 10 presents Kennecott's emissions from various operational units along with the original 1979 emission inventory. Original emissions are then compared side by side with their federally enforceable emission limits set by the 1981 SO₂ SIP and the 1991 PM₁₀ SIP. A drastic reduction in emissions can be observed at Kennecott from 1979 to 1999 as part of the SIP efforts.

Table 10: Historical SIP enforceable emissions reduction from Kennecott operations

Sources	1979 Emissions* (tpy)	Limits	1981 SO ₂ SIP Limits~	1990 Emissions** (tpy)	1991 PM ₁₀ SIP Limits~	1999 Emissions+ (tpy)
Main Stack	67,900	None	79,700 tpy	22,382	14,200 tpy	629.8
Smelter Fugitives	16,500	None	RACT	4,380	RACT	157.7
Utah Power Plant	4,759	None	0.48 lb/MMBtu	2,905	0.52 lb/MMBtu	2,786.10
Magna Molybdenum Heat Treater	1,988	None	608 tpy	NA	Discontinued	NA
Arthur Molybdenum Heat Treater	1,988	None	608 tpy	NA	Discontinued	NA
Copperton Molybdenum Heat Treater	NA	NA	NA	0.7	115 tpy	0.1
Refinery	1,512	None	512 tpy	4.2	None	0.4
Total	94,647			29,672		3,574

* The 1979 inventory was compiled as part of the 1981 SO₂ SIP revision.

** The 1990 inventory represents the period between the first round of smelter modifications and the second round, which coincided with the PM₁₀ SIP.

+ The 1999 inventory represents the period after the second smelter modification.

⁵³ Utah State Implementation Plan, Section 4.3.2. Regulation for Control of Main Stack SO₂ Emissions (Kennecott Mineral Company), August 16, 1981.

- 1 - The 1981 SIP tpy limits were expressed in lbs/hr (18,200 annual average at the main stack, 139 lbs/hr at each Heat Treater, and 117 lbs/hr at the refinery).
- 2 ~ The 1991 SIP limits come from the PM₁₀ SIP. The tpy limits were expressed in lbs/hr (3,240 lbs/hr annual average at the main stack, 26.2 lb.hr for the Heat Treater at the Copperton Concentrator).

(2) Other Emissions Reductions Measures

As part of the 1992 SO₂ SIP, the State also made significant revisions to Utah Administrative Code Rule R307-203 which regulates sulfur content in fuels (coal, fuel oil, and/or fuel mixtures) from stationary sources. The rule established more stringent emissions standards which stated sulfur emissions shall contain no more than 1.0 lb/MMBtu heat input for any mixture of coal nor 0.85 lb/MMBtu heat input for any oil. In addition, the rule introduced a 24-hour averaging period for determining the sulfur content of these fuels and standardized testing procedures. As SO₂ is considered a precursor pollutant to PM₁₀, PM_{2.5}, and Regional Haze, the State has identified and implemented various emissions reduction measures in the respective SIPs. The SO₂ control measures implemented under Utah SIPs are tabulated below.

Table 11: SIP enforceable SO₂ control measures

Company/Sources	SO ₂ Control Measures	Quantified Reduction
2002 PM₁₀ SIP (Approved)⁵⁴		
Geneva Steel Process	Annual emissions reduced from 1449.3 tpy to 560.2 tpy	889.1 tpy
All Refineries in Salt Lake County and Davis County	Installation of Sulfur Recovery Units (SRU)	95% efficiency
	Restrictions on the burning of liquid fuel oil	
	Low-SO _x catalyst emission reduction techniques	Maximum of 9.8 lbs SO ₂ /1000 lbs coke burn-off
	CEM shall meet the requirements of rule R307-170.	
AMOCO, Flying-J, and Crysen	Emission limits for low process flares	
Flying-J and Crysen	Use of low sulfur content crude	Maximum of 0.24% by weight
Utah County	Ban on all forms of residential coal burning	30% reduction
	Installer and operator training programs for residential solid fuel burning devices	5% reduction

⁵⁴ Utah State Implementation Plan, Section IX, Part A, PM₁₀,
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=551009&eqdocs=%20DAQ-2025-000622&dbid=0&repo=Public>.

	Solid fuel burner inspection program	5% reduction
2014 Moderate Area PM_{2.5} SIP (Approved) - 2015 attainment year data		
Salt Lake City, UT ⁵⁵	R307-302, Solid fuel burning devices	19.16 tpy reduced
	R307-356, Appliance pilot light	1.10 tpy reduced
Provo, UT ⁵⁶	R307-302, Solid fuel burning devices	4.02 tpy reduced
	R307-356, Appliance pilot light	0.19 tpy reduced
Logan, UT ⁵⁷	R307-302, Solid fuel burning devices	2.01 tpy reduced
	R307-356, Appliance pilot light	~0.19 tpy reduced
2019 Serious Area PM_{2.5} SIP (Approved) - 2019 attainment year data ⁵⁸		
Salt Lake City	R307-208, Outdoor Wood Boilers	1.06 tpy reduced
	R307-356, Appliance pilot light	7.88 tpy reduced
	R307-302, Solid fuel burning devices	24.09 tpy reduced
IX.H.1-H.4: PM₁₀ Emission Limits ⁵⁹		
Stack Testing	Stack tests should be performed in accordance with 40 CFR 60, Appendix A, Method 2, 6C, and 19.	
Fluid Catalytic Cracking Units (FCCU)	FCCUs shall comply with an SO ₂ emission limit of 25 ppmvd @ 0% excess air on a 365-day rolling average basis and 50 ppmvd @ 0% excess air on a 7-day rolling average basis.	
Refinery Fuel Gas	Reduce H ₂ S content of the refinery plant gas to 60 ppm or less as described in 40 CFR 60.102a.	
Sulfur Recovery Units (SRU)	SRUs shall be at least 95% effective in removing sulfur and meet limitations listed in 40 CFR 60.102a(f)(1) or 60.102a(f)(2).	
	Amine acid gas and sour water stripper acid gas shall be processed in the SRU(s).	
Liquid Fuel Oil	Liquid fuel oil shall not be allowed to burn in stationary sources except during natural gas curtailments.	
	Diesel fuel shall meet the specification of 40 CFR 1090.305.	

⁵⁵ Utah State Implementation Plan, Section IX, Part A.21, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=479906&eqdocs=%20DAQ-2024-011602>.

⁵⁶ Utah State Implementation Plan, Section IX, Part A.22, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=479904&eqdocs=%20DAQ-2024-011604>.

⁵⁷ Utah State Implementation Plan, Section IX, Part A.23, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=479910&eqdocs=%20DAQ-2024-011601>.

⁵⁸ Utah State Implementation Plan, Section IX, Part A.31, PM_{2.5},
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=385732&eqdocs=%20DAQ-2019-005386>.

⁵⁹ Utah State Implementation Plan, Section IX, Part H,
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=560211&eqdocs=%20DAQ-2025-001221&dbid=0&repo=Public>.

Hydrocarbon Flares	Flares are subject to NSPS Subpart Ja.	
	Install and operate a flare gas recovery system designed to limit hydrocarbon flaring produced from each affected flare during normal operations to levels below the values listed in 40 CFR 60.103a(c) or limit flaring during normal operations to 500,000 scfd for each affected flare.	
Big West Oil Company	Source-wide SO ₂ cap	Not to exceed 0.60 tons per day (tpd) and 140 ton per rolling 12-month period
	Alternate Startup and Shutdown Requirements	Combined emissions of SO ₂ shall not exceed 1.2 tpd
	The total number of days which include startup or shutdown of the FCCU shall not exceed ten (10) per 12-month rolling period.	
	Refinery flares shall meet Subpart Ja and MACT CC flaring standards.	
	Product loading racks shall be controlled by vapor recovery and vapor combustors.	
	Interim Emission Limits: Combined emissions of SO ₂ from all external combustion process equipment between October 1 - March 31	Not to exceed 2.764 tpd
	Interim Emission Limits: Combined emissions of SO ₂ from all external combustion process equipment between April 1 - September 30	Not to exceed 3.639 tpd
Chevron Products Company	Source-wide SO ₂ cap	Not to exceed 1.05 tpd and 383.3 tons per rolling 12-month period
	Sulfur Recovery Unit #1 and #2 shall be controlled by a tail gas treatment unit and tail gas incineration.	
	Flare #1 and #2 shall be controlled by a flare gas recovery system.	
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment.	Not to exceed 0.5 tpd
Hexcel Corporation	Natural gas consumption	Not to exceed 5.50 MMscf per day

Tooele County SO₂ Maintenance Provisions

Holly Refining and Marketing Company	Source-wide SO ₂ cap	Not to exceed 0.31 tpd and 110.3 tons per rolling 12-month period
	Sulfur recovery unit shall be controlled by tail gas incineration.	
	Interim Emission Limits: Combined emissions of SO ₂ from all sources	Not to exceed 4.714 tpd
Kennecott Utah Copper	Diesel-powered ore and waste haul trucks	Not to exceed 30,000 miles per day
	Smelter Main Stack (Stack #11) emission	Not to exceed 552 lbs/hr 3-hour rolling average
		Not to exceed 422 lbs/hr daily average
	Main Stack (Stack #11) shall have SO ₂ CEMs installed and meet the requirements of rule R307-170.	
	Power Plant Unit #4 shall only use natural gas as fuel, unless the supplier or transporter of natural gas imposes a curtailment.	
	Sulfur content of any fuel burned	Not to exceed 0.66 lbs of sulfur per MMBtu per test
Tesoro Refining & Marketing Company	Source-wide SO ₂ cap	Not to exceed 3.8 tpd and 300 tons per rolling 12-month period
	SRU/TGTU/TGI	Not to exceed 1.68 tpd for up to 21 days per rolling 12-month period and 0.69 tpd for the remainder of the rolling 12-month period
	North and South Flares shall be controlled by a flare gas recovery system.	
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between November 1 - End of February	3.699 tpd
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between March 1 - October 31	4.374 tpd
Gadsby Power Plant	Steam generating units #1, #2, #3 shall only use natural gas as fuel, unless the supplier or transporter of natural gas	

	imposes a curtailment and for maintenance firings.	
Brigham Young University	Central Heating Unit #2, #3 and #5	Not to exceed 597 ppm (7% O ₂ dry)
	Central Heating Plant Coal-Fired Boilers	Not to exceed 0.54 lbs of sulfur per MMBtu or 0.60% by weight
	Inspect fuel sulfur weight % and fuel heating value by submitting a coal sample to a laboratory using methods of ASTM, or inspecting vendor documentation.	
IX.H.11-H.13: PM_{2.5} Emission Limits ⁶⁰		
Stack Testing	Stack tests should be performed in accordance with 40 CFR 60, Appendix A, Method 2, 6C, and 19.	
Fluid Catalytic Cracking Units (FCCU)	FCCUs shall comply with an SO ₂ emission limit of 25 ppmvd @ 0% excess air on a 365-day rolling average basis and 50 ppmvd @ 0% excess air on a 7-day rolling average basis.	
Refinery Fuel Gas	Reduce H ₂ S content of the refinery plant gas to 60 ppm or less as described in 40 CFR 60.102a.	
Hydrocarbon Flares	Flares are subject to NSPS Subpart Ja.	
	Install and operate a flare gas recovery system designed to limit hydrocarbon flaring produced from each affected flare during normal operations to levels below the values listed in 40 CFR 60.103a(c) or limit flaring during normal operations to 500,000 scfd for each affected flare.	
Liquid Fuel Oil	Liquid fuel oil shall not be allowed to burn in stationary sources except during natural gas curtailments.	
	Diesel fuel shall meet the specification of 40 CFR 1090.305.	
Big West Oil Company	Alternate Startup and Shutdown	Combined emissions of SO ₂ shall not exceed 1.2 tpd
	The total number of days which include startup or shutdown of the FCCU shall not exceed ten (10) per 12-month rolling period.	
	Refinery flares shall meet Subpart Ja and MACT CC flaring standards.	

⁶⁰ Utah State Implementation Plan, Section IX.H.11-H.13,
<https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=585532&eqdocs=%20DAQ-2025-001223>.

Tooele County SO2 Maintenance Provisions

	Product loading racks shall be controlled by vapor recovery and vapor combustors.	
Chevron Products Company	Sulfur Recovery Units #1 and #2 shall be controlled by a tail gas treatment unit and tail gas incineration.	
	Flare #1 and #2 shall be controlled by a flare gas recovery system.	
Hexcel Corporation	Natural gas consumption	Not to exceed 5.50 MMscf per day
HF Sinclair Woods Cross Refinery	Refinery flares shall be controlled by flare gas recovery system.	
	Sulfur recovery unit shall be controlled by tail gas incineration.	
Kennecott Utah Copper	Diesel-powered ore and waste haul trucks	Not to exceed 30,000 miles per day
	Power Plant Unit #4 shall only use natural gas as fuel, unless the supplier or transporter of natural gas imposes a curtailment.	
	Smelter Main Stack (Stack #11) SO ₂ emission	Not to exceed 552 lbs/hr 3hr. rolling average
		Not to exceed 422 lbs/hr daily average
	The Main Stack (Stack #11) shall have SO ₂ CEMs installed and meet the requirements of R307-170.	
	Electric Arc Furnace Baghouse shall have CEM installed and meet the requirements of R307-170.	
Nucor Steel Mills	SO ₂ emission	Not to exceed 93.98 lbs/hr 3-hour rolling average
		Not to exceed 89.00 lbs/hr daily average
Tesoro Refining & Marketing Company	SRU/TGTU/TGI	Not to exceed 1.68 tpd for up to 21 days per rolling 12-month period and 0.69 tpd for the remainder of the rolling 12-month period
	North and South Flares shall be controlled by flare gas recovery system.	
	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between November 1 - End of February	3.699 tpd

	Interim Emission Limits: Combined emissions of SO ₂ from gas-fired compressor drivers and all external combustion process equipment between March 1 - October 31	4.374 tpd
Gadsby Power Plant	Steam generating unit #1, #2, #3 shall only use natural gas as fuel, unless the supplier or transporter of natural gas imposes a curtailment or for maintenance firings.	
University of Utah	Boilers #1, #3, and #4 natural gas usage	Not to exceed 530 MMscf per calendar year
Brigham Young University	Central Heating Unit #2, #3 and #5	Not to exceed 597 ppm (7% O ₂ dry) lbs/hr
	Sulfur content of central heating plant coal-fired boilers	Not to exceed 0.54 lbs/MMBtu
	Inspect fuel sulfur weight % and fuel heating value by submitting a coal sample to a laboratory.	

1
2

iv. State has Met Requirements of Section 110 and Part D

CAA 107(d)(3)(E)(v) – The State containing such area has met all requirements applicable to the area under section 110 and part D. Section 110 of the Act deals with the broad scope of the state implementation plans and the capacity of the respective state agency to effectively administer such a plan. Part D deals specifically with plan requirements for nonattainment areas, including those requirements that are specific to SO₂.

(1) Section 110

The State has met all requirements applicable to the TC NAA area under Section 110 of the CAA. Section 110(a)(2) contains the general requirements or infrastructure elements necessary for EPA approval of the SIP. On June 2, 2013, the State submitted an Infrastructure SIP to the EPA demonstrating compliance with the requirements of Section 110 that are applicable to the 2010 SO₂ NAAQS.⁶¹ The EPA approved the State’s Infrastructure SIP on October 22, 2018 (83 FR 47566) for all Section 110 requirements that are applicable to redesignation.⁶²

(2) Part D Subpart 1 and 5

Part D of the CAA addresses “Plan Requirements for Nonattainment Areas.” Subparts 1 and 5 of Part D contain planning elements that must be included in the SIP. This includes emissions inventories, control measures (including reasonably available control technology), permits for major new or modified sources, enforceable emissions limits, schedules of compliance, and contingency measures if progress is inadequate. On May 15, 1992, the State submitted a revised SO₂ SIP adequately addressing each of the above-mentioned elements. The SIP was fully approved by the EPA on December 14, 1994, which suggests Utah has complied with all applicable Part D requirements.⁶³

v. Maintenance Plan

As stated in the CAA, an area may not be redesignated to attainment without first submitting and receiving EPA approval of a maintenance plan. The maintenance plan is a quantitative analysis showing that the area will continue to attain the NAAQS for an additional 10 years (from EPA

⁶¹ State of Utah 110(a)(2) SIP Infrastructure Elements for SO₂ (2013), <https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=572027&eqdocs=%20DAQ-2025-002449&dbid=0&repo=Public>.

⁶² Air Quality State Implementation Plans, Approvals and Promulgations: Infrastructure Monitoring Requirements for the 2008 Pb, 2010 SO₂, 2010 NO₂ and 2012 PM_{2.5} National Ambient Air Quality Standards, Utah, October 22, 2018, <https://www.federalregister.gov/documents/2018/09/20/2018-20448/air-quality-state-implementation-plans-approvals-and-promulgations-infrastructure-monitoring>.

⁶³ Approval and Promulgation of State Implementation Plans, Utah Stack Height Analyses and Regulations, December 14, 1994, 59 FR 18341, www.federalregister.gov/documents/search?conditions%5Bterm%5D=59+FR+18341.

approval), accompanied by sufficient assurance that the terms of the numeric demonstration will be administered by the State and by the EPA in an oversight capacity. The maintenance plan is the central criterion for redesignation. It is contained in the following Section.

IX.B.12.d Maintenance Plan

CAA 107(d)(3)(E)(iv) – *The administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A.* An approved maintenance plan is one of several criteria necessary for area redesignation as outlined in Section 107(d)(3)(E) of the CAA. The maintenance plan itself, as described in Section 175A of the CAA and further addressed in EPA guidance⁶⁴, has its own list of required elements. The following table is presented to summarize these requirements. Each will then be addressed in turn.

Table 12: Maintenance Plan Requirements in the Federal Clean Air Act

Category	Requirement	Reference	Addressed in Section
Maintenance Demonstration	Provide for maintenance of the relevant NAAQS in the area for at least 10 years after redesignation.	CAA §175A(a)	IX.B.12.d(i)
Revise in 8 Years	The State must submit an additional revision to the plan, 8 years after redesignation, showing an additional 10 years of maintenance.	CAA §175(b)	IX.B.12.d(ii)
Continued Implementation of Nonattainment Area Control Strategy	The CAA requires continued implementation of the nonattainment area control strategy unless such measures are shown to be unnecessary for maintenance or are replaced with measures that achieve equivalent reductions.	CAA §175A(c), Calcagni memo	IX.B.12.d(iii)
Contingency Measures	Areas seeking redesignation from nonattainment to attainment are required to develop contingency measures that include State commitments to implement additional control measures in response to future violations of the NAAQS.	CAA §175A(d)	IX.B.12.d(iv)

⁶⁴ John Calcagni, September 4, 1992, EPA Memorandum “Procedure for Processing Requests to Redesignate Areas to Attainment” https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf

Category	Requirement	Reference	Addressed in Section
Verification of Continued Maintenance	The maintenance plan must indicate how the State will track the progress of the maintenance plan.	Calcagni memo	IX.B.12.d(v)

1

2 i. Demonstration of Maintenance – Attainment Inventory

3 *CAA 175A(a) – Each State which submits a request under Section 107(d) for redesignation of a*
4 *nonattainment area as an area which has attained the NAAQS shall also submit a revision of the*
5 *applicable implementation plan to provide for maintenance of the NAAQS for at least 10 years*
6 *after the redesignation. The plan shall contain such additional measures, if any, as may be*
7 *required to ensure such maintenance.* The maintenance demonstration is discussed in the EPA
8 guidance⁶⁵ as one of the core provisions that should be considered by the states for inclusion in a
9 maintenance plan.

10

11 According to the EPA guidance, a state may generally demonstrate maintenance of the NAAQS
12 by either showing that future emissions of a pollutant or its precursors will not exceed the level
13 of the attainment inventory or by modeling to show that the future mix of sources and emission
14 rates will not cause a violation of the NAAQS.

15

16 As discussed in Section IX.B.12.c(i)(2) – Modeling Element of this document, Utah has
17 provided a modeling demonstration evaluating continued attainment of the NAAQS using the
18 highest allowable emissions from six point sources in and near the nonattainment area. In
19 addition to that analysis, Utah is providing an attainment inventory-based demonstration of
20 maintenance. Under this approach, projected future emissions at the highest allowable levels are
21 compared to the base-year attainment inventory to show that the emissions are expected to
22 remain at or below levels consistent with continued attainment.

23

24 Consistent with the guidance, the projection inventory should consider future growth, including
25 population and industry, should be consistent with the base-year inventory, and should document
26 data inputs and assumptions. Any assumption concerning emission rates must reflect permanent,
27 enforceable measures.

28

⁶⁵ John Calcagni, September 4, 1992, EPA Memorandum “Procedure for Processing Requests to Redesignate Areas to Attainment” https://www.epa.gov/sites/default/files/2016-03/documents/calcagni_memo_-_procedures_for_processing_requests_to_redesignate_areas_to_attainment_090492.pdf.

1 The Division chose 2023 as the base year for inventory analysis presented in this section because
2 it was the most recent triennial inventory year available for all source categories. The base-year
3 emissions inventory is a comprehensive, accurate, and current inventory of actual emissions for
4 all sources in the nonattainment area plus any sources located outside the nonattainment area that
5 may affect attainment.⁶⁶ The 2023 base-year emissions inventory is projected to 2040 to
6 demonstrate maintenance of the NAAQS. The year 2040 is chosen to allow at least 10 years of
7 maintenance period after final EPA redesignation. The emissions contained in the inventories
8 include sources located in Salt Lake and Tooele Counties.⁶⁷ Emissions from three point sources
9 in Davis County (adjacent to Salt Lake County) are also included in the maintenance
10 demonstration.⁶⁸ These sources were determined to be significant by the EPA for the attainment
11 demonstration and were therefore included in both the modeling analysis and the inventory
12 projection.

13
14 There are four general categories of sources included in the inventory: point source, area source,
15 on-road mobile source, and non-road mobile source. All inventories are developed in accordance
16 with the Air Emissions Reporting Requirements (40 CFR Part 51, Subpart A). Emissions
17 recorded for each sector are presented in tons per year.

18
19 The point source category consists of all stationary sources subject to Utah Emissions Inventory
20 Reporting Rule R307-150, including both major (>100 tpy) and minor (<100 tpy) SO₂ emission
21 sources in Salt Lake and Tooele counties.⁶⁹ Stationary sources that are not subject to Rule R307-
22 150 are classified under the area source category. The area source category also includes
23 emissions estimates for sources that are individually too small to be reported as point sources but
24 collectively contribute to total SO₂ emissions within the SO₂ nonattainment areas. Notable
25 examples include combustion activities, agricultural burning, and wildfires.

26
27 On-road mobile sources include emissions from motorized vehicles that typically operate on
28 public roadways, such as passenger vehicles, light-duty trucks, heavy-duty trucks, and buses.
29 Non-road mobile sources include yard care equipment, construction equipment, recreational
30 engines, and portable industrial, commercial, and agricultural engines. Emissions from both on-
31 road and non-road mobile sources were developed using the EPA-approved Motor Vehicle
32 Emission Simulator, version 5 (MOVES5).⁷⁰

⁶⁶ Table 13, 14, and 15 of this document.

⁶⁷ Table 13: SO₂ emissions inventory for Salt Lake and Tooele counties by source category in tons per year.

⁶⁸ Table 14 and 15 of this document.

⁶⁹ R307-150 Emissions Inventory

<https://adminrules.utah.gov/public/rule/R307-150/Current%20Rules?searchText=R307-150>.

⁷⁰ MOVES5 5.0.1-movesdb20241112

<https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves>.

Emissions inventory Table 13 shows baseline point source emissions from 1979 which were compiled as part of the 1981 SO₂ SIP effort.⁷¹ Area source emissions were projected to 2040 from the 2023 triannual inventory. Growth data from appropriate data sources, including information from the Governor's Office of Management and Budget, was used for the projection. Point source emissions are represented as the actual emissions from the 2023 triannual emissions inventory. Point sources were grown from 2023 to 2040 on a case-by-case basis for the projection inventories. On-road and non-road mobile source emissions were projected using MOVES5.

Table 13: SO₂ emissions inventory for Salt Lake and Tooele counties by source category in tons per year

Nonattainment Area Inventory Projection (tpy)⁺												
	1979	1996	1999	2002	2005	2008	2011	2014	2017	2020	2023	2040
Area Sources	*	41.10	1,162.81	292.67	158.54	200.43	595.85	23.65	146.84	192.51	150.51	158.36
Non-Road Mobile	*	198.52	*	536.67	583.13	353.24	247.16	130.25	183.34	2.99	168.75	226.94
On-Road Mobile	*	0.00	927.36	855.61	608.61	86.35	120.84	103.82	108.60	32.19	33.65	18.60
Point Source**	112,994.17	4,959.54	5,108.81	4,771.65	4,998.86	5,955.08	3,467.53	3,076.37	2,250.27	631.55	560.15	588.35
Total	112,994.17	5,199.16	7,198.98	6,456.60	6,349.14	6,595.10	4,431.38	3,334.09	2,689.05	859.24	913.06	992.25

*Data not available

⁺Does not include emissions from Davis County sources

Total SO₂ emissions in the Utah SO₂ nonattainment area have declined dramatically since 1979, decreasing from approximately 113,000 tpy to about 913 tpy in 2023, representing a reduction of more than 99%. Early emissions were dominated by large industrial point sources, which accounted for nearly all SO₂ emissions in 1979. Substantial reductions occurred through the 1980s and 1990s as major facilities implemented enforceable emission limits and control technologies. Continued declines after 2000 reflect additional controls, operational changes, and improved compliance with federal and state permitting requirements. Since 2023, point sources remain the primary contributors but at significantly reduced levels, while area, on-road mobile, and non-road mobile sources collectively contribute a relatively small portion of total emissions.

The observed reductions are primarily attributed to implementation of the approved SIPs⁷², which required the application of RACT under moderate SIP and Best Available Control

⁷¹ 1979 Baseline Emissions Inventory, 1981 SO₂ SIP, <https://lf-public.deq.utah.gov/WebLink/ElectronicFile.aspx?docid=612086&dbid=0>.

⁷² Utah State Implementation Plans, <https://deq.utah.gov/air-quality/sections-state-implementation-plan-sip>.

Technology under serious SIP and facility-specific emission limits⁷³ for major SO₂ sources. Additional reductions resulted from federal fuel sulfur standards and mobile-source regulations that substantially lowered sulfur content in fuels^{74, 75}, leading to near elimination of SO₂ emissions from on-road engines. Changes in the petroleum refinery industry, including fuel switching and installation of sulfur control equipment, further contributed to long-term emission decreases.⁷⁶

Between 2023 and 2040, total SO₂ emissions in the nonattainment area are projected to increase modestly from 913.06 tpy to 992.25 tpy (approximately 9%), while remaining substantially below historical levels associated with prior nonattainment. Point source actual emissions, which constitute the largest share of the inventory, are projected to increase slightly from 560.15 tpy in 2023 to 588.35 tpy in 2040 due to anticipated industrial activity and economic growth. However, emissions from these sources remain subject to permanent and federally enforceable permit limits established in facility Approval Orders. These limits represent the maximum allowable emissions for each facility and are not expected to increase by 2040. The projected 2040 point source emissions of 588.35 tpy remain well below the facility-wide maximum allowable emission limits used in the attainment modeling.⁷⁷ This relationship demonstrates that even with modest growth in actual emissions, emissions remain within the bounds evaluated in the attainment demonstration.

Non-road mobile source emissions are projected to increase from 168.75 tpy to 226.94 tpy, largely attributable to projected growth in airport-related activity within the non-road sector. In contrast, on-road mobile source emissions are projected to decline from 33.65 tpy to 18.60 tpy as a result of continued fleet turnover and implementation of federal vehicle emission standards and ultra-low sulfur fuel requirements. Area source emissions are projected to increase slightly from 150.51 tpy to 158.36 tpy, consistent with anticipated population and commercial growth.

Emissions projections through 2040 indicate that total SO₂ emissions are expected to remain low and stable under existing regulatory programs, providing assurance that the maintenance area will continue to comply with the current SO₂ NAAQS which is considerably more stringent than the 1971 standards.⁷⁸ These trends demonstrate that the emission reductions are permanent, surplus, and enforceable, and that the proposed maintenance area is well positioned to maintain attainment throughout the maintenance period.

⁷³ SO₂ Maintenance Plan, Table 11: SIP enforceable SO₂ control measures.

⁷⁴ 1090.205 Sulfur standards, 40 CFR 1090.205, <https://www.ecfr.gov/current/title-40/section-1090.205>.

⁷⁵ ULSD Standards, 40 CFR 1090.305, <https://www.ecfr.gov/current/title-40/section-1090.305>.

⁷⁶ Standards of Performance for Petroleum Refineries, 40 CFR Part 60 Subpart Ja, <https://www.ecfr.gov/current/title-40/part-60/subpart-Ja>.

⁷⁷ Section IX.B.12.c(i)(2) The Area Has Attained the 1971 SO₂ NAAQS: Modeling Element

⁷⁸ SO₂ NAAQS, <https://www.epa.gov/so2-pollution/timeline-sulfur-dioxide-naaqs>.

Table 14: 2023 actual, 2040 projected, and maximum allowable SO₂ emissions for six explicitly modeled sources. Maximum allowable emission limits are held constant between 2023 and 2040.

Explicitly Modeled Sources	2023 Actual Emissions	2040 Projected Emissions	2023 & 2040 Maximum Allowable Emission Limits
Kennecott Smelter and Refinery	429.49	442.66	1,090.27
Gadsby Power Plant	1.16	0.88	75.00
Tesoro Refinery	17.60	18.14	300.01
Chevron Refinery*	37.58	38.73	384.70
Big West Refinery*	70.54	72.70	140.14
HF Sinclair Refinery*	12.17	12.55	84.10
Total	568.54	585.66	2,074.22

*Located in Davis County.

Table 14 summarizes 2023 actual SO₂ emissions and projected 2040 emissions for the six explicitly modeled stationary sources⁷⁹ in and near the nonattainment area, along with their maximum allowable emission limits. In 2023, total actual emissions from these sources were 568.54 tpy. Emissions are dominated by the Kennecott Smelter and Refinery (429.49 tpy), with the remaining facilities contributing comparatively smaller amounts. The combined maximum allowable emission limits for these six sources are 2,074.22 tpy, indicating that actual emissions are well below allowable levels and that significant compliance margins exist for each facility.

Projected 2040 emissions total 585.66 tpy, representing a modest increase of approximately 3% from 2023 actual emissions inventory levels. Individual facility projections show only minor changes, and total maximum allowable emission limits remain unchanged through 2040. Overall, projected emissions remain substantially below the maximum allowable emission limits.

The dispersion modeling conducted for the attainment demonstration used 2023 maximum allowable emission limits and the results show that the area meets the applicable SO₂ NAAQS. Emissions from these six explicitly modeled sources represent the primary contributors of SO₂, while all other emission sources in the nonattainment area accounted for in the background concentration used in the modeling analysis. Because 2040 maximum allowable emission limits remain unchanged and are comparable to the emissions levels used in the attainment modeling, similar dispersion modeling results would be expected under 2040 conditions. These data support the conclusion that SO₂ emissions from explicitly modeled sources are expected to

⁷⁹ Section IX.B.12.c(i)(2) The Area Has Attained the 1971 SO₂ NAAQS: Modeling Element

1 remain stable over the maintenance period and that continued maintenance of the SO₂ NAAQS
2 through 2040 is reasonably assured. Facility-wide maximum allowable emission limits and
3 compliance with NAAQS have been discussed in detail in the modeling chapter in Section
4 IX.B.12.c(i)(2) which supports the same conclusion.
5
6

1 Table 15: Triennial actual SO₂ emissions inventory for six explicitly modeled sources covering
 2 1996–2023, with forward projections from 2023 through 2040.

	1996	1999	2002	2005	2008	2011	2014	2017	2020	2023 Base- year	2040 Projection
Kennecott Smelter and Refinery	1,555.30	789.19	938.75	777.27	970.08	696.89	703.14	587.95	428.87	429.49	442.66
Gadsby Power Plant	0.60	1.70	1.90	0.56	1.95	0.81	1.52	0.46	0.59	1.16	0.88
Tesoro Refinery	982.63	1107.10	712.12	879.66	931.90	795.31	708.30	499.46	22.56	17.60	18.14
Chevron Refinery*	1,115.60	791.93	1,332.00	2,200.66	591.85	24.31	23.89	32.38	37.65	37.58	38.73
Big West Refinery*	573.87	441.66	272.48	360.77	377.39	188.71	57.14	55.43	50.63	70.54	72.70
HF Sinclair Refinery*	864.05	787.67	451.90	574.09	452.99	131.03	102.33	44.35	20.04	12.17	12.55
Total	5,092.05	3,919.25	3,709.15	4,793.01	3,326.16	1,837.06	1,696.32	1,220.03	560.34	568.54	585.66

3 *Located in Davis County.

4
 5 Table 15 provides another look at the long-term emission trends, the magnitude of reductions
 6 achieved, and the stability of emissions inventory through the maintenance period. The table
 7 presents triennial actual SO₂ emissions for the six explicitly modeled stationary sources from
 8 1996 through 2023, along with projected emissions through 2040. The data show a substantial
 9 long-term downward trend in emissions across the nonattainment area. Total emissions declined
 10 from 5,002.05 tpy in 1996 to 568.54 tpy in the 2023 base year, representing an overall reduction
 11 of approximately 89%. The most significant reductions occurred between 2008 and 2017 and are
 12 primarily attributable to process changes, fuel switching, installation of control technologies, and
 13 enforceable AO limits at the point source facilities.

14
 15 Emissions have remained relatively stable in recent years, with totals of 560.34 tpy in 2020 and
 16 568.54 tpy in 2023. Projected emissions for 2040 are 585.66 tpy, reflecting only a modest
 17 increase over the base-year of 2023. Individual facility projections show minor changes, and
 18 overall emissions remain far below historical levels and facility-wide maximum allowable
 19 emission limits. The long-term downward trend and the stability of recent and projected
 20 emissions inventory further support the conclusion that the area has attained the SO₂ NAAQS
 21 and is expected to continue to maintain the standard through 2040.

ii. Revise in Eight Years

CAA 175A(b) – 8 years after redesignation of any area as an attainment area, the State shall submit an additional revision of the applicable plan for maintaining the national primary ambient air quality standard for 10 years after the expiration of the 10-year period. Utah commits to submit a revised maintenance plan eight years after the EPA takes final action redesignating Tooele County area to attainment, as required by the CAA.

iii. Nonattainment Requirements Applicable Pending Plan Approval

CAA 175A(c) – Until such plan revision is approved and an area is redesignated as attainment, the requirements of CAA Part D, Plan Requirements for Nonattainment Areas, shall remain in force and effect. The CAA requires the continued implementation of the nonattainment area control strategy unless such measures are shown to be unnecessary for maintenance or are replaced with measures that achieve equivalent reductions. Utah will continue to implement the emissions limitations and measures from the SO₂ SIP.

iv. Contingency Plan

CAA 175A(d) – Each maintenance plan shall contain contingency measures to assure that the State will promptly correct any violation of the standard which occurs after the redesignation of the area to attainment. Such provisions shall include a requirement that the State will implement all control measures which were contained in the SIP prior to redesignation.

The contingency plan must also ensure that the contingency measures are adopted expeditiously once triggered. The primary elements of the contingency plan are: 1) the list of potential contingency measures; 2) the tracking and triggering mechanisms to determine when contingency measures are needed; and 3) a description of the process for recommending and implementing the contingency measures.

Tracking

The tracking plan for the Salt Lake County and part of Tooele County nonattainment area consists of monitoring and analyzing ambient SO₂ concentrations. In accordance with 40 CFR 58, the State will continue to operate and maintain an adequate SO₂ monitoring network in the nonattainment area.

Triggering

Triggering of the contingency plan does not automatically require a revision to the SIP, nor does it mean that the area will automatically be redesignated once again to nonattainment. Instead, the State will have an appropriate timeframe to correct the potential violation with implementation

1 of one or more adopted contingency measures. In the event that violations continue to occur,
2 additional contingency measures will be adopted until the violations are corrected.

3
4 Upon notification of a potential violation of the SO₂ NAAQS, the State will develop appropriate
5 contingency measures intended to prevent or correct violation of the standard. Information about
6 historical exceedances of the standard, the meteorological conditions related to the recent
7 exceedances, and the most recent estimates of growth and emissions will be reviewed. The
8 possibility that an exceptional event occurred will also be evaluated.

9
10 Upon monitoring a potential violation of the SO₂ NAAQS, including exceedances flagged as
11 exceptional events but not concurred with by EPA, the State will identify a means of corrective
12 action within six months after a potential violation. The maintenance plan contingency measures
13 will be chosen from the following list based on consideration of cost-effectiveness, emission
14 reduction potential, economic and social considerations, or other factors that the State deems
15 appropriate:

- 16 • Re-evaluate the permissible sulfur content of fuels for commercial and industrial sources,
17 as established in Rule R307-203.
- 18 • Further controls on the stationary sources in the nonattainment area that are listed below:
 - 19 ○ Kennecott Smelter and Refinery;
 - 20 ○ Gadsby Power Plant;
 - 21 ○ Tesoro Refinery;
 - 22 ○ Chevron Refinery;
 - 23 ○ Big West Refinery; and
 - 24 ○ HF Sinclair Refinery.

25
26 The State will then hold a public hearing to consider the contingency measures identified to
27 address the potential violation. The State will require implementation of such corrective action
28 no later than one year after the violation is confirmed. Any contingency measures adopted and
29 implemented will become part of the next revised maintenance plan submitted to the EPA for
30 approval.

31 v. Verification of Continued Maintenance and Monitoring

32 Implicit in the requirements outlined above is the need for the State to determine whether the
33 area is in fact maintaining the standard it has achieved. There are two complementary ways to
34 measure this: 1) by monitoring the ambient air for SO₂; and 2) by inventorying emissions of SO₂
35 from various sources.

36
37 The State will continue to maintain an ambient monitoring network for SO₂ in accordance with
38 40 CFR Part 58 and the Utah SIP. The State anticipates that the EPA will continue to review the

1 ambient monitoring network for SO₂ each year, and any necessary modifications to the network
2 will be implemented.

3
4 Additionally, the State will track new and modified stationary source permits. If the resulting
5 emissions change significantly over time, the State will perform appropriate studies to determine:
6 1) whether additional and/or re-sited monitors are necessary; and 2) whether stationary source
7 emission projections are on target. The State will also continue to collect actual emissions
8 inventory data from sources at thresholds defined in Rule R307-150 and will review and update
9 the annual emissions inventory for the nonattainment area at a minimum of once every three
10 years to ensure continued maintenance of the SO₂ standard.

ITEM 6



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Tim Davis
Commissioner

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-027-26

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

THROUGH: Jazmine Lopez, Rules Coordinator

FROM: Ana Williams, Environmental Scientist

DATE: June 18, 2026

SUBJECT: PROPOSE FOR FINAL ADOPTION: Amend Section R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits; Amend Utah State Implementation Plan, Section IX.H.12 and Section IX.H.13: Emission Limitations and Operating Practices.

On December 19, 2025, the Environmental Protection Agency (EPA) approved the redesignation of the Salt Lake City, UT and Provo, UT nonattainment areas (NAA) to attainment for the 2006 24-hour PM_{2.5} standard and approved multiple related state implementation plan (SIP) submissions. Now that the Salt Lake City, UT and Provo, UT areas have been re-designated as attainment for the PM_{2.5} standard, the division has received several requests to update conditions contained in the PM_{2.5} SIP Sections IX.H.12 and IX.H.13, affecting seven total sources.

A Clean Air Act 110(l) Demonstration has been prepared for two of these amendments that will result in a slight increase in emission limitations for two sources, HF Sinclair Woods Cross Refinery and McWane Ductile. After the final stages of state rulemaking, this 110(l) Demonstration will be proposed by EPA at the federal level for rulemaking. Details regarding the additional analysis and supporting information surrounding these two amendments can be found in the documentation associated with the proposed revisions.

One emission limitation in SIP Section IX.H.12.(g)(i)(A) for HF Sinclair Woods Cross Refinery's Reformer Reheat Furnace 6H1 is being increased from 0.15 lb/MMBtu to 0.20 lb/MMBtu. During the original drafting period of this emission limit, HF Sinclair proposed the existing limit based on best engineering judgement. This emission unit was constructed in 1957, and due to its age, HF Sinclair did not

have existing vendor emission performance guarantees nor testing data. Since the final adoption of this emission limit, HF Sinclair has conducted engineering NO_x emissions testing and determined that the original limit of 0.15 lb/MMBtu is not achievable. After reviewing the submitted information, the division agrees with HF Sinclair's assessment and proposes that the limit on the Reformer Reheat Furnace 6H1 should be increased to 0.20 lb/MMBtu.

One emission limitation in SIP Section IX.H.13(c)(ii) for McWane Ductile's Annealing Oven is being increased from 63.29 MMBtu/hr to 76.5 MMBtu/hr. McWane Ductile has requested to reconstruct their existing annealing oven, which will result in an increase in the annealing oven's size and burner capacity. The new oven is needed to improve balanced heating of the products, add the ability to control the target temperature of the oven, and improve the thermal penetration in the oven. After reviewing the submitted application, the division is proposing that the limit on the Annealing Oven should be increased to 76.5 MMBtu/hr.

In addition to these two emission limitation amendments, the division is proposing to remove conditions from Section IX.H.13 for the following five sources: (1) Brigham Young University – Main Campus; (2) Geneva Nitrogen Inc. – Geneva Nitrogen Plant; (3) Payson City Corporation – Payson City Power; (4) Provo City Power – Power Plant; and (5) Springville City Corporation – Whitehead Power Plant. These five sources fall below the 70 ton per year (TPY) threshold for Serious 2006 24-hour PM_{2.5} major stationary sources and are therefore considered minor sources and were not included in EPA's final redesignation action. The removal of these five sources will not impact existing permit conditions and requirements for the sources, and these sources will continue to be regulated through the division's Minor Source Permitting Section.

On April 1, 2026, the Utah Air Quality Board approved the proposed amendments for a 30-day public comment period. This public comment period began on April 15, 2026, and ended on May 15, 2026. During this time, the division received written comments from one commenter, who also presented oral comments during the public hearing which was held on May 12, 2026.

The division has reviewed and evaluated all comments received during this 30-day public comment period in accordance with the Utah Administrative Rulemaking Act, Utah Code § 63G-3-301(11)(b). All written comments received by the division have been posted on its webpage where they can be viewed in their entirety. A summary of comments received, and the division's responses can be found in Appendix A of the Board packet.

The comments received came from the general public, and included:

- A request to reconsider the increase in HF Sinclair Woods Cross Refinery's NO_x emission limit based on concern with pollution along the Northern Wasatch Front.
- A request to reconsider the increase in McWane Ductile's Annealing Oven limit increase based on concern that Utah is loosening protections.
- Concern regarding the removal of minor sources from the SIP requirements.
- General comments regarding loosening of emission limits after the area reached attainment.
- General comments regarding the Great Salt Lake, dust, and data center concerns.

After review and consideration of comments, no changes were made to the proposed amendments.

Recommendation: Staff recommend the Board approve the amendments to Section R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits; Amend Utah State Implementation Plan, Section IX.H.12 and Section IX.H.13: Emission Limitations and Operating Practices, for final adoption.

NOTICE OF SUBSTANTIVE CHANGE**TYPE OF FILING:** Amendment**Rule or section number:****R307-110-17****Filing ID:** 57883**Agency Information**

1. Title catchline:	Environmental Quality, Air Quality	
Building:	Multi-Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144820	
City, state and zip:	Salt Lake City, UT 84114-4820	
Contact persons:		
Name:	Phone:	Email:
Jazmine Lopez	801-536-4050	jazminelopez@utah.gov
Ana Williams	385-306-6505	anawilliams@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R307-110-17. Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits
4. Purpose of the new rule or reason for the change:
The Utah Air Quality Board has proposed for public comment amendments to the Utah State Implementation Plan (SIP), amending Subsections IX.H.12 and IX.H.13 Source-Specific Emission Limitations to comply with source requests for emission limitation changes. Section R307-110-17 incorporates SIP Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits into this rule, and shall be amended to change the Board adoption date to the anticipated adoption date of the amended plan.
5. Summary of the new rule or change:
This rule amendment is in response to source requests to change emission limitations after US EPA approval of the Utah PM2.5 nonattainment redesignation. The following plan amendments are being proposed: 1) increase the emission limitation for one source under Subsection IX.H.12 Source-Specific Emission Limitations; 2) increase the emission limitation for one source under Subsection IX.H.13 Source-Specific Emission Limitations; or 3) remove requirements for five minor sources under Subsection IX.H.13 Source-Specific Emission Limitations that do not need to be included in the state requirements due to minor source status. The plan also includes a 110(l), or anti-backsliding, demonstration to show that the relaxation of requirements will not interfere with continued attainment or maintenance of National Ambient Air Quality Standards, and quantitatively or qualitatively show that it has a negligible air quality impact.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:
A. State budget:
This rule amendment is not expected to create additional costs or savings for the state government. These facilities are already permitted and inspected under existing rules and have existing compliance requirements in place.
B. Local governments:
This rule amendment is not expected to impact local governments; therefore, no costs or savings are anticipated.
C. Small businesses ("small business" means a business employing 1-49 persons):
This rule amendment is not expected to impact small businesses; therefore, no costs or savings are anticipated.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons):

This rule amendment is not expected to create additional costs or savings for seven non-small businesses.

The increased emission limitations for two non-small businesses (HF Sinclair Woods Cross Refinery and McWane Ductile) will not fundamentally change how those businesses operate or are inspected because all existing requirements will stay the same for these two sources.

The removal of the five non-small businesses (Brigham Young University: Main Campus, Geneva Nitrogen Inc.: Geneva Nitrogen Plant, Payson City Corporation: Payson City Power, Provo City Power: Power Plant, and Springville City Corporation: Whitehead Power Plant) from Subsection IX.H.13 will not change existing minor source permitting requirements or compliance requirements, and therefore all existing requirements will stay the same for these five sources.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

This rule amendment does not apply to persons other than small business, non-small businesses, state, or local government entities; therefore, no additional costs are expected as a result of these changes.

F. Compliance costs for affected persons:

There are no additional compliance costs expected for the seven non-small businesses because all existing compliance requirements will stay the same for these sources.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)**Regulatory Impact Summary Table**

Fiscal Cost	FY2026	FY2027	FY2028	FY2029	FY2030
State Budget	\$0	\$0	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0	\$0	\$0
Total Fiscal Cost	\$0	\$0	\$0	\$0	\$0
Fiscal Benefits	FY2026	FY2027	FY2028	FY2029	FY2030
State Budget	\$0	\$0	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0	\$0	\$0
Total Fiscal Benefits	\$0	\$0	\$0	\$0	\$0
Net Fiscal Benefits	\$0	\$0	\$0	\$0	\$0

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information**7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:**

Section 19-2-104	40 CFR 51, Subpart Z	
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Incorporation by Reference Information**8. Incorporation by Reference** (if this rule incorporates more than two items by reference, please include additional tables):

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	Utah State Implementation Plan, Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits and Operating Practices.
Publisher	Division of Air Quality (DAQ), Utah Department of Environmental Quality
Issue Date	July 1, 2026

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.**A. Comments will be accepted until:**

05/15/2026

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.):

Date:

05/12/2026

Time (hh:mm AM/PM):

03:00 PM - 04:00 PM

Place (physical address or URL):

A public hearing is set for 05/12/2026.

Further details may be found below. The hearing will be cancelled should no request for one be made by 05/11/2026, at 10 AM MT. The final status of the public hearing will be posted on 05/11/2026, after 10 AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule.
<https://deq.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment>

Interested Persons can participate in person or electronically, via the internet.

In Person:

MASOB

195 N 1950 W, Salt Lake City, UT

First Floor, Air Quality Board Room

Virtual Attendance:

Time zone: America/Denver

Google Meet joining info:

Video call link: <https://meet.google.com/tvd-adeq-xry>

Or dial: (US) +1 402-307-1278

PIN: 367 842 220#

10. This rule change MAY become effective on:

07/01/2026

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.

Agency Authorization Information

Agency head or designee and title:

Bryce C. Bird, Director, DAQ

Date:

03/13/2026

R307. Environmental Quality, Air Quality.

R307-110. General Requirements: State Implementation Plan.

R307-110-17. Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits.

The Utah State Implementation Plan, Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits and Operating Practices, as most recently amended by the Utah Air Quality Board on ~~May 7, 2025~~ **July 1, 2026**, pursuant to Section 19-2-104, is incorporated by reference and made a part of Rule R307-110.

KEY: air pollution, PM10, PM2.5, ozone

Date of Last Change: ~~July 2, 2025~~ **2026**

Notice of Continuation: December 1, 2021

Authorizing, and Implemented or Interpreted Law: 19-2-104

H.12. Source-Specific Emission Limitations in Salt Lake City – UT PM2.5 Nonattainment Area

a. ATK Launch Systems Inc. Promontory

i. During the period November 1 to February 28/29 on days when the 24-hour average PM2.5 levels exceed 35 µg/m3 at the nearest real-time monitoring station, the open burning of reactive wastes with properties identified in 40 CFR 261.23 (a) (6) (7) (8) may be conducted when the 24-hour average PM2.5 levels exceed 35 µg/m3 at the nearest real time monitoring station in limited quantities. Limited quantities, as authorized in the facility's RCRA Subpart X permit, of time sensitive reactive wastes may be open burned when the 24-hour average PM2.5 levels exceed 35 µg/m3 at the nearest real-time monitoring station.

ii. During the period November 1 to February 28/29, on days when the 24-hour average PM2.5 levels exceed 35 µg/m3 at the nearest real-time monitoring station, the following shall not be tested:

A. Propellant, energetics, pyrotechnics, flares and other reactive compounds greater than 2,400 lbs. per day; or

B. Rocket motors less than 1,000,000 lbs. of propellant per motor subject to the following exception:

I. A single test of rocket motors less than 1,000,000 lbs. of propellant per motor is allowed on a day when the 24-hour average PM2.5 level exceeds 35 µg/m3 at the nearest real-time monitoring station provided notice is given to the Director of the Utah Air Quality Division. No additional tests of rocket motors less than 1,000,000 lbs. of propellant may be conducted during the inversion period until the 24-hour average PM2.5 level has returned to a concentration below 35 µg/m3 at the nearest real-time monitoring station.

C. During this period, records will be maintained identifying the size of the rocket motors tested and the 24-hour average PM2.5 level at the nearest real-time monitoring station on days when motor testing occurs.

iii. Natural Gas-Fired Boilers

A. Building M-576

I. One 71 MMBTU/hr boiler shall be upgraded with low NOx burners and flue gas recirculation by January 2016. The boiler shall be rated at a maximum of 9 ppm. The remaining boiler shall not consume more than 100,000 MCF of natural gas per rolling 12-month period unless upgraded so the NOx emission rate is no greater than 30 ppm.

II. Emissions to the atmosphere from the Cleaver Brooks 71 MMBTU/hr boiler in building M-576 shall not exceed the following concentration:

1. Pollutant ppm_{dv} (3% O₂ dry)
NOX 9
2. Compliance with the above emission limits shall be determined by stack test as outlined in Section IX Part H.11.e of this SIP.
3. Subsequent to initial compliance testing, stack testing is required every three years.

B. Building M-14

I. The two 25 MMBTU/hr boilers shall be upgraded with low NO_x burners and flue gas recirculation by December 31, 2024. The boiler shall be rated at a maximum of 9 ppm.

II. Emissions to the atmosphere from the two (2) Cleaver Brooks 25 MMBTU/hr boilers in building M-14 shall not exceed the following concentrations:

1. Pollutant ppm_{dv} (3% O₂ dry)
NOX 9
2. Compliance with the above emission limits shall be determined by stack test as outlined in Section IX Part H.11.e of this SIP.
3. Subsequent to initial compliance testing, stack testing is required every three years.

b. Big West Oil, LLC Refinery

- i. NO_x emissions to the atmosphere from the indicated emission points shall not exceed the following rates and concentrations.

Emission Points	Emission Rate (lb/MMBtu)
A. FCC Heater H-101	0.16 lb/MMBtu
B. Reformer Heaters H-621, 622, 624	0.08 lb/MMBtu
C. #1 Boiler	0.035 lb/MMBtu
D. #6 Boiler	0.035 lb/MMBtu

- ii. Initial NO_x stack testing has been performed for the #1 Boiler and #6 Boiler. For these units, stack testing shall be performed no later than December 31st, 2025. Subsequent stack testing shall be conducted at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as

outlined in IX.H.11.e.

iii. Initial compliance testing for FCC Heater H-101, Reformer Heater H-621, Reformer Heater H-622, and Reformer Heater H-624 is required. The initial test shall be performed no later than December 31st, 2025. After the initial compliance test, stack testing shall be performed at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.

iv. In lieu of the stack testing requirements listed above, any units equipped with a CEMs shall determine compliance with the emission limits by the CEMs. For units equipped with CEMs, compliance shall be determined on a 30-day rolling average. The CEMs shall operate as outlined in IX.H.11.f.

v. Alternate Startup and Shutdown Requirements

A. During any day which includes startup or shutdown of the FCCU, combined emissions of SO₂ shall not exceed 1.2 tons per day (tpd). For purposes of this subsection, a "day" is defined as a period of 24-hours commencing at midnight and ending at the following midnight.

B. The total number of days which include startup or shutdown of the FCCU shall not exceed ten (10) per 12-month rolling period.

vi. No later than January 1, 2019, the owner/operator shall install the following to control emissions from the listed equipment:

Emission Unit	Control Equipment
FCCU Regenerator	Flue gas blowback "Pall Filter," quaternary cyclones with fabric filter
H-404 #1 Crude Heater	Ultra-low NO _x burners
Refinery Flares	Subpart Ja, and MACT CC flaring standards
SRU	Tail gas incinerator and redundant caustic scrubber
Product Loading Racks	Vapor recovery and vapor combustors
Wastewater Treatment System	API separator fixed cover, carbon adsorber canisters to be installed 2019

c. Chemical Lime Company (LHoist North America) Lime Production Kiln

i. No later than January 1, 2019, or upon source start-up, whichever comes later, SNCR technology shall be installed on the Lime Production Kiln.

A. Effective January 1, 2019, or upon source start-up, whichever comes later, NO_x emissions shall not exceed 56 lb/hr. (3-hr rolling average)

- 1 B. Compliance with the above emissions limit shall be determined by stack
2 testing as outlined in Section IX Part H.11.e of this SIP.
3
- 4 ii. No later than January 1, 2019, or upon source start-up, whichever comes later, a
5 baghouse control technology shall be installed and operating on the Lime
6 Production Kiln.
7
- 8 A. Effective January 1, 2019, or upon source start-up, whichever comes later, PM
9 emissions shall not exceed 0.12 pounds per ton (lb/ton) of stone feed. (3-hr
10 rolling average)
11
- 12 B. Effective January 1, 2019, or upon source start-up, whichever comes later,
13 PM2.5 (filterable + condensable) emissions shall not exceed 1.5 lbs/ton of
14 stone feed. (3-hr rolling average)
15
- 16 C. Compliance with the above emission limits shall be determined by stack
17 testing as outlined in Section IX Part H.11.e of this SIP and in accordance
18 with 40 CFR 63 Subpart AAAAA.
19
- 20 iii. An initial compliance test is required no later than January 1, 2019 (if start-up
21 occurs on or before January 1, 2019) or within 180 days of source start-up (if
22 start-up occurs after January 1, 2019) All subsequent compliance testing shall be
23 performed at least once annually based upon the date of the last compliance test.
24
- 25 iv. Upon plant start-up kiln emissions shall be exhausted through the baghouse
26 during all startup, shutdown, and operations of the kiln.
27
- 28 v. Start-up/shut-down provisions for SNCR technology are as follows:
29
- 30 A. No ammonia or urea injection during startup until the combustion gases
31 exiting the kiln reach the temperature when NOx reduction is effective, and
32
- 33 B. No ammonia or urea injection during shutdown.
34
- 35 C. Records of ammonia or urea injection shall be documented in an operations
36 log. The operations log shall include all periods of start-up/shut-down and
37 subsequent beginning and ending times of ammonia or urea injection which
38 documents v.a and v.b above.
39
- 40 d. Chevron Products Company – Salt Lake Refinery
41
- 42 i. NOx Emissions to the atmosphere from the indicated emission points shall not
43 exceed the following rates and concentrations.
44

Emission Points	Emission Rate (lb/MMBtu)
A. F-11005 Boiler #5	0.20 lb/MMBtu

B. F-11006 Boiler #6	0.20 lb/MMBtu
C. F-11007 Boiler #7	0.20 lb/MMBtu
D. F-21001 Crude Furnace #1	0.09 lb/MMBtu
E. F-21002 Crude Furnace #2	0.09 lb/MMBtu
F. F-32021 FCC Furnace #1	0.17 lb/MMBtu
G. F-32023 FCC Furnace #2	0.17 lb/MMBtu
H. F-35001 Reformer Furnace F-1	0.17 lb/MMBtu
I. F-35002 Reformer Furnace F-2	0.17 lb/MMBtu
J. F-36017 Alkylation Furnace	0.12 lb/MMBtu
K. F-70001 Coker Furnace	0.16 lb/MMBtu
L. F-66100 VGO Furnace #1	0.05 lb/MMBtu
M. F-66200 VGO Furnace #2	0.05 lb/MMBtu

- ii. Initial NO_x stack testing has been performed for the following units: F-11005 Boiler #5, F-11006 Boiler #6, F-21001 Crude Furnace #1, F-21002 Crude Furnace #2, F-36017 Alkylation Furnace, and F-70001 Coker Furnace. For these units, stack testing shall be conducted at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
- iii. For F-11007 Boiler #7, NO_x emissions shall be monitored by CEMs to determine compliance. The CEM shall operate as outlined in IX.H.11.f.
- iv. Initial compliance testing for F-66100 VGO Furnace #1 and F-66200 VGO Furnace #2 is required. The initial test shall be performed no later than December 31st, 2025. After the initial compliance test, stack testing shall be performed at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
- v. A stack testing port shall be installed for F-32021 FCC Furnace #1, F-32023 FCC Furnace #2, F-35001 Reformer Furnace F-1, and F-35002 Reformer Furnace F-2 and initial compliance testing shall be performed no later than December 31st, 2027. After the initial compliance test, stack testing shall be performed at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
- vi. In lieu of the stack testing requirements listed above, any units equipped with a CEMs shall determine compliance with the emission limits by the CEMs. For units equipped with CEMs, compliance shall be determined on a 30-day rolling average. The CEMs shall operate as outline in IX.H.11.f.
- vii. Emergency and Standby Equipment and Alternative Fuels
 - A. Plant coke may be burned in the FCC Catalyst Regenerator.

viii. Compressor Engine Requirements

A. Emissions of NOx from each rich-burn compressor engine shall not exceed the following:

Engine Number	NOx in ppmvd @ 0% O2
K35001	236
K35002	208
K35003	230

B. Initial stack testing to demonstrate compliance with the above emission limitations shall be performed no later than January 1, 2019, and at least once every three years thereafter. Stack testing shall be performed as outlined in IX.H.11.e.

ix. No later than January 1, 2019, the owner/operator shall install the following to control emissions from the listed equipment:

Emission Unit	Control Equipment
Boilers: 5, 6, 7	Low NOx burners and flue gas recirculation (FGR)
Cooling Water Towers	High efficiency drift eliminators
Crude Furnaces F21001, F21002	Low NOx burners
Crude Oil Loading	Vapor Combustion Unit (VCU)
FCC Regenerator Stack	Vacuum gas oil hydrotreater, Electrostatic precipitator (ESP) and cyclones
Flares: Flare 1, 2	Flare gas recovery system
HDS Furnaces F64010, F64011	Low NOx burners
Reformer Compressor Drivers K35001, K35002, K35003	Selective Catalytic Reduction (SCR)
Sulfur Recovery Unit 1	Tail gas treatment unit and tail gas incineration
Sulfur Recovery Unit 2	Tail gas treatment unit and tail gas incineration
Wastewater Treatment Plant	Existing wastewater controls system of induced air flotation (IAF) and regenerative thermal oxidation (RTO). Upon completion of startup and initial commissioning, the Dissolved Nitrogen Flootation (DNF) process is allowed instead of the IAF system

e. Compass Minerals Ogden Inc.

- i. NO_x emissions to the atmosphere from the indicated emission point shall not exceed the following concentrations:

Emission Points	Concentration (ppm)	lb/hr
Boiler #1	9.0	1.3
Boiler #2	9.0	1.3

Compliance with the above emission limits shall be determined by stack test as outlined in Section IX Part H.11.e of this SIP. A compliance test shall be performed at least annually subsequent to the initial compliance test.

- ii. PM_{2.5} emissions (filterable+condensable) to the atmosphere from each of the following emission points shall not exceed the listed concentration and lb/hr emission rates:

Emission Unit	PM _{2.5} Emission Rate (lb/hr)	Concentration Emission Rate (grains/dscf)
AH-500	1.61	0.01
AH-502	0.74	0.04
AH-513	1.49	0.0114
BH-001	0.37	0.01
BH-002	0.47	0.01
BH-008	4.25	0.01
BH-501	1.15	0.01
BH-502	0.06	0.0053
BH-503	0.23	0.01
BH-505	0.12	0.01
AH-1555	0.39	0.01
BH-1400	2.78	0.02
AH-692	0.12	0.01
BH-1516	0.22	0.01

A. Compliance with the above emission limits shall be determined by stack test as outlined in Section IX Part H.11.e of this SIP. Compliance testing shall be performed annually.

B. Process emissions shall be routed through operating controls prior to being emitted to the atmosphere.

- iii. Emissions of VOC from all Magnesium Chloride Evaporators (four stacks total) shall not exceed 6.18 lb/hr.

A. Compliance shall be determined by stack test as outlined in Section IX Part

H.11.e of this SIP. Compliance testing shall be performed at least once every three years.

B. Process emissions shall be routed through operating controls prior to being emitted to the atmosphere.

f. Hexcel Corporation: Salt Lake Operations

i. The following limits shall not be exceeded for fiber line operations:

A. 5.50 MMscf of natural gas consumed per day.

B. 0.061 MM pounds of carbon fiber produced per day.

C. Compliance with each limit shall be determined by the following methods:

I. Natural gas consumption shall be determined by examination of natural gas billing records for the plant and onsite pipe-line metering.

II. Fiber production shall be determined by examination of plant production records.

III. Records of consumption and production shall be kept on a daily basis for all periods when the plant is in operation.

ii. After a shutdown and prior to startup of fiber lines 13 to 16, the line's baghouse(s) and natural gas injection dual chambered regenerative thermal oxidizer shall be started and remain in operation during production.

A. During fiber line production, the static pressure differential across the filter media shall be within the manufacturer's recommended range and shall be recorded daily.

B. The manometer or the differential pressure gauge shall be calibrated according to the manufacturer's instructions at least once every 12 months.

iii. Filter boxes will be installed on Fiber lines 13 and 14 to control PM_{2.5} emissions no later than December 31, 2019.

iv. After a shutdown and prior to startup of the fiber lines, the residence time and temperature associated with the regenerative thermal-oxidation fume incinerators and solvent-coating fume incinerators shall be started and remain in operation during production.

A. Unless otherwise indicated, the carbon fiber production thermal-oxidation fume incinerators the minimum temperature shall be 1,400 deg F and the residence time shall be greater than or equal to 0.5 seconds

Solvent-coating fume incinerators the minimum temperature shall be 1,450 deg F and the residence time shall be greater than or equal to 0.5 seconds

For fiber lines 6, 7, 8, 10, 11, 12, and the line associated with the Research and Development Facility, the solvent coating fume incinerators temperature shall range from 1,400 to 1,700 deg F and the residence time shall be greater than or equal to 1.0 second

Residence times shall be determined by:

$$R = V /$$

Q_{max}

Where

R = residence time

V = interior volume of the incinerator – ft³

Q_{max} = maximum exhaust gas flow rate – ft³/second

- B. Incinerator 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 shall be accurate within $\pm 25^{\circ}\text{F}$ at operating temperature. 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.

g. HF Sinclair Woods Cross Refinery

- i. NO_x Emissions to the atmosphere from the indicated emission points shall not exceed the following rates and concentrations.

Emission Points	Emission Rate (lb/MMBtu)
A. Reformer Reheat Furnace 6H1	0.15 0.20 lb/MMBtu
B. Crude Furnace #1 8H2	0.04 lb/MMBtu
C. NHDS Reactor Charge Furnace 12H1	0.10 lb/MMBtu
D. Fractionator Charge Heater 20H2	0.04 lb/MMBtu
E. Boiler #5	0.02 lb/MMBtu
F. Boiler #8	0.02 lb/MMBtu
G. Boiler #9	0.02 lb/MMBtu
H. Boiler #10	0.02 lb/MMBtu
I. Boiler #11	0.02 lb/MMBtu

- ii. A stack testing port shall be installed for Reformer Reheat Furnace 6H1 and initial compliance testing shall be performed no later than December 31st, 2028. After the initial compliance test, stack testing shall be performed at least once

within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.

- iii. Initial NO_x stack testing has been performed for the following units: Crude Furnace #1 8H2, NHDS Reactor Charge Furnace 12H1, Boiler #5, Boiler #8, Boiler #9, Boiler #10, and Boiler #11. For these units, stack testing shall be conducted at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
- iv. Initial compliance testing for the Fractionator Charge Heater 20H2 is required. The initial test shall be performed no later than December 31st, 2025. After the initial compliance test, stack testing shall be performed at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
- v. In lieu of the stack testing requirements listed above, any units equipped with a CEMs shall determine compliance with the emission limits by the CEMs. For units equipped with CEMs, compliance shall be determined on a 30-day rolling average. The CEMs shall operate as outlined in IX.H.11.f.
- vi. No later than January 1, 2019, the owner/operator shall install the following to control emissions from the listed equipment:

Emission Unit	Control Equipment
Process heaters and boilers	Boilers 8&11: LNB+SCR Boilers 5, 9 & 10: SCR Process heaters 20H2, 20H3, 24H1, 25H1: ULNB
Cooling water towers 10, 11	High efficiency drift eliminators
FCCU regenerator stacks	WGS with Lo-TO _x
Flares	Flare gas recovery system
Sulfur recovery unit	Tail gas incineration and WGS with Lo-TO _x
Wastewater treatment plant	API separators, dissolved gas floatation (DGF), moving bed bio-film reactors (MBBR)

h. Kennecott Utah Copper (KUC): Mine

i. Bingham Canyon Mine (BCM)

- A. Maximum total mileage per calendar day for diesel-powered ore and waste haul trucks shall not exceed 30,000 miles.

KUC shall keep records of daily total mileage for all periods when the mine is in operation. KUC shall track haul truck miles with a Global Positioning System or equivalent. The system shall use real time tracking

to determine daily mileage.

- B. To minimize fugitive dust on roads at the mine, the owner/operator shall perform the following measures:
 - I. Apply water to all active haul roads as weather and operational conditions warrant except during precipitation or freezing weather conditions, and shall apply a chemical dust suppressant to active haul roads located outside of the pit influence boundary no less than twice per year.
 - II. Chemical dust suppressant shall be applied as weather and operational conditions warrant except during precipitation or freezing weather conditions on unpaved access roads that receive haul truck traffic and light vehicle traffic.
 - III. Records of water and/or chemical dust control treatment shall be kept for all periods when the BCM is in operation.
 - IV. KUC is subject to the requirements in the most recent federally approved Fugitive Emissions and Fugitive Dust rules.
- C. The In-pit crusher baghouse shall not exceed a PM2.5 emission limit of 0.78 lbs/hr (0.007 gr/dscf) PM2.5 monitoring shall be performed by stack testing every three years.

ii. Copperton Concentrator (CC)

- A. Control emissions from the Product Molybdenite Dryers with a scrubber during operation of the dryers.

During operation of the dryers, the static pressure differential between the inlet and outlet of the scrubber shall be within the manufacturer's recommended range and shall be recorded weekly.

The manometer or the differential pressure gauge shall be calibrated according to the manufacturer's instructions at least once per year.

The remaining heaters shall not operate more than 300 hours per rolling 12- month period unless upgraded so the NOx emission rate is no greater than 30 ppm.

i. Kennecott Utah Copper (KUC): Power Plant

i. Utah Power Plant

- A. The following requirements are applicable to Unit #4:

- I. Only natural gas shall only be used as a fuel, unless the supplier or transporter of natural gas imposes a curtailment. Unit #4 may then burn coal, only for the duration of the curtailment plus sufficient time to empty the coal bins following the curtailment. The Director shall be notified of the curtailment within 48 hours of when it begins and within 48 hours of when it ends.
- II. Emissions to the atmosphere when burning natural gas shall not exceed the following rates and concentrations:

Pollutant	grains/dscf	ppmdv	lbs/hr	
	lbs/MMBtu	68oF.	29.92 in Hg	3%
O2				

1. PM2.5:
Filterable 0.004 Filterable + condensable 0.03
2. NOx: 30 32 0.04

- B. Upon commencement of operation of Unit #4, stack testing to demonstrate compliance with each emission limitation in IX.H.12.j.i.A and IX.H.12.j.i.B shall be performed as follows:

* Initial compliance testing for the Unit 4 boiler is required. Initial testing shall be performed when burning natural gas. The initial test shall be performed within 60 days after achieving the maximum heat input capacity production rate at which the affected facility will be operated and in no case later than 180 days after the initial startup of a new emission source.

The limited use of natural gas during maintenance firings and break-in firings does not constitute operation and does not require stack testing.

Pollutant	Test Frequency
I. PM2.5	every year
II. NOx	every year

- C. Unit #5 (combined cycle, natural gas-fired combustion turbine) shall not exceed the following emission rates to the atmosphere:

Pollutant	lbs/hr	ppmdv (15% O2 dry)
I. PM2.5 with duct firing: Filterable + condensable	18.8	

II. VOC:	2.0
III. NOx:	2.0

- D. Upon commencement of operation of Unit #5*, stack testing to demonstrate compliance with the emission limitations in IX.H.12.m.i.B shall be performed as follows for the following air contaminants

* Initial compliance testing for the natural gas turbine and duct burner is required. The initial test shall be performed within 60 days after achieving the maximum heat input capacity production rate at which the affected facility will be operated and in no case later than 180 days after the initial startup of a new emission source.

The limited use of natural gas during maintenance firings and break-in firings does not constitute operation and does not require stack testing.

Pollutant	Test Frequency
I. PM2.5	every year
II. NOx	every year
III. VOC	every year

j. Kennecott Utah Copper: Smelter and Refinery

i. Smelter:

- A. Emissions to the atmosphere from the indicated emission points shall not exceed the following rates and concentrations:

- I. Main Stack (Stack No. 11)
 1. PM2.5
 - a. 85 lbs/hr (filterable)
 - b. 434 lbs/hr (filterable + condensable)
 2. SO2
 - a. 552 lbs/hr (3 hr. rolling average)
 - b. 422 lbs/hr (daily average)
 3. NOx 154 lbs/hr (daily average)

II. Holman Boiler

1. Nox

a. 14 lbs/hr, (calendar-day average)

- B. Stack testing to show compliance with the emissions limitations of Condition (A) above shall be performed as specified below:

EMISSION POINT	POLLUTANT	TEST FREQUENCY
I. Main Stack (Stack No. 11)	PM2.5	Every Year
	SO2	CEM
	NOx	CEM
II. Holman Boiler	NOx	Every three years and CEMS or alternate method according to applicable NSPS Standards

The Holman boiler shall use an EPA approved test method every three years and in between years use or an approved CEMS or alternate method according to applicable NSPS standards.

- C. During startup/shutdown operations, NOx and SO2 emissions are monitored by CEMS or alternate methods in accordance with applicable NSPS standards.
- D. KUC must operate and maintain the air pollution control equipment and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

ii. Refinery:

- A. Emissions to the atmosphere from the indicated emission point shall not exceed the following rate:

EMISSION POINT	POLLUTANT	MAXIMUM EMISSION RATE
I. The sum of two (Tankhouse) Boilers	NOx	9.5 lbs/hr (before December 2020)
II. (Upgraded Tankhouse Boiler)	NOx	1.5 lbs/hr (After December 2020)
III. Combined Heat Plant	NOx	5.96 lbs/hr

- B. Stack testing to show compliance with the above emission limitations shall be performed as follows:

EMISSION POINT	POLLUTANT	TESTING FREQUENCY
I. Upgraded Tankhouse Boilers	NOx	every three years*
II. Combined Heat Plant	NOx	every year

*Stack testing shall be performed on boilers that have operated more than 300 hours during a three-year period.

- C. One 82 MMBTU/hr Tankhouse boiler shall be upgraded to meet a NOx rating of 9 ppm no later than December 31, 2020. The remaining Tankhouse boiler shall not consume more than 100,000 MCF of natural gas per rolling 12-month period unless upgraded so the NOx emission rate is no greater than 30 ppm.
- D. KUC must operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. Records shall be kept on site which indicate the date and time of startups and shutdowns.

k. Nucor Steel Mills

- i. Emissions to the atmosphere from the indicated emission points shall not exceed the following rates:

A. Electric Arc Furnace Baghouse

I. PM2.5

- 1. 17.4 lbs/hr (24 hr. average filterable)
- 2. 29.53 lbs/hr (24 hr. average condensable)

II. SO2

- 1. 93.98 lbs/hr (3 hr. rolling average)
- 2. 89.0 lbs/hr (daily average)

III. NOx 59.5 lbs/hr (calendar-day average)

IV. VOC 22.20 lbs/hr

B. Reheat Furnace #1 NOx 15.0 lb/hr

C. Reheat Furnace #2 NOx 8.0 lb/hr

- ii. Stack testing to show compliance with the emissions limitations of Condition (i) above shall be performed as outlined in IX.H.11.e and as specified below:

EMISSION POINT	POLLUTANT	TEST FREQUENCY
A. Electric Arc Furnace		
Baghouse	PM2.5	every year
	SO ₂	CEM
	NO _x	CEM
	VOC	every year
B. Reheat Furnace #1	NO _x	every year
C. Reheat Furnace #2	NO _x	every year

- iii. Testing Status (To be applied to (i) and (ii) above)

- A. To demonstrate compliance with the Electric Arc Furnace stack mass emissions limits for SO₂ and NO_x of Condition (i)(A) above, Nucor shall calibrate, maintain, and operate the measurement systems for continuously monitoring for SO₂ and NO_x concentrations and stack gas volumetric flow rates in the Electric

Arc Furnace stack. Such measurement systems shall meet the requirements of R307-170.

- B. For PM_{2.5} testing, 40 CFR 60, Appendix A, Method 5D, or another EPA approved method acceptable to the Director, shall be used to determine total TSP emissions. If TSP emissions are below the PM_{2.5} limit, that will constitute compliance with the PM_{2.5} limit. If TSP emissions are not below the PM_{2.5} limit, the owner/operator shall retest using EPA approved methods specified for PM_{2.5} testing, within 120 days.

- C. Startup/shutdown NO_x and SO₂ emissions are monitored by CEMS.

1. PacifiCorp Energy: Gadsby Power Plant

- i. Steam Generating Unit #1:

- A. Emissions of NO_x shall be no greater than 179 lbs/hr on a three (3) hour block average basis.
- B. Emissions of NO_x shall not exceed 336 ppmdv (@ 3% O₂, dry)
- C. The owner/operator shall install, certify, maintain, operate, and quality-assure a CEM consisting of NO_x and O₂ monitors to determine compliance with the NO_x limitation. The CEM shall operate as outlined in IX.H.11.f.

ii. Steam Generating Unit #2:

- A. Emissions of NO_x shall be no greater than 204 lbs/hr on a three (3) hour block average basis.
- B. Emissions of NO_x shall not exceed 336 ppmdv (@ 3% O₂, dry)
- C. The owner/operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NO_x and O₂ monitors to determine compliance with the NO_x limitation.

iii. Steam Generating Unit #3:

- A. Emissions of NO_x shall be no greater than
 - I. 142 lbs/hr on a three (3) hour block average basis, applicable between November 1 and February 28/29.
 - II. 203 lbs/hr on a three (3) hour block average basis, applicable between March 1 and October 31.
- B. Emissions of NO_x shall not exceed
 - I. 168 ppmdv (@ 3% O₂, dry), applicable between November 1 and February 28/29
 - II. 168 ppmdv (@ 3% O₂, dry), applicable between applicable between March 1 and October 31.
- C. The owner/operator shall install, certify, maintain, operate, and quality-assure a CEM consisting of NO_x and O₂ monitors to determine compliance with the NO_x limitation. The CEM shall operate as outlined in IX.H.11.f.

iv. Steam Generating Units #1-3:

- A. The owner/operator shall use only natural gas as a primary fuel and No. 2 fuel oil or better as back-up fuel in the boilers. The No. 2 fuel oil may be used only during periods of natural gas curtailment and for maintenance firings. Maintenance firings shall not exceed one percent of the annual plant Btu requirement. In addition, maintenance firings shall be scheduled between April 1 and November 30 of any calendar year. Records of fuel oil use shall be kept, and they shall show the date the fuel oil was fired, the duration in hours the fuel oil was fired, the amount of fuel oil consumed during each curtailment, and the reason for each firing.

- v. Natural Gas-fired Simple Cycle, Catalytic-controlled Turbine Units:
 - A. Total emissions of NO_x from all three turbines shall be no greater than 600 lbs/day. For purposes of this subsection a “day” is defined as a period of 24-hours commencing at midnight and ending at the following midnight.
 - B. Emissions of NO_x from each turbine stack shall not exceed 5 ppmvd (@ 15% O₂ dry). Emissions shall be calculated on a 30-day rolling average. This limitation applies to steady state operation, not including startup and shutdown.
 - C. The owner/operator shall install, certify, maintain, operate, and quality-assure a CEM consisting of NO_x and O₂ monitors to determine compliance with the NO_x limitation. The CEM shall operate as outlined in IX.H.11.f.
- vi. Combustion Turbine Startup / Shutdown Emission Minimization Plan
 - A. Startup begins when the fuel valves open and natural gas is supplied to the combustion turbines
 - B. Startup ends when either of the following conditions is met:
 - I. The NO_x water injection pump is operational, the dilution air temperature is greater than 600°F, the stack inlet temperature reaches 570°F, the ammonia block valve has opened, and ammonia is being injected into the SCR and the unit has reached an output of ten (10) gross MW; or
 - II. The unit has been in startup for two (2) hours.
 - C. Unit shutdown begins when the unit load or output is reduced below ten (10) gross MW with the intent of removing the unit from service.
 - D. Shutdown ends at the cessation of fuel input to the turbine combustor.
 - E. Periods of startup or shutdown shall not exceed two (2) hours per combustion turbine per day.
 - F. Turbine output (turbine load) shall be monitored and recorded on an hourly basis with an electrical meter.
- m. Tesoro Refining and Marketing Company, LLC Marathon Refinery: Salt Lake City Refinery
 - i. NO_x Emissions to the atmosphere from the indicated emission points shall not exceed the following rates and concentrations.

Emission Points

Emission Rate (lb/MMBtu)

- | | |
|-----------------------------|----------------|
| A. Crude Unit Furnace H-101 | 0.054 lb/MMBtu |
| B. UFU Furnace F-1 | 0.065 lb/MMBtu |
- ii. Initial NO_x stack testing has been performed for the Crude Unit Furnace H-101 and UFU Furnace F-1 and shall be conducted at least once within a three (3) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
 - iii. In lieu of the stack testing requirements listed above, any unit equipped with a CEMs shall determine compliance with the emission limits by the CEMs. For units equipped with CEMs, compliance shall be determined on a 30-day rolling average. The CEMs shall operate as outlined in IX.H.11.f.
 - iv. Emissions to the atmosphere from the cogeneration turbines with heat recovery steam generation CG1 and CG2 shall not exceed the following concentration.

A. Pollutant	ppmdv (15% O ₂ dry)
NO _x	32

 - B. Initial NO_x stack testing has been performed and shall be conducted at least once within a two (2) year period from the date of the last stack test. Stack testing shall be performed as outlined in IX.H.11.e.
 - C. 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.
 - D. In lieu of the stack testing requirements listed above, any unit equipped with a CEMs shall determine compliance with the emission limits by the CEMs. For units equipped with CEMs, compliance shall be determined on a 30-day rolling average. The CEMs shall operate as outlined in IX.H.11.f.
 - v. Cogeneration Unit Startup / Shutdown / Minimum Power Load Emission Minimization Plan
 - A. Startup and shutdown events shall not exceed 614 hours per 12-month rolling period per turbine.
 - B. Cumulative minimum power load operations shall not exceed 421 hours per 12- month rolling period per turbine.
 - C. Startup begins when the fuel valves open and natural gas or fuel gas is supplied to the combustion turbines.
 - D. Startup ends when the following conditions are met:

- I. The gas temperature is at least 575 °F, and the unit has reached an output of 50% operating load.
 - E. Shutdown begins when the unit load or output is reduced below 50% operating load with the intent of removing the unit from service.
 - F. Shutdown ends at the cessation of fuel input to the turbine combustor.
 - G. Minimum Power Load begins when the turbine generator is less than 50% operating load and the heat recovery steam generation unit is no longer supplemental fired, with the intent to continue operation of the turbine generator at minimum power make.
 - H. Minimum Power Load ends when the turbine generator is greater than 50% operating load.
 - I. Turbine output (turbine load) shall be monitored and recorded on an hourly basis with an electrical meter.
- vi. SO₂ emissions from the SRU/TGTU/TGI shall be limited to:
 - A. 1.68 tons per day (tpd) for up to 21 days per rolling 12-month period, and
 - B. 0.69 tpd for the remainder of the rolling 12-month period.
 - C. Daily sulfur dioxide emissions from the SRU/TGI/TGTU shall be determined by multiplying the SO₂ concentration in the flue gas by the mass flow of the flue gas. The sulfur dioxide concentration in the flue gas shall be determined by CEM as outlined in IX.H.11.f
 - vii. No later than January 1, 2019, the owner/operator shall install the following to control emissions from the listed equipment:

Emission Unit	Control Equipment
FCCU / CO Boiler	Wet Gas Scrubber, LoTOx
Furnace F-1	Ultra Low NO _x Burners
Tanks	Tank Degassing Controls
North and South Flares	Flare Gas Recovery
Furnace H-101	Ultra Low NO _x Burners
Truck loading rack	Vapor recovery unit
Sulfur recovery unit	Tail Gas Treatment Unit
Existing API separator	Floating roof (single seal)

- n. The Procter & Gamble Paper Products Company
 - i. Emissions to the atmosphere at all times from the indicated emission points shall

not exceed the following rates:

Source: Paper Making Boilers (Each)

Pollutant	Oxygen Ref.	lb/hr
NOx	3%	3.3
PM2.5 (Filterable and Condensables)	3%	0.9

Source: Paper Machine Process Stack

Pollutant	Oxygen Ref.	lb/hr
NOX	3%	13.50
PM2.5 (Filterable and Condensables)	3%	17.95

Source: Utility Boilers (Each)

Pollutant	Oxygen Ref.	lb/hr	A.Compliance with the above emission limits shall be determined by stack test as
NOX	3%	1.8	
PM2.5 (Filterable and Condensables)	3%	0.74	

outlined in Section IX Part H.11.e of this SIP.

B. Subsequent to initial compliance testing, stack testing is required at a minimum of once every three years.

ii. Boiler Startup/Shutdown Emissions Minimization Plan

A. Startup begins when natural gas is supplied to the Boiler(s) with the intent of combusting the fuel to generate steam. Startup conditions end within thirty (30) minutes of natural gas being supplied to the boilers(s).

B. Shutdown begins with the initiation of the stop sequence of the boiler until the cessation of natural gas flow to the boiler.

iii. Paper Machine Startup/Shutdown Emissions Minimization Plan

A. Startup begins when natural gas is supplied to the dryer combustion equipment with the intent of combusting the fuel to heat the air to a desired temperature for the paper machine. Startup conditions end within thirty (30) minutes of natural gas being supplied to the dryer combustion equipment.

- B. Shutdown begins with the diversion of the hot air to the dryer startup stack and then the cessation of natural gas flow to the dryer combustion equipment. Shutdown conditions end within thirty (30) minutes of hot air being diverted to the dryer startup stack.

o. Utah Municipal Power Association: West Valley Power Plant.

- i. Total emissions of NO_x from all five (5) catalytic-controlled turbines combined shall be no greater than 1050 lb of NO_x on a daily basis. For purposes of this subpart, a "day" is defined as a period of 24-hours commencing at midnight and ending at the following midnight.
- ii. Emissions of NO_x shall not exceed 5 ppmdv (@ 15% O₂, dry) on a 30-day rolling average.
- iii. Total emissions of NO_x from all five (5) catalytic-controlled turbines shall include the sum of all periods in the day including periods of startup, shutdown, and maintenance.
- iv. The NO_x emission rate (lb/hr) shall be determined by CEM. The CEM shall operate as outlined in IX.H.11.f.

p. University of Utah: University of Utah Facilities

- i. Emissions to the atmosphere from the listed emission points in Building 303 LCHWTP shall not exceed the following concentrations:

Emissions Point	Pollutant	ppmdv (3% O ₂ dry)
BoilerA#4*		
.B	NO _x	187
Boiler1s)#6 & 7		
.C.B	NO _x	9
Boiler2)#9*		
.C	NO _x	9
Turbin3e)		
.D	NO _x	9
Turbin4e) and WHRU		
Duct burner	NO _x	15

*By December 31, 2019, Boiler #4 will be decommissioned, and Boiler #9 will be installed and operational.

- ii. Stack testing to show compliance with the emissions limitations of Condition i above shall be performed as outlined in IX.H.11.e and as specified below:

Emissions Point	Pollutant	Initial Test	Test Frequency
Boiler #4*			
.B	NOx	*	#
Boilers #6 & 7			
.C	NOx	*	#
Boiler #9*			
.C	NOx	2020	#
Turbine			
.C	NOx	*	#
Turbine and WHRU Duct Burner	NOx	*	#

Initial test already performed

* Initial tests have been performed and the next method test using EPA approved test methods shall be performed within 3 years of the last stack test. Initial compliance testing for Boiler #9 is required. The initial test date shall be performed within 60 days after achieving the maximum heat input capacity production rate at which the affected facility will be operated and in no case later than 180 days after the initial startup of a new emission source.

A compliance test shall be performed at least once every three years from the date of the last compliance test that demonstrated compliance with the emission limit(s). Compliance testing shall be performed using EPA approved test methods acceptable to the Director. The Director shall be notified, in accordance with all applicable rules, of any compliance test that is to be performed.

- iii. Boiler #4 in the LCHWTP shall be decommissioned and replaced by Boiler #9 by December 31, 2019.
- iv. By the end of the third quarter of calendar year 2019, Boilers #1, #3, and #4 in the UCHWTP shall be limited to a natural gas usage of 530 MMscf per calendar year.
- v. The HSC Transformation Project boilers shall be installed and operational by the end of the third quarter of calendar year 2019. The new HSC Transformation Project boilers shall be equipped with low NOx burners rated at 30 ppmvd at 3% O2 or less.

- vi. Records shall be kept on site which indicate the date, and time of startup and shutdown.
- q. Hill Air Force Base
 - i. Painting and De-painting Operations
 - A. VOC emissions from painting and de-painting operations shall not exceed 0.58 tons per day (tpd).
 - I. No later than the 28th of each month, a rolling 30-day VOC emission average shall be calculated for the previous month.
 - ii. Boilers
 - A. The combined NOx emissions for all boilers (except those less than 5 MMBtu/hr) shall not exceed 95 lb/hr. This limit shall not apply during periods of curtailment.
 - I. No later than the 28th of each month, the NOx lb/hr emission total shall be calculated for the previous month.
 - B. No later than December 31, 2024, no boiler shall be operating on base with the capacity over 30 MMBtu/hr and with a manufacture date older than January 1, 1989.

H.13 Source-Specific Emission Limitations in Provo – UT PM_{2.5} Nonattainment Area

a. [Brigham Young University: Main Campus]

i. All central heating plant units shall operate on natural gas from November 1 to February 28 each season beginning in the winter season of 2013-2014. Fuel oil may be used as backup fuel during periods of natural gas curtailment. The sulfur content of the fuel oil shall not exceed 0.0015 % by weight. BYU must maintain a fuel specification certification document from the fuel supplier with the sulfur content guarantee. Alternatively, sulfur content may be verified through testing completed by BYU or the fuel supplier using ASTM Method D-4294-10 or EPA approved equivalent acceptable to the Director.

ii. Emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

Emission Point	Pollutant	ppm (7% O ₂ dry)	lb/hr
A. Unit #1	NO _x	95 36 9.55	5.44
B. Unit #4	NO _x	127 36 38.5	19.2
C. Unit #6	NO _x	127 36 38.5	19.2

* Unit #1 NO_x limit is 95 ppm (9.55 lb/hr) until it operates for more than 300 hours during a rolling 12-month period, then the limit will be 36 ppm (5.44 lb/hr). The NO_x limit for units

#4 and #6 is 127 ppm (38.5 lb/hr) and starting on December 31, 2018, the limit will then be 36 ppm (19.2 lb/hr).

Emission Point	Pollutant	ppm (7% O ₂ dry)	lb/hr
D. Unit #2	NO _x	331	37.4
	SO ₂	597	56.0
E. Unit #3	NO _x	331	37.4
	SO ₂	597	56.0
F. Unit #5	NO _x	331	74.8
	SO ₂	597	112.0

iii. Stack testing to show compliance with the above emission limitations shall be performed as follows:

EMISSION POINT	POLLUTANT	INITIAL TEST	TEST FREQUENCY
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A. Unit #1	NO _x	&	every year*
B. Unit #2	NO _x	#	every year*
C. Unit #3	NO _x	#	every year*
D. Unit #4	NO _x	#	every year*
E. Unit #5	NO _x	#	every year*
F. Unit #6	NO _x	#	every year*

& If Unit #1 is operated for more than 100 hours per rolling 12-month period, the stack test shall be performed within 60 days of exceeding 100 hours of operations. Unit #1 shall only be operated as a back-up boiler to Units #4 and #6 and shall not be operated more than 300 hours per rolling 12-month period. If Unit #1 operates more than 300 hours per rolling 12-month period, then low NO_x burners with Flue Gas Recirculation shall be installed and tested within 18 months of exceeding 300 hours of operation.

The test shall be performed at least every 3 years based on the date of the last stack test. Units #4 and #6 shall be retested by March 1, 2018.

* A compliance test shall be performed at least once every three years from the date of the last compliance test that demonstrated compliance with the emission limit(s). Compliance testing shall be performed using EPA approved test methods acceptable to the Director. The Director shall be notified, in accordance with all applicable rules, of any compliance test that is to be performed. Beginning January 2018, annual screening with a portable monitor must be conducted in those years that a compliance test is not performed. Screening with a portable monitor shall be performed in accordance with the portable monitor manufacturer's specifications. If screening with a portable monitor indicates a potential exceedance of the concentration limit, a compliance test must be performed within 90 days of that screening. Records shall be kept on site which indicate the date, time, and results of each screening and demonstrate that the portable monitor was operated in accordance with manufacturer's specifications.

iv. Central Heating Plant Coal Fired Boilers

Records shall be kept on site which indicate the date, and time of startup and shutdown.

A. The sulfur content of any coal or any mixture of coals burned shall not exceed either of the following:

1. 0.54 pounds of sulfur per million BTU heat input as determined by ASTM Method D-4239-85, or EPA approved equivalent acceptable to the Director.

II. 0.60% by weight as determined by ASTM Method D-4239-85, or EPA-approved equivalent acceptable to the Director.

For the sulfur content of coal, Brigham Young University shall either:

III. Determine the weight percent sulfur and the fuel heating value by submitting a coal sample to a laboratory, acceptable to the Director, on no less than a monthly basis; or

IV. For each delivery of coal, inspect the fuel sulfur content expressed as weight % determined by the vendor using methods of the ASTM; or

V. For each delivery of coal, inspect documentation provided by the vendor that indirectly demonstrates compliance with this provision.

v. Central Heating Plant Boilers

A. Records shall be kept on site which indicate the date, and time of startup and shutdown.

b. Geneva Nitrogen Inc.: Geneva Nitrogen Plant

i. Prill Tower:

PM₁₀ emissions (filterable and condensable) shall not exceed 0.236 ton/day
PM_{2.5} emissions (filterable and condensable) shall not exceed 0.196 ton/day

A day is defined as from midnight to the following midnight.

ii. Testing

A. Stack testing shall be performed as specified below:

I. Frequency: Emissions shall be tested every three years. The test shall be performed as soon as possible and in no case later than December 31, 2017.

B. The daily and rolling 12-month mass emissions shall be calculated by multiplying the most recent stack test results by the appropriate hours of operation for each day and for each rolling 12-month period.

iii. Montecatini Plant:

NO_x emissions shall not exceed 30.8 lb/hr

iv. Weatherly Plant:

NO_x emissions shall not exceed 18.4 lb/hr

v. Testing:

~~A. Stack testing for NO_x shall be performed as specified below:~~

~~I. Stack testing to show compliance with the NO_x emission limitations shall be performed as specified below:~~

~~1. Testing and Frequency. Emissions shall be tested every three years using an EPA approved test method.~~

~~II. NO_x concentration (ppmdv) shall be used as an indicator to provide a reasonable assurance of compliance with the NO_x emission limitation as specified below:~~

~~1. Measurement Approach: NO_x concentration (ppmdv) shall be determined by using a continuous NO_x monitoring system.~~

~~2. Performance Criteria:~~

~~a. QA/QC Practices and Criteria: The continuous monitoring system shall be operated, calibrated, and maintained in accordance with manufacture's recommendations. Zero and span drift tests shall be conducted on a daily basis.~~

~~III. The EPA approved method test for the Montecatini Plant shall be performed as soon as possible and in no case later than December 31, 2017, and the test for the Weatherly Plant shall be performed as soon as possible and in no case later than December 31, 2018.~~

~~vi. Start up/Shut down~~

~~A. Startup / Shutdown Limitations:~~

~~I. Planned shut down and start up events shall not exceed 50 hours per acid plant (Montecatini or Weatherly) per 12 month rolling period.~~

~~II. Total startup and shutdown events shall not exceed four hours per acid plant in any one calendar day.]~~

c. McWane Ductile – Utah

i. Emissions of VOC from the finishing paint line shall not exceed 1 ton/day.

A. Compliance with the above conditions shall be demonstrated as follows: VOC emissions at the finishing paint line shall be determined by asphalt paint consumption. Asphalt paint consumption shall be monitored by liquid level monitoring sensors on the finishing paint line bulk tanks.

- B. For purposes of this section a day is defined as a period of 24-hours commencing at midnight and ending at the following midnight.
- ii. The Annealing Oven furnaces are limited to ~~[63.29]~~76.5 MMBtu/hr.
- iii. Emissions from the desulfurization and ductile treatment system shall be routed through the operating baghouse prior to be emitted into the atmosphere.
- iv. Emissions from the Special Lining Shotblast operations shall be routed through the operating baghouse prior to being emitted into the atmosphere.
- d. PacifiCorp Energy: Lake Side Power Plant
 - i. Block #1 Catalytic-controlled Turbine/HRSG Stacks:
 - A. Emissions of NO_x shall not exceed 14.9 lb/hr on a 3-hr average basis
 - B. Compliance with the above conditions shall be demonstrated as follows:
 - I.NO_x monitoring shall be through use of a CEM as outlined in IX.H.11.f
 - ii. Block #2 Catalytic-controlled Turbine/HRSG Stacks:
 - A. Emissions of NO_x shall not exceed 18.1 lb/hr on a 3-hr average basis
 - B. Compliance with the above conditions shall be demonstrated as follows:
 - I.NO_x monitoring shall be through use of a CEM as outlined in IX.H.11.f
 - iii. Startup / Shutdown Limitations:
 - A. Block #1:
 - I.Startup and shutdown events shall not exceed 613.5 hours per turbine per 12- month rolling period.
 - II. Total startup and shutdown events shall not exceed 14 hours per turbine in any one calendar day.
 - III. Cumulative short-term transient load excursions shall not exceed 160 hours per 12-month rolling period.
 - IV. During periods of transient load conditions, NO_x emissions from the Block #1 Catalytic-controlled Turbine/HRSG Stacks shall not exceed 25 ppmvd at 15% O₂.

B. Block #2:

- I. Startup and shutdown events shall not exceed 553.6 hours per turbine per 12- month rolling period.
- II. Total startup and shutdown events shall not exceed 8 hours per turbine in any one calendar day.
- III. Cumulative short-term transient load excursions shall not exceed 160 hours per 12-month rolling period.
- IV. During periods of transient load conditions, NO_x emissions from the Block #2 Catalytic-controlled Turbine/HRSG Stacks shall not exceed 25 ppmvd at 15% O₂.

C. Definitions:

- I. Startup is defined as the period beginning with turbine initial firing until the unit meets the lb/hr emission limits listed in IX.H.13.d.i and ii above.
- II. Shutdown is defined as the period beginning with the initiation of turbine shutdown sequence and ending with the cessation of firing of the gas turbine engine.
- III. Transient load conditions are those periods, not to exceed four consecutive 15-minute periods, when the 15-minute average NO_x concentration exceeds 2.0 ppmv dry @

15% O₂. Transient load conditions consist of the following:

1. Initiation/shutdown of combustion turbine inlet air-cooling.
2. Rapid combustion turbine load changes.
3. Initiation/shutdown of HRSG duct burners.
4. Provision of Ancillary Services and Automatic Generation Control.

IV. For purposes of this subsection a “day” is defined as a period of 24-hours commencing at midnight and ending at the following midnight.

e. ~~Payson City Corporation: Payson City Power~~

i. ~~Emissions of NO_x shall be no greater than 1.54 ton per day for all engines combined.~~

ii. ~~Compliance with the emission limitation shall be determined by summing the emissions from all the engines. Emission from each engine shall be calculated from the following equation:~~

~~Emissions (tons/day) = (Power production in kW hrs/day) x (Emission~~

factor in grams/kW-hr) x (1 lb/453.59 g) x (1 ton/2000 lbs)

A. The NO_x emission factor for each engine shall be derived from the most recent stack test.

Stack tests shall be performed in accordance with IX.H.11.e. Each engine shall be tested at least every three years from the previous test.

B. NO_x emissions shall be calculated on a daily basis.

C. A day is equivalent to the time period from midnight to the following midnight.

D. The number of kilowatt hours generated by each engine shall be recorded on a daily basis with an electrical meter.

iii. All engines shall be catalytic controlled as outlined in IX.H.11.h.

f. Provo City Power: Power Plant

i. NO_x emissions from the operation of all engines at the plant shall not exceed 2.45 tons per day.

ii. Compliance with the emission limitation shall be determined by summing the emissions from all the engines. Emission from each engine shall be calculated from the following equation:

Emissions (tons/day) = (Power production in kW-hrs/day) x (Emission factor in grams/kW-hr) x (1 lb/453.59 g) x (1 ton/2000 lbs)

A. The NO_x emission factor for each engine shall be derived from the most recent stack test. Stack tests shall be performed in accordance with IX.H.11.e. Each engine shall be tested every 8,760 hours of operation or at least every three years from the previous test, whichever occurs first.

B. NO_x emissions shall be calculated on a daily basis.

C. A day is equivalent to the time period from midnight to the following midnight.

D. The number of kilowatt hours generated by each engine shall be recorded on a daily basis with an electrical meter.

iii. All engines shall be catalytic controlled as outlined in IX.H.11.h.

g. Springville City Corporation: Whitehead Power Plant

i. NO_x emissions from the operation of all engines at the plant shall not exceed 1.68 tons per day.

ii. Internal combustion engine emissions shall be calculated from the operating data

recorded by the CEM as outlined in IX.H.11.f. A day is equivalent to the time period from midnight to the following midnight. Emissions of NO_x shall be calculated for each individual engine by the following equation:

$$D = (X * K) / 453.6$$

Where:

X = grams/kW-hr rate for each generator (recorded by CEM)

K = total kW-hr generated by the generator each day (recorded by output meter)

D = daily output of pollutant in lbs/day

iii. All engines shall be catalytic-controlled as outlined in IX.H.11.h.]

APPENDIX A: Amendment to Section R307-110-17 Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits; Amend Utah State Implementation Plan, Section IX.H.12 and Section IX.H.13: Emission Limitations and Operating Practices Responses to Public Comment

On April 1, 2026, the Utah Air Quality Board proposed the incorporation of amendments to the Salt Lake City Nonattainment Area (SLC NAA) Serious PM_{2.5} State Implementation Plan (SIP) by reference into Section R307-110-17 for a 30-day public comment period. This public comment period began on April 15, 2026, and ended on May 15, 2026. The staff at the Utah Division of Air Quality (UDAQ, the Division) hosted a public hearing where stakeholders could provide oral comments on May 12, 2026. During this time, one individual provided oral comments, and submitted corresponding written comments. Overall, staff at the Division received submissions of written comments from one commenter.

The Division has reviewed and evaluated all comments received during this 30-day public comment period in accordance with the Utah Administrative Rulemaking Act, Utah Code § 63G-3-301(11)(b). All written comments received by the Division have been posted on its webpage where they can be viewed in their entirety. Below is a summation of comments and UDAQ responses:

Comments received from the general public:

- 1) **Public Comment 1:** “While Utah may technically have been redesignated to attainment for the 2006 PM_{2.5} standard, the lived reality for residents along the Wasatch Front tells a very different story. Every year, our communities continue to endure dangerous winter inversions, unhealthy PM_{2.5} spikes, and elevated NO_x pollution. Families still breathe air that increases the risk of asthma attacks, cardiovascular disease, chronic respiratory illness, lung cancer, and premature death. Attainment on paper does not mean the danger has passed. It does not mean our children’s lungs are protected. And it certainly does not mean Utah should begin rolling back protections. The proposed increase in NO_x emission limits for industrial sources, including refineries and large combustion equipment, moves Utah in the wrong direction.”

UDAQ Response: The Division greatly appreciates the individual who participated in the public comment process by submitting comments and appreciates the concern the individual has for residents along the Wasatch Front. The Division follows all state and federal requirements and regulations to ensure air quality is protected in the state of Utah and actively works to find solutions to our ongoing air quality challenges. The Division regularly updates the State Implementation Plans based on federal guidance and requirements and follows Environmental Protection Agency (EPA) requirements under Section 110(l) of the Clean Air Act (CAA) to provide an analysis showing that the increase in emissions will not interfere with attainment.

- 2) **Public Comment 2:** “This proposal comes as Utah is simultaneously pursuing large scale AI data center development in northern Utah, including projects near Box Elder County and within the Great Salt Lake watershed...Utah cannot responsibly prepare for industrial projects of this magnitude while simultaneously weakening NO_x and PM_{2.5} protections. These decisions are interconnected, and their cumulative consequences must be treated as such.”

UDAQ Response: The Division appreciates this comment. Future industrial projects are required to go through the Division’s permitting process, which at that time will evaluate best available emissions control technology, determine all federal and state requirements that apply, and evaluate that emissions of any regulated air pollutant will not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQS) through air pollutant dispersion modeling. The Division ensures that emissions are limited to rates that prevent significant deterioration of local air quality. The current SIP amendments were evaluated under a Section 110(l)

Demonstration to determine impact on the surrounding airshed based on existing sources and expected growth.

- 3)
Public Comment 3: “And this conversation cannot stop with industrial emissions alone. We must also consider the Great Salt Lake. I am deeply concerned about HB60 and similar measures that may be framed primarily as water administration policy, but which carry profound implications for air quality and public health...The health of the Great Salt Lake, our regional air quality, ecosystem stability, snowpack resilience, and public health are inseparable...Treating them separately ignores the reality that policy decisions in one area can create cascading harm in another...For this reason, Utah’s air quality protections should not be weakened without fully accounting for future industrial expansion, AI related energy demand, Great Salt Lake decline, dust exposure, and climate related pressures.”

UDAQ Response: The Division appreciates this comment and recognizes the significance of the interconnectedness of air quality and the condition of the Great Salt Lake. The Division works closely with a wide array of stakeholders in understanding the role and condition of the Great Salt Lake. For this SIP amendment specifically, the increase of emission limitations on two emission units at two sources was evaluated in the Section 110(l) Demonstration to determine its impact on the surrounding airshed, and all existing sources of NO_x and expected growth were included in that projection in the SLC, UT PM_{2.5} Maintenance Plan.

- 4)
Public Comment 4: “The Division argues that these proposed increases would have a negligible impact under the Clean Air Act’s Section 110(l) anti-backsliding demonstration. But Utah residents deserve more than narrow compliance calculations. We deserve transparent, cumulative health impact analysis that reflects real world conditions. Utahns are already living with chronic pollution burdens. The SIP should account not only for today’s emissions, but for foreseeable future growth, industrialization, water policy consequences, and regional environmental change before existing protections are weakened”

UDAQ Response: The Division appreciates this comment and request. For this SIP amendment, the increase of emission limitations was compared to the PM_{2.5} Maintenance Plan 2035 NO_x Emissions Projections. These emission projections account for a maintenance area’s future growth as it relates to air quality. The increase in emissions in the Salt Lake area results in an approximately 0.03% increase in total NO_x projections in the full airshed in 2035, while the increase in emissions in the Provo area results in an approximately 0.01% increase in total NO_x projections in the full airshed in 2035. Based on current-day monitored values and the small increase in the expected NO_x projections, the Division expects that the area will continue to maintain the standards.

- 5)
Public Comment 5: “I am also concerned about the removal of several facilities from SIP requirements simply because they are classified as minor sources. Minor on paper does not always mean minor in reality. Multiple smaller sources across a growing corridor can combine into significant cumulative public health burdens. Reducing oversight because a source falls below an individual threshold risks ignoring the larger pollution picture Utahns experience.”

UDAQ Response: The Division appreciates this comment and concern. Removing the minor sources from the SIP requirements will not reduce oversight of these sources. These sources will continue to be regulated through the Division’s Minor Source Permitting Section and will be subject to existing permit conditions and requirements, regular compliance evaluations, and submittal of regular inventories.

1 6) **Public Comment 6:** “I did want to specifically raise concerns about the proposed amendment to
2 R307-110-17 that would increase the allowable NO_x emission limit for the HF Sinclair Woods
3 Cross refinery reformer furnace from 1.25 lb/MMBtu to 1.55 lb/MMBtu. The 2006 standard is
4 also nearly 20 years old, and research since then has shown health impacts from PM_{2.5} and NO_x
5 exposure even at lower concentrations, including asthma, cardiovascular disease, cancer risk,
6 pregnancy complications, and premature death. Communities near the refinery — including
7 Woods Cross, North Salt Lake, Rose Park, and other neighborhoods along the northern Wasatch
8 Front — already face high exposure to refinery emissions, freight traffic, diesel pollution, and
9 winter inversions. Increasing allowable emissions by roughly 24% raises legitimate concerns
10 about cumulative impacts, especially when we go into our winter inversion season. It does,
11 however, beg the question on why Utah has not asked to move this facility out of the Salt Lake
12 City Valley as our population size and urban development continued to grow...Apologies, my
13 original email had the emissions limitations increase percentage listed incorrectly. An increase
14 from 0.15 to 0.20 lb/MMBtu is an increase of about 33.3% for the HF Sinclair Woods Cross
15 Refinery's Reformer Reheat Furnace 6H1.”
16

17 **UDAQ Response:** The Division appreciates this comment and request. The increase in one
18 emission limit at the HF Sinclair Woods Cross Refinery will result in an overall increase in the
19 airshed of approximately 0.03% NO_x emissions. The Division appreciates the concern for
20 neighborhood impacts of this increase and follows current standards set by the EPA. The current
21 PM_{2.5} Primary and Secondary NAAQS of 35 µg/m³ (98th percentile, averaged over 3 years) takes
22 into consideration public health protection and public welfare protection. When comparing the
23 monitored values around the state with the overall projected increase in the airshed, the Division
24 expects that the area will continue to maintain the existing standards set by the EPA.



**Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
Utah State Implementation Plan Section IX.H.12 and IX.H.13**

Introduction

Section 110(l) of the Clean Air Act (CAA) states that the Environmental Protection Agency (EPA) cannot approve a state implementation plan (SIP) revision if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of the CAA. When revisions to these rules are made, the CAA requires that an analysis is made to verify that the rule will not be relaxed in a way that would be impermissible under Section 110(l).

Additionally, EPA has given draft guidance that “For example, for certain pollutants such as CO, the Agency could determine that an increase in emissions is not interfering with attainment if ambient levels in an attainment area were well below the National Ambient Air Quality Standard (NAAQS) and not trending upward. Under these conditions, the Agency could conclude that ambient levels are so low that a slight emissions increase is not likely to cause a violation of the NAAQS, hence noninterference has been demonstrated (p.12).”¹ The proposed amendments impact such a small number of point source emissions within the PM_{2.5} Maintenance Area that it is not likely to cause a violation.

This demonstration is being submitted for public comment because the Utah Division of Air Quality (UDAQ) is proposing amendments to Utah SIP Section IX.H.12 and Section IX.H.13 to increase one emission limitation for HF Sinclair to align with emissions the source is already emitting, and to increase one limitation for McWane Ductile in Section IX.H.13.

Proposed Amendment Summary

1. HF Sinclair has requested to increase the NO_x emission limitation in Section IX.H.12(g)(i)(A) for the Reformer Reheat Furnace 6H1 from 0.15 lb/MMBtu to 0.20 lb/MMBtu. During the original drafting period of Section IX.H.12(g)(i)(A), HF Sinclair proposed the existing limit on the Reformer Reheat Furnace 6H1 based on best engineering judgement. The Reformer Reheat Furnace 6H1 was constructed in 1957, and due to its age, the source did not have existing vendor emission performance guarantees nor testing data. The unit is currently not equipped with a stack testing port, and has until December 31st, 2028, to install one. Since the final adoption of Section IX.H.12(g)(i)(A), HF Sinclair has conducted engineering NO_x emissions testing using EPA Reference Test Method 19 and determined that the original limit of 0.15 lb/MMBtu is not achievable. Taking into consideration the age of the unit, the new stack testing data, and the original uncertainty the limit was proposed with, UDAQ has agreed with HF Sinclair’s assessment that the limit on the Reformer Reheat Furnace 6H1 should be increased to 0.20 lb/MMBtu.

¹ U.S. Environmental Protection Agency. (2005). *Demonstrating noninterference under Section 110(l) of the Clean Air Act when revising a State Implementation Plan* (Draft).



Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
Utah State Implementation Plan Section IX.H.12 and IX.H.13

Air Quality Impact Analysis: This change results in an additional potential to emit of 11.98 tons per year of NO_x emissions for HF Sinclair, or an additional 0.03 tons per day. Due to this small increase, this change will have no noticeable impact on air quality, air quality modeling for the SIP, or attainment of the PM_{2.5} NAAQS.

When compared to the Attainment Inventory included in the SLC, UT PM_{2.5} Maintenance Plan, UDAQ is confident that the addition of 0.03 tons per day of NO_x emissions will not cause or contribute to a new violation of the NAAQS. Tables 1 through 3 show comparisons to the SLC, UT PM_{2.5} Maintenance Plan emissions inventories. Table 4 shows PM_{2.5} Air Quality Monitor Data Design Values (DV) from 2020 to 2025, showing the 24-hour 98th percentile PM_{2.5} DV averaged over three years. Table 4 indicates that the DV at all monitors within the Maintenance Area, when compared to the 24-hour primary and secondary PM_{2.5} standard of 35 µg/m³ (98th percentile, averaged over three years), have been consistently lower than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment and are predicted to continue to maintain the NAAQS. The levels are low enough that a slight emissions increase is not likely to cause a violation of the NAAQS within the Maintenance Area.

Table 1: Approved Emissions Inventory in SLC, UT PM_{2.5} Maintenance Plan

Approved Emissions Inventory in SLC, UT PM _{2.5} Maintenance Plan		
Emissions (tons/day)	Sector	NO _x
2035	Area Sources	8.69
	Mobile Sources	18.91
	Nonroad Sources	13.32
	Point Sources	22.62
	Total	63.54

Table 2: Revised Emissions Inventory in SLC, UT PM_{2.5} Maintenance Plan

Revised Emissions Inventory in SLC, UT PM _{2.5} Maintenance Plan		
Emissions (tons/day)	Sector	NO _x
2035	Area Sources	8.69
	Mobile Sources	18.91
	Nonroad Sources	13.32
	Point Sources	22.65
	Total	63.57



**Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
Utah State Implementation Plan Section IX.H.12 and IX.H.13**

Table 3: Percentage of Total PM_{2.5} Maintenance Plan 2035 NO_x Emissions Projection

Version	NO _x (tons/day)	Full Airshed NO _x Total (tons/day)	Percentage of Total 2035 NO _x Emissions Projection (%)
Approved Emissions	22.62	63.54	35.60%
Revised Emissions	22.65	63.57	35.63%

Table 4: PM_{2.5} values compared to the 24-hour PM_{2.5} NAAQS between 2020-2025

Design Values for the 2006 24-hour PM _{2.5} NAAQS (µg/m ³) – Based on Annual 98 th Percentile							
Monitor Name, County	Monitor ID	2020 24-hr DV (µg/m ³)	2021 24-hr DV (µg/m ³)	2022 24-hr DV (µg/m ³)	2023 24-hr DV (µg/m ³)	2024 24-hr DV (µg/m ³)	2025 24-hr DV (µg/m ³)
Brigham City, Box Elder	49-003-0005	N/A	N/A	N/A	25	23	19
Smithfield, Cache	49-005-0007	31	32	31	34	31	25
Bountiful, Davis	49-011-0004	24	27	29	29	26	22
Copperview, Salt Lake	49-035-2005	31	32	33	32	31	28
Hawthorne, Salt Lake	49-035-3006	26	30	30	30	27	24
Rose Park, Salt Lake	49-035-3010	28	32	33	33	29	24
Herriman, Salt Lake	49-035-3013	24	27	29	28	23	19
Lake Park, Salt Lake	49-035-3014	N/A	N/A	30	28	29	25
Tech Center, Salt Lake	49-035-3015	24	30	33	33	28	25
N. Inland Port, Salt Lake	49-035-3016	N/A	43	36	32	26	21
Red Butte, Salt Lake	49-035-3018	N/A	N/A	N/A	N/A	19	16
Near Road, Salt Lake	49-035-4002	32	34	35	34	32	28
Erda, Tooele	49-045-0004	26	27	28	27	23	20
Lindon, Utah	49-049-4001	25	26	26	24	22	20
Spanish Fork, Utah	49-049-5010	31	24	27	25	22	20
Harrisville, Weber	49-057-1003	25	27	17	26	22	19



Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
Utah State Implementation Plan Section IX.H.12 and IX.H.13

This increase is also unlikely to impact the Northern Wasatch Front's 2015 Ozone Moderate Nonattainment Area (NAA) SIP. Table 5 below demonstrates the 2023 Total Projected Nonattainment Emission Inventory compared to the revised numbers and compares them as a percentage of the total 2023 NO_x Emissions Projection. Table 6 shows Ozone Air Quality Monitor Data from 2020 to 2025, showing the annual fourth-highest daily maximum 8-hour Ozone DV averaged over three years. Table 6 indicates that the design value at the majority of the monitors within an Ozone Nonattainment Area, when compared to the 8-hour primary and secondary Ozone standard of 0.070 ppm (annual fourth-highest daily maximum, averaged over 3 years), have been consistently higher than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment.

This increase is also unlikely to impact the attainment status of any other NAAQS, including Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO₂), PM₁₀, and Sulfur Dioxide (SO₂). This amendment will not result in emissions of CO, Pb, PM₁₀, or SO₂, and thus will not impact the attainment status of these pollutants. The entirety of the State of Utah is in attainment for the primary 1-hour NO₂ standard of 100 ppb (annual 98th percentile, averaged over three years). Table 7 shows NO₂ Air Quality Monitor Data from 2020 to 2025, showing the annual 98th percentile 1-hour NO₂ DV averaged over three years. As Table 7 indicates, the design values for all monitors that monitor NO₂ have been consistently lower than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment.

Table 5: Percentage of Total Ozone Moderate SIP 2023 NO_x Emissions Projection

Version	NO _x (tons/day)	Full Airshed NO _x Total (tons/day)	Percentage of Total 2035 NO _x Emissions Projection (%)
Approved Emissions	22.00	87.07	25.27%
Revised Emissions	22.03	87.10	25.29%

Table 6: Ozone values compared to the 8-hour Ozone NAAQS between 2020-2025.

Design Values for the 2015 8-hour Ozone NAAQS (ppm) – Based on Annual 4 th Highest Daily Maximum							
Monitor Name, County	Monitor ID	2020 8-hr DV (ppm)	2021 8-hr DV (ppm)	2022 8-hr DV (ppm)	2023 8-hr DV (ppm)	2024 8-hr DV (ppm)	2025 8-hr DV (ppm)
Brigham City, Box Elder	49-003-0005	N/A	N/A	N/A	N/A	0.071	0.069
Smithfield, Cache	49-005-0007	0.066	0.066	0.066	0.066	0.066	0.066
Bountiful, Davis	49-011-0004	0.077	0.078	0.079	0.076	0.075	0.075
Roosevelt, Duchesne	49-013-0002	0.073	0.074	0.067	0.077	0.076	0.076



**Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
Utah State Implementation Plan Section IX.H.12 and IX.H.13**

Copperview, Salt Lake	49-035-2005	0.073	0.076	0.078	0.077	0.075	0.074
Hawthorne, Salt Lake	49-035-3006	0.074	0.076	0.076	0.075	0.073	0.073
Rose Park, Salt Lake	49-035-3010	0.077	0.076	0.078	0.074	0.074	0.073
Herriman, Salt Lake	49-035-3013	0.073	0.076	0.077	0.075	0.069	0.069
Lake Park, Salt Lake	49-035-3014	0.062	0.072	0.072	0.075	0.074	0.074
Tech Center, Salt Lake	49-035-3015	0.053	0.063	0.076	0.073	0.071	0.070
N. Inland Port, Salt Lake	49-035-3016	N/A	0.084	0.079	0.077	0.074	0.071
Red Butte, Salt Lake	49-035-3018	N/A	N/A	N/A	N/A	0.081	0.076
Near Road, Salt Lake	49-035-4002	0.068	0.073	0.075	0.077	0.074	0.073
Erda, Tooele	49-045-0004	0.069	0.070	0.071	0.071	0.070	0.068
Vernal, Uintah County	49-047-1004	0.065	0.065	0.064	0.069	0.069	0.071
Lindon, Utah	49-049-4001	0.069	0.069	0.073	0.072	0.071	0.068
Spanish Fork, Utah	49-049-5010	0.069	0.070	0.070	0.069	0.067	0.067
Harrisville, Weber	49-057-1003	0.071	0.071	0.074	0.072	0.071	0.070

Table 7: NO₂ values compared to the 1-hour NO₂ NAAQS between 2020-2025.

Design Values for the 2010 1-hour NO ₂ NAAQS (ppb) – Based on Annual 98th Percentile							
Monitor Name, County	Monitor ID	2020 1-hr DV (ppb)	2021 1-hr DV (ppb)	2022 1-hr DV (ppb)	2023 1-hr DV (ppb)	2024 1-hr DV (ppb)	2025 1-hr DV (ppb)
Brigham City, Box Elder	49-003-0005	N/A	N/A	N/A	N/A	33	34
Smithfield, Cache	49-005-0007	31	32	32	34	33	31
Bountiful, Davis	49-011-0004	45	46	47	49	47	45
Copperview, Salt Lake	49-035-2005	50	49	48	47	46	46
Hawthorne, Salt Lake	49-035-3006	52	52	50	48	47	44
Rose Park, Salt Lake	49-035-3010	48	49	50	49	48	46
Herriman, Salt Lake	49-035-3013	36	34	33	35	35	32
Lake Park, Salt Lake	49-035-3014	47	43	43	42	42	43



**Clean Air Act 110(l) Demonstration
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Salt Lake							
Tech Center, Salt Lake	49-035-3015	51	51	51	52	51	49
N. Inland Port, Salt Lake	49-035-3016	N/A	41	42	41	40	39
Red Butte, Salt Lake	49-035-3018	N/A	N/A	N/A	N/A	38	34
Near Road, Salt Lake	49-035-4002	51	49	49	52	50	48
Erda, Tooele	49-045-0004	23	21	20	20	20	18
Lindon, Utah	49-049-4001	42	42	42	41	39	40
Spanish Fork, Utah	49-049-5010	40	38	37	37	38	38
Harrisville, Weber	49-057-1003	43	44	43	42	40	39

As part of this analysis, the UDAQ has also completed an emission inventory “roll-forward” analysis to demonstrate continued maintenance. This analysis compares the 2017 total PM_{2.5} baseline emissions and 2017 baseline design value PM_{2.5} concentration to the expected 2035 projected total PM_{2.5} emissions, including the 0.03 tons/day increase from the increase in HF Sinclair’s emission limitation, to determine a projected 2035 PM_{2.5} concentration. The 2017 baseline design values, 2017 total PM_{2.5} baseline emissions, and 2035 projected total PM_{2.5} emissions were taken from the SLC, UT PM_{2.5} Maintenance Plan. This “roll-forward” analysis uses the following equation to determine a project 2035 PM_{2.5} concentration:

$$\frac{PM_{2.5} \text{ 2017 Baseline}}{PM_{2.5} \text{ 2017 Total Emissions}} = \frac{PM_{2.5} \text{ 2035 Projection}}{PM_{2.5} \text{ 2035 Total Emissions}}$$

Where:

PM_{2.5} 2017 Baseline = baseline PM_{2.5} concentration for each affected monitor

PM_{2.5} 2017 Total Emissions = 218.21 tons/day baseline PM_{2.5} total emissions

PM_{2.5} 2035 Projection = to be calculated (unknown)

PM_{2.5} 2035 Total Emissions = 181.09 tons/day projected PM_{2.5} total emissions (includes 181.06 tons/day from SLC, UT PM_{2.5} Maintenance Plan and 0.03 tons/day from increase)

Using the above equation and information from the SLC, UT PM_{2.5} Maintenance Plan, Table 8 below shows the projected PM_{2.5} concentrations at each monitor in the maintenance area in 2035. As can be seen in Table 8 below, when compared to the 24-hour primary and secondary PM_{2.5} standard of 35 µg/m³ (98th percentile, averaged over three years), the UDAQ shows that projected concentrations at all monitors are below the PM_{2.5} standard; therefore, maintenance of the standard is demonstrated.



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Table 8: Roll-Forward Projections for the SLC, UT PM_{2.5} Maintenance Plan

Monitor Location	2017 Baseline Design Value (µg/m ³)	2035 Roll-Forward Projection (µg/m ³)
Brigham City	32.4	26.89
Bountiful	28.5	23.65
Hawthorne	33.4	27.72
Rose Park	34.9	28.96
Ogden	30.2	25.06
Erda	25.5	21.16

2. McWane Ductile has requested to reconstruct their existing annealing oven. A new oven is needed to improve balanced heating of the products, add the ability to control the target temperature of the oven, and improve the thermal penetration in the oven. These changes will increase the existing heat input capacity from 63.29 MMBtu/hr to 76.5 MMBtu/hr.

Air Quality Impact Analysis: This change results in the following additional potential to emit for McWane Ductile:

- 0.43 tons per year of PM_{2.5} emissions
- 0.03 tons per year of SO₂ emissions
- 2.84 tons per year of NO_x emissions
- 0.31 tons per year of VOC emissions
- Or an additional total of all direct and precursor PM_{2.5} emissions of approximately 0.01 tons per day

Due to this small increase, this change will have no noticeable impact on air quality, air quality modeling for the SIP, or attainment of the PM_{2.5} NAAQS.

When compared to the Attainment Inventory included in the Provo, UT PM_{2.5} Maintenance Plan, UDAQ is confident that the addition of 0.01 tons per day of total direct and precursor PM_{2.5} emissions will not cause or contribute to a new violation of the NAAQS. The increases in each precursor pollutant category in tons/day are negligible, and less than 0.01 tons per day for each pollutant.

Table 9 shows comparisons to the Provo, UT PM_{2.5} Maintenance Plan emissions inventories. Table 4 above shows PM_{2.5} Air Quality Monitor Data from 2020 to 2025, showing 24-hour Annual 98th percentile PM_{2.5} design value (DV) based on a three-year average. Table 4 indicates that the design values at all monitors within the Maintenance



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Area, when compared to the 24-hour primary and secondary PM_{2.5} standard of 35 µg/m³ (98th percentile, averaged over three years), have been consistently lower than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment and are predicted to continue to maintain the NAAQS. The levels are low enough that a slight emissions increase is not likely to cause a violation of the NAAQS.

This increase is also unlikely to impact the attainment status of any other NAAQS, including CO, Pb, NO₂, PM₁₀, Ozone, and SO₂. This amendment will not result in emissions of CO or Pb and minimal emissions of PM₁₀ and thus will not impact the attainment status of these pollutants. This increase is unlikely to impact the Southern Wasatch Front's 2015 Ozone Marginal Nonattainment Area. Table 6 above shows Ozone Air Quality Monitor Data from 2020 to 2025, showing the annual fourth-highest daily maximum 8-hour Ozone DV averaged over three years. Table 6 indicates that the design value at the majority of the monitors within an Ozone Nonattainment Area, when compared to the 8-hour primary and secondary Ozone standard of 0.070 ppm (annual fourth-highest daily maximum, averaged over 3 years), have been consistently higher than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment.

The entirety of the State of Utah is in attainment for the primary 1-hour NO₂ standard of 100 ppb (annual 98th percentile, averaged over three years). Table 7 above shows NO₂ Air Quality Monitor Data from 2020 to 2025, showing the annual 98th percentile 1-hour NO₂ DV averaged over three years. As Table 7 indicates, the design values for all monitors that monitor NO₂ have been consistently lower than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment.

The entirety of the State of Utah is also in attainment for the primary 1-hour SO₂ standard of 75 ppb (annual 99th percentile, averaged over three years). Table 10 below shows SO₂ Air Quality Monitor Data from 2020 to 2025, showing the annual 99th percentile 1-hour SO₂ DV averaged over three years. As Table 10 indicates, the design values for all monitors that monitor SO₂ have been consistently lower than the NAAQS over the last six years. The monitors are not likely to be influenced by this minor amendment.

Table 9: Percentage of Total PM_{2.5} (Direct and Precursor Emissions) Maintenance Plan 2035 NO_x Emissions Projection

Version	Total PM _{2.5} (tons/day)	Full Airshed PM _{2.5} Total (tons/day)	Percentage of Total 2035 PM _{2.5} Emissions Projection (%)
Approved Emissions	1.95	48.56	4.02%
Revised Emissions	1.96	48.57	4.03%



**Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
Utah State Implementation Plan Section IX.H.12 and IX.H.13**

Table 10: SO₂ values compared to the 1-hour SO₂ NAAQS between 2020-2025

Design Values for the 2010 1-hour SO ₂ NAAQS (ppb) – Based on Annual 99th Percentile							
Monitor Name, County	Monitor ID	2020 1-hr DV (ppb)	2021 1-hr DV (ppb)	2022 1-hr DV (ppb)	2023 1-hr DV (ppb)	2024 1-hr DV (ppb)	2025 1-hr DV (ppb)
Copperview, Salt Lake	49-035-2005	3	3	3	3	3	3
Tech Center, Salt Lake	49-035-3015	4	4	4	5	5	5
Hawthorne, Salt Lake	49-035-3006	4	4	4	4	4	4
Rose Park, Salt Lake	49-035-3010	5	6	6	6	5	4

As part of this analysis, the UDAQ has also completed an emission inventory “roll-forward” analysis to demonstrate continued maintenance. This analysis compares the 2017 total PM_{2.5} baseline emissions and 2017 baseline design value PM_{2.5} concentration to the expected 2035 projected total PM_{2.5} emissions, including the 0.01 tons/day increase from the increase in McWane Ductile’s emission limitation, to determine a projected 2035 PM_{2.5} concentration. The 2017 baseline design values, 2017 total PM_{2.5} baseline emissions, and 2035 projected total PM_{2.5} emissions were taken from the Provo, UT PM_{2.5} Maintenance Plan. This “roll-forward” analysis uses the following equation to determine a project 2035 PM_{2.5} concentration:

$$\frac{PM_{2.5} \text{ 2017 Baseline}}{PM_{2.5} \text{ 2017 Total Emissions}} = \frac{PM_{2.5} \text{ 2035 Projection}}{PM_{2.5} \text{ 2035 Total Emissions}}$$

Where:

PM_{2.5} 2017 Baseline = baseline PM_{2.5} concentration for each affected monitor

PM_{2.5} 2017 Total Emissions = 59.82 tons/day baseline PM_{2.5} total emissions

PM_{2.5} 2035 Projection = to be calculated (unknown)

PM_{2.5} 2035 Total Emissions = 48.57 tons/day projected PM_{2.5} total emissions (includes 48.56 tons/day from Provo, UT PM_{2.5} Maintenance Plan and 0.01 tons/day from increase)

Using the above equation and information from the Provo, UT PM_{2.5} Maintenance Plan, Table 11 below shows the projected PM_{2.5} concentrations at each monitor in the maintenance area in 2035. As can be seen in Table 11 below, when compared to the 24-hour primary and secondary PM_{2.5} standard of 35 µg/m³ (98th percentile, averaged over three years), the UDAQ shows that projected concentrations at all monitors are below the PM_{2.5} standard; therefore, maintenance of the standard is demonstrated.



Clean Air Act 110(l) Demonstration
Air Quality Impact of Amendments to
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Table 11: Roll-Forward Projections for the Provo, UT PM_{2.5} Maintenance Plan

Monitor Location	2017 Baseline Design Value (µg/m ³)	2035 Roll-Forward Projection (µg/m ³)
Lindon	31.1	25.25
Spanish Fork	28.4	23.06

Conclusion: The proposed amendments to Part IX.H.12 and IX.H.13 will not impact the area's ability to maintain the NAAQS for any pollutant. The UDAQ is confident that increasing HF Sinclair's Reformer Reheat Furnace 6H1 emission limit and increasing the maximum heat input capacity for McWane Ductile's Annealing Oven will not result in a noticeable increase in overall emissions in the Salt Lake and Utah County airsheds. For the PM_{2.5} Maintenance Area, the monitors in the Maintenance Area are not likely to be influenced by the minor amendments and are predicted to continue to maintain the PM_{2.5} NAAQS. The UDAQ conducted "roll-forward" analyses for both Maintenance Areas to demonstrate that the projected 2035 PM_{2.5} concentrations are below the PM_{2.5} NAAQS, and to demonstrate continued maintenance. The ambient levels are so low that a slight emissions increase is not likely to cause a violation of the NAAQS, hence noninterference has been demonstrated. For the Ozone Nonattainment Areas, the monitors in the Nonattainment Areas are not likely to be influenced by the minor amendment and are predicted to continue to be consistently higher than the Ozone NAAQS. The ambient levels are so low that the slight emissions increase will not cause a new violation of the Ozone NAAQS, hence noninterference has been demonstrated.

ITEM 7



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of Environmental Quality

Tim Davis
Commissioner

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-026-26

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

THROUGH: Jazmine Lopez, Rules Coordinator

FROM: Leonard Wright, Air Toxics Lead-based Paint and Asbestos Manager; and
Tamie Call, Environmental Scientist

DATE: June 17, 2026

SUBJECT: PROPOSE FOR PUBLIC COMMENT: Amend Rules R307-840. Lead-Based Paint Program Purpose, Applicability, and Definitions; R307-841. Residential Property and Child-Occupied Facility Renovation; and R307-842. Lead-Based Paint Activities.

The Environmental Protection Agency (EPA) finalized stronger requirements for how to identify and clean up lead-based paint hazards in pre-1978 homes and childcare facilities. The final rule reduced the level of lead in dust that is considered hazardous from 10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$) on floors and 100 $\mu\text{g}/\text{ft}^2$ on windowsills to any reportable level as analyzed by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program. This change is being made because there is no level of lead in blood that is safe for children. The rule also lowered the amount of lead that can remain in dust on floors, windowsills, and window troughs after a lead paint abatement occurs from:

10 $\mu\text{g}/\text{ft}^2$ to 5 $\mu\text{g}/\text{ft}^2$ for floors,
100 $\mu\text{g}/\text{ft}^2$ to 40 $\mu\text{g}/\text{ft}^2$ for windowsills, and
400 $\mu\text{g}/\text{ft}^2$ to 100 $\mu\text{g}/\text{ft}^2$ for window troughs.

EPA also finalized changes to adopt the terms dust-lead reportable levels (DLRL) and dust-lead action levels (DLAL) as well as several other amendments, including revisions to both the definition of target housing and the definition of abatement.

To maintain EPA authorization, EPA requires states to meet all requirements imposed by these rulemakings no later than two years after the effective date of the new requirements. The amendments to rules R307-840, Lead-Based Paint Program Purpose, Applicability, and Definitions; R307-841, Residential Property and Child-Occupied Facility Renovation; and R307-842, Lead-Based Paint Activities, incorporate these changes into the air quality rules and allow our state program to maintain EPA-authorization.

Effective January 13, 2025, the EPA lowered the dust-lead action level from 10 $\mu\text{g}/\text{ft}^2$ to 5 $\mu\text{g}/\text{ft}^2$ for floors, from 100 $\mu\text{g}/\text{ft}^2$ to 40 $\mu\text{g}/\text{ft}^2$ for windowsills, and from 400 $\mu\text{g}/\text{ft}^2$ to 100 $\mu\text{g}/\text{ft}^2$ for window troughs. These changes require stricter cleaning practices by certified lead firms, decrease the likelihood of childhood lead exposure, and are mandated by the EPA.

Changes are also being made to bring rules R307-840, R307-841, and R307-842 into compliance with the Utah Rulewriting Manual and Executive Order 2021-12.

Recommendation: Staff recommend the Board approve the amendments to rules R307-840, R307-841, and R307-842, for a 30-day public comment period.

State of Utah
Administrative Rule Analysis
Revised May 2026

NOTICE OF SUBSTANTIVE CHANGE

TYPE OF FILING: Amendment	Filing ID: OFFICE USE ONLY
Rule or section number:	R307-840
Date of previous publication (only for CPRs):	

1. Agency Information

Title catchline:	Environmental Quality, Air Quality
Building:	Multi-Agency State Office Building
Street address:	195 N 1950 W
City, state:	Salt Lake City, UT
Mailing address:	PO Box 144820
City, state and zip:	Salt Lake City, UT 84114-4820

2. Contact Persons

Name:	Phone:	Email:
Tamie Call	385-227-1055	twcall@utah.gov
Leonard Wright	801-707-8032	leonardwright@utah.gov
Jazmine Lopez	801-536-4050	jazminelopez@utah.gov

Please address questions regarding information on this notice to the persons listed above.

3. General Information

A. Rule or section catchline:
R307-840. Lead-Based Paint Program Purpose, Applicability, and Definitions.
B. Purpose of the new rule or reason for the change:
The Division of Air Quality is updating Rule R307-840 to align with the new federal definitions and standards found in 40 Code of Federal Regulations (CFR) Part 745.
C. Summary of the new rule or change:
In October 2024, the Environmental Protection Agency (EPA) finalized stronger requirements for how to identify and clean up lead-based paint hazards in pre-1978 homes and childcare facilities. The final rule reduced the level of lead in dust that is considered hazardous from ten micrograms per square foot (µg/ft²) on floors and 100 µg/ft² on window sills to any reportable level as analyzed by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program. This change is being made because there is no level of lead in blood that is safe for children. The rule also lowered the amount of lead that can remain in dust on floors, window sills, and window troughs after a lead paint abatement occurs from: • 10 µg/ft² to 5 µg/ft² for floors, • 100 µg/ft² to 40 µg/ft² for window sills, and • 400 µg/ft² to 100 µg/ft² for window troughs. EPA also finalized changes to adopt the terms "Dust-lead Reportable Levels" and "Dust-lead Action Levels" as well as several other amendments, including revisions to both the definition of "Target Housing" and the definition of "Abatement" which now provides that EPA will recommend an abatement when dust-lead loadings are at or above the dust-lead action levels. The state of Utah is required to adopt the federal standards by 2027. Changes are also being made to bring Rule R307-840 into compliance with the Utah Rulewriting Manual and Executive Order 2021-12.

4. Legislative Action Information

A. Are any changes in this filing because of state legislative action?	Changes are not because of legislative action.
B. If yes, any bill number and session:	

5. Fiscal Information

Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

This is a standard change to lower the allowable amount of lead after abatement projects to meet the new EPA dust-lead action levels. This change should have no effect on the state budget.

B. Local governments:

This is a standard change to lower the allowable amount of lead after abatement projects to meet the new EPA dust-lead action levels. This change should have no effect on local government budgets.

C. Small businesses ("small business" means a business employing 1-49 persons):

Small Businesses will have to be more thorough with post-abatement cleaning in order to meet new dust-lead clearance levels. This could lead to slightly longer cleanup times and the increase of cleaning product use. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons):

A certified lead-based paint renovator company may incur additional costs at a job site since the allowable levels of lead in dust has been decreased. This could lead to slightly longer cleanup times and the increase of cleaning product use. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

Incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (i.e., quantity of lead per unit of surface area) to below the action levels. In some instances, floors may have to be sealed, overlaid, or replaced, or window sills sealed or repainted. Additional costs may result from the retesting of lead dust levels. Because of the lower laboratory reporting limits necessary for testing lead dust levels under this rule, incremental laboratory test costs are likely to increase. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, and the amount of disturbed lead in the renovated area.

F. Compliance costs for affected persons:

Incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (i.e., quantity of lead per unit of surface area) to below the action levels. In some instances, floors may have to be sealed, overlaid, or replaced, or window sills sealed or repainted. Additional costs may result from the retesting of lead dust levels. Because of the lower laboratory reporting limits necessary for testing lead dust levels under this rule, incremental laboratory test costs are likely to increase. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

6. Regulatory Impact Summary Table

Enter the cost or savings in the relevant cell. If there is no cost or savings, enter, "\$0." If a cost or savings is inestimable, enter, "inestimable."

Fiscal Cost	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$	\$	\$	\$	\$
Local Governments	\$	\$	\$	\$	\$
Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Non-Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Other Persons	inestimable	inestimable	inestimable	inestimable	inestimable
Total Fiscal Cost	inestimable	inestimable	inestimable	inestimable	inestimable
Fiscal Benefits	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$	\$	\$	\$	\$
Local Governments	\$	\$	\$	\$	\$
Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Non-Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Other Persons	inestimable	inestimable	inestimable	inestimable	inestimable
Total Fiscal Benefits	inestimable	inestimable	inestimable	inestimable	inestimable
Net Fiscal Benefits	inestimable	inestimable	inestimable	inestimable	inestimable

7. Regulatory Impact Analysis Approval

The Commissioner of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

8. Family Impact Information

A. The agency has considered this rule's impact on family health, stability, and formation: ☒

B. Summary of reasonable alternatives or modifications:

9. Citation Information

Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-2-104(1)(i)	40 CFR 745	

10. Incorporation by Reference Information

Incorporation by Reference (if this rule incorporates more than two items by reference, please include additional tables):

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

B. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

11. Public Notice Information

The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:

08/14/2026

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.):

Date:	Time (hh:mm AM/PM):	Place (physical address or URL):
08/07/2026	09:00 AM - 10:00 AM	A public hearing is set for August 7, 2026. Further details may be found below. The hearing will be cancelled should no request for one be made by August 5, 2026, at 10 AM MT. The final status of the public hearing will be posted on August 5, 2026, after 10 AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule. https://deq.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment Interested Persons can participate in person or electronically, via the internet. In Person: MASOB 195 N. 1950 W. Salt Lake City, UT, 84116, First Floor, Air Quality Board Room Virtual Attendance: Time zone: America/Denver Google Meet joining info: Video call link: https://meet.google.com/suv-jfta-amz Or dial: (US) +1 570-399-3496 PIN: 962 498 585#

To the agency: If more than one hearing is planned to take place, continue to add rows.

12. Effective Date Information

This rule change MAY become effective on:

(NOTE: This is the date the agency anticipates making the filing effective. It is NOT the effective date)

10/07/2026

13. Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 63G-3-302, 63G-3-303, and 63G-3-402. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin* and delaying the first possible effective date.

Agency head or designee and title:	Bryce C. Bird, Director, Division of Air Quality	Date:	06/12/2026
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1 **R307. Environmental Quality, Air Quality.**

2 **R307-840. Lead-Based Paint Program Purpose, Applicability, and Definitions.**

3 **R307-840-1. Purpose and Applicability.**

4 (1) Rules R307-840, R307-841, and R307-842 establish procedures and requirements for the
5 accreditation of training programs for lead-based paint activities and renovations, procedures and
6 requirements for the certification of individuals and firms engaged in lead-based paint activities and
7 renovations, and work practice standards for performing such activities. [These rules] Rules R307-
8 840, R307-841, and R307-842 also require that, except as outlined in Subsection R307-840-1(2), all
9 lead-based paint activities and renovations, as defined in Rules R307-840, R307-841, and R307-842
10 [these rules], must be performed by certified individuals and firms.

11 (2) Rules R307-840, R307-841, and R307-842 apply to all individuals and firms who are
12 engaged in lead-based paint activities and renovations as defined in Section R307-840-2, except
13 persons who perform these activities within residential dwellings that they own, unless the residential
14 dwelling is occupied by a person [or persons] other than the owner or the owner's immediate family
15 while these activities are being performed, or if a child residing in the building has been identified as
16 having an elevated blood lead level.

17 (3) Rules R307-840, R307-841, and R307-842 identify lead-based paint hazards. The
18 standards for lead-based paint hazards apply to target housing and child-occupied facilities.

19 (4) Rules R307-840, R307-841, and R307-842 do not require the owner of the property or
20 properties subject to these rules to evaluate the property or properties for the presence of lead-based
21 paint hazards or take any action to control these conditions if one or more of them is identified.

22 (5) While Rules R307-840, R307-841, and R307-842 establish specific requirements for
23 performing lead-based paint activities and renovations should they be undertaken, these rules do not
24 require that the owner or occupant undertake any particular lead-based paint activity or renovation.

25 (6) Individuals or firms wishing to deviate from the certification, notification, work practice,
26 or other requirements of Rules R307-840, R307-841, [and] or R307-842 may do so only after
27 requesting and obtaining written approval from the director.

28
29 **R307-840-2. Definitions.**

30 The following definitions apply to Rules R307-840, R307-841, and R307-842, in addition to
31 the definitions found in Section R307-101-2.

32 "Abatement" means any measure or set of measures designed to permanently eliminate lead-
33 based paint hazards, in the case of dust-lead hazards to below the action levels. Abatement includes,
34 but is not limited to:

35 (1) The removal of paint and dust, in the case of dust-lead hazards to below the action levels,
36 the permanent enclosure or encapsulation of lead-based paint, the replacement of painted surfaces or
37 fixtures, or the removal or permanent covering of soil, if [when] lead-based paint hazards are present
38 in such paint, dust, or soil; and

39 (2) All preparation, cleanup, disposal, and post-abatement clearance testing activities
40 associated with such measures.

41 (3) Specifically, abatement includes, but is not limited to:

42 (a) Projects for which there is a written contract or other documentation, which provides that
43 an individual or firm will be conducting activities in or to a residential dwelling or child-occupied
44 facility that:

45 (i) Shall result in the permanent elimination of lead-based paint hazards, in the case of dust-
46 lead hazards to below the action levels; or

47 (ii) Are designed to permanently eliminate lead-based paint hazards, in the case of dust-lead
48 hazards to below the action levels, and are described in Subsections R307-840-2(1) and R307-840-
49 2(2). [paragraphs (1) and (2) of this definition.]

50 (b) Projects resulting in the permanent elimination of lead-based paint hazards, in the case of
51 dust-lead hazards to below the action levels, conducted by firms or individuals certified in accordance

1 with Section R307-842-2, unless such projects are covered by Subsection R307-840-2(4)~~[paragraph~~
2 ~~(4) of this definition]~~;

3 (c) Projects resulting in the permanent elimination of lead-based paint hazards, in the case of
4 dust-lead hazards to below the action levels, conducted by firms or individuals who, through their
5 company name or promotional literature, represent, advertise, or hold themselves out to be in the
6 business of performing lead-based paint activities as identified and defined by ~~[this section]~~ Section
7 R307-840-2, unless such projects are covered by ~~[paragraph (4) of this definition]~~ Subsection R307-
8 840-2(4); or

9 (d) Projects resulting in the permanent elimination of lead-based paint hazards, in the case of
10 dust-lead hazards to below the action levels, that are conducted in response to ~~[S]~~ state of Utah or local
11 abatement orders.

12 (4) Abatement does not include renovation, remodeling, landscaping or other activities, if
13 [when] such activities are not designed to permanently eliminate lead-based paint hazards, in the case
14 of dust-lead hazards to below the action levels, but, instead, are designed to repair, restore, or remodel
15 a given structure or dwelling, even though these activities may incidentally result in a reduction or
16 elimination of lead-based paint hazards. Furthermore, abatement does not include interim controls,
17 operations and maintenance activities, or other measures and activities designed to temporarily, but not
18 permanently, reduce lead-based paint hazards, in the case of dust-lead hazards to below the action
19 levels.

20 "Accredited Training Program" means a training program that has been accredited by the
21 director pursuant to Section R307-842-1 to provide training for individuals engaged in lead-based
22 paint activities.

23 "Adequate Quality Control" means a plan or design which ensures the authenticity, integrity,
24 and accuracy of samples, including dust, soil, and paint chip or paint film samples. Adequate quality
25 control also includes provisions for representative sampling.

26 "Action Levels" are values that indicate the amount of lead in dust on a surface following
27 completion of an abatement activity. To complete abatement when dust sampling is required, values
28 below these levels must be achieved.

29 "Arithmetic Mean" means the algebraic sum of data values divided by the number of data
30 values such as [(e.g.,] the sum of the concentration of lead in several soil samples divided by the
31 number of samples~~)]~~.

32 "Business Day" means Monday through Friday [with the exception of federal and State of
33 Utah] including holidays.

34 "Certificate of Mailing" means Certificate of Mailing as defined by the United States Postal
35 Service.

36 "Certified Abatement Worker" means an individual who has been trained by an accredited
37 training program and certified by the director pursuant to Section R307-842-2 to perform abatements.

38 "Certified Dust Sampling Technician" means an individual who has been trained by an
39 accredited training program and certified by the director pursuant to Subsection R307-841-8(1) and
40 Section R307-842-2 to collect dust samples.

41 "Certified Firm" means a company, partnership, corporation, sole proprietorship or individual
42 doing business, association, or other business entity; a federal, state, tribal, or local government
43 agency; or a nonprofit organization that performs lead-based paint activities, renovations, or dust
44 sampling to which the director has issued a certificate of approval pursuant to Subsection R307-842-
45 2(5).

46 "Certified Inspector" means an individual who has been trained by an accredited training
47 program and certified by the director pursuant to Section R307-842-2 to conduct inspections. A
48 certified inspector also samples for the presence of lead in dust and soil for the purposes of abatement-
49 related [clearance] testing.

50 "Certified Project Designer" means an individual who has been trained by an accredited
51 training program and certified by the director pursuant to Section R307-842-2 to prepare abatement
52 project designs, occupant protection plans, and abatement reports.

1 "Certified Renovator" means an individual who has been trained by an accredited training
2 program and certified by the director pursuant to Subsection R307-841-8(1) and Section R307-842-2
3 to conduct renovations.

4 "Certified Risk Assessor" means an individual who has been trained by an accredited training
5 program and certified by the director pursuant to Section R307-842-2 to conduct risk assessments. A
6 risk assessor also samples for the presence of lead in dust and soil for the purposes of abatement-
7 related [clearance] testing.

8 "Certified Supervisor" means an individual who has been trained by an accredited training
9 program and certified by the director pursuant to Section R307-842-2 to supervise and conduct
10 abatements, and to prepare occupant protection plans and abatement reports.

11 "Chewable Surface" means an interior or exterior surface painted with lead-based paint that a
12 young child can mouth or chew. A chewable surface is the same as an "accessible surface" as defined
13 in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that can not be dented by the bite of
14 a young child are not considered chewable.

15 "Child-Occupied Facility" means a building, or portion of a building, constructed prior to
16 1978, visited regularly by the same child, under six [6] years of age, on at least two different days
17 within any week, [4] [Sunday through Saturday period], provided [that] each day's visit lasts at least
18 three [3] hours and the combined weekly visits last at least six [6] hours, and the combined annual
19 visits last at least 60 hours. Child-occupied facilities may include, but are not limited to, day care
20 centers, preschools, and kindergarten classrooms. Child-occupied facilities may be located in target
21 housing or in public or commercial buildings. With respect to common areas in public or commercial
22 buildings that contain child-occupied facilities, the child-occupied facility encompasses only those
23 common areas that are routinely used by children under age six [6], such as restrooms and cafeterias.
24 Common areas that children under age six [6] only pass through, such as hallways, stairways, and
25 garages are not included. In addition, with respect to exteriors of public or commercial buildings that
26 contain child-occupied facilities, the child-occupied facility encompasses only the exterior sides of the
27 building that are immediately adjacent to the child-occupied facility or the common areas routinely
28 used by children under age six [6].

29 "Cleaning Verification Card" means a card developed and distributed, or otherwise approved,
30 by EPA for the purpose of determining, through comparison of wet and dry disposable cleaning cloths
31 with the card, whether post-renovation cleaning has been properly completed.

32 "Clearance Levels" are values that indicate the amount of lead in dust on a surface following
33 completion of an abatement activity. To achieve clearance when dust sampling is required, values
34 below these levels must be achieved.

35 "Common Area" means a portion of a building that is generally accessible to all occupants.
36 Such an area may include, but is not limited to, hallways, stairways, laundry and recreational rooms,
37 playgrounds, community centers, garages, and boundary fences.

38 "Common Area Group" means a group of common areas that are similar in design,
39 construction, and function. Common area groups include, but are not limited to hallways, stairways,
40 and laundry rooms.

41 "Component or Building Component" means specific design or structural elements or fixtures
42 of a building or residential dwelling that are distinguished from each other by form, function, and
43 location. These include, but are not limited to, interior components such as ceilings, crown molding,
44 walls, chair rails, doors, door trim, floors, fireplaces, radiators and other heating units, shelves, shelf
45 supports, stair treads, stair risers, stair stringers, newel posts, railing caps, balustrades, windows and
46 trim, [4] [including sashes, window heads, jambs, sills or stools and troughs], built in cabinets,
47 columns, beams, bathroom vanities, counter tops, and air conditioners, and exterior components such
48 as painted roofing, chimneys, flashing, gutters and downspouts, ceilings, soffits, fascias, rake boards,
49 cornerboards, bulkheads, doors and door trim, fences, floors, joists, lattice work, railings and railing
50 caps, siding, handrails, stair risers and treads, stair stringers, columns, balustrades, window sills or
51 stools and troughs, casings, sashes and wells, and air conditioners.

1 "Concentration" means the relative content of a specific substance contained within a larger
2 mass, such as the amount of lead [4] in micrograms per gram or parts per million by weight [5] in a
3 sample of dust or soil.

4 "Containment" means a process to protect workers and the environment by controlling
5 exposures to the lead-contaminated dust and debris created during an abatement.

6 "Course Agenda" means an outline of the key topics to be covered during a training course,
7 including the time allotted to teach each topic.

8 "Course Test" means an evaluation of the overall effectiveness of the training which shall test
9 the trainees' knowledge and retention of the topics covered during the course.

10 "Course Test Blue Print" means written documentation identifying the proportion of course
11 test questions devoted to each major topic in the course curriculum.

12 "Deteriorated Paint" means any interior or exterior paint or other coating that is flaking,
13 peeling, chipping, chalking, or cracking, or any other paint or coating located on an interior or exterior
14 surface or fixture that is otherwise damaged or separated from the substrate.

15 "Discipline" means one of the specific types or categories of lead-based paint activities
16 identified in [this rule] Rule R307-840 for which individuals may receive training from accredited
17 programs and become certified by the director. Disciplines include Abatement Worker, Dust
18 Sampling Technician, Inspector, Project Designer, Renovator, Risk Assessor, and Supervisor.

19 "Distinct Painting History" means the application history, as indicated by its visual appearance
20 or a record of application, over time, of paint or other surface coatings to a component or room.

21 "Documented Methodologies" are methods or protocols used to sample for the presence of
22 lead in paint, dust, and soil.

23 "Dripline" means the area within three [3] feet surrounding the perimeter of the building.

24 "Dry Disposable Cleaning Cloth" means a commercially available dry, electrostatically
25 charged, white disposable cloth designed to be used for cleaning hard surfaces such as uncarpeted
26 floors or counter tops.

27 "Dust-lead action level (DLAL)" are the values that indicate the amount of lead in dust on a
28 surface following completion of an abatement activity. To complete abatement when dust sampling is
29 required, values below these levels must be achieved. EPA previously used the term "clearance levels"
30 to refer to these levels. Five micrograms per square foot ($\mu\text{g}/\text{ft}^2$) for floors, 40 $\mu\text{g}/\text{ft}^2$ for window
31 sills, or 100 $\mu\text{g}/\text{ft}^2$ for troughs.

32 "Dust-lead hazard" means:

33 (1) Before January 12, 2026, a dust-lead hazard is surface dust in a residential dwelling or
34 child-occupied facility that contains a mass-per-area concentration of lead equal to or exceeding 10
35 $\mu\text{g}/\text{ft}^2$ for floors or 100 $\mu\text{g}/\text{ft}^2$ for interior window sills based on wipe samples.

36 (2) On or after January 12, 2026, a dust-lead hazard is surface dust in a residential dwelling or
37 child-occupied facility that contains a mass-per-area concentration of any reportable level of lead for
38 floors or for interior window sills based on wipe samples analyzed by an NLLAP-recognized
39 laboratory.

40 "Dust-lead reportable level (DLRL)" means the lowest analyte concentration or amount that
41 does not contain a "less than" qualifier and that is reported with confidence for a specific method by a
42 laboratory recognized by EPA under TSCA section 405(b).

43 "Elevated Blood Lead Level (EBL)" means an excessive absorption of lead that is a confirmed
44 concentration of lead in whole blood of ≥ 3.5 micrograms of lead per deciliter of whole blood ($\mu\text{g}/\text{dl}$)
45 for a single venous blood test or two capillary blood tests drawn within 12 weeks of each other.

46 "Emergency Renovation Operations" means renovation activities, such as operations
47 necessitated by non-routine failures of equipment, that were not planned but result from a sudden,
48 unexpected event that, if not immediately attended to, presents a safety or public health hazard, or
49 threatens equipment [and] or property with significant damage.

50 "Encapsulant" means a substance that forms a barrier between lead-based paint and the
51 environment using a liquid-applied coating, [4] with or without reinforcement materials, [5] or an
52 adhesively bonded covering material.

1 "Encapsulation" means the application of an encapsulant.

2 "Enclosure" means the use of rigid, durable construction materials that are mechanically

3 fastened to the substrate in order to act as a barrier between lead-based paint and the environment.

4 "EPA" means the United States Environmental Protection Agency.

5 "Friction Surface" means an interior or exterior surface that is subject to abrasion or friction,

6 including, but not limited to, certain window, floor, and stair surfaces.

7 "Guest Instructor" means an individual designated by the training program manager or

8 principal instructor to provide instruction specific to the lecture, hands-on activities, or work practice

9 components of a course.

10 "Hands-On Skills Assessment" means an evaluation which tests the trainees' ability to

11 satisfactorily perform the work practices and procedures identified in Subsection R307-842-1(4), as

12 well as any other skill taught in a training course.

13 "Hazardous Waste" means any waste as defined in 40 Code of Federal Regulations (CFR)

14 261.3.

15 "HEPA Vacuum" means a vacuum cleaner which has been designed with a high-efficiency

16 particulate air (HEPA) filter as the last filtration stage. A HEPA filter is a filter that is capable of

17 capturing particulates of 0.3 microns with 99.97% efficiency. The vacuum cleaner must be designed

18 so that all the air drawn into the machine is expelled through the HEPA filter with none of the air

19 leaking past it. HEPA vacuums must be operated and maintained in accordance with the

20 manufacturer's instructions.

21 "Housing for the Elderly" means retirement communities or similar types of housing reserved

22 for households composed of one or more persons 62 years of age or more at the time of initial

23 occupancy.

24 "HUD" means the United States Department of Housing and Urban Development.

25 "Impact Surface" means an interior or exterior surface that is subject to damage by repeated

26 sudden force such as certain parts of door frames, a door knob that knocks into a wall, or a door that

27 knocks against its door frame.

28 "Inspection" means a surface-by-surface investigation to determine the presence of lead-based

29 paint and the provision of a report explaining the results of the investigation.

30 "Interim Certification" means the status of an individual who has successfully completed the

31 appropriate training course in a discipline from an accredited training program, as defined by Section

32 R307-840-2 [this section], but has not yet received formal certification in that discipline from the

33 director pursuant to Section R307-842-2. Interim certification expires six [6] months after the

34 completion of the training course, and is equivalent to a certificate for the [6]six-month period.

35 "Interim Controls" means a set of measures designed to temporarily reduce human exposure or

36 likely exposure to lead-based paint hazards, including specialized cleaning, repairs, maintenance,

37 painting, temporary containment, ongoing monitoring of lead-based paint hazards or potential hazards,

38 and the establishment and operation of management and resident education programs.

39 "Interior Window Sill" means the portion of the horizontal window ledge that protrudes into

40 the interior of the room.

41 "Lead-Based Paint" means paint or other surface coatings that contain lead equal to or in

42 excess of 1.0 milligrams per square centimeter or more than 0.5% by weight.

43 "Lead-Based Paint Activities" means, in the case of target housing and child-occupied

44 facilities, inspection, risk assessment, and abatement.

45 "Lead-Based Paint Activities Courses" means initial and refresher training courses for a

46 [4]worker, supervisor, inspector, risk assessor, or project designer[5] provided by accredited training

47 programs.

48 "Lead-Based Paint Hazard" means, for the purposes of lead-based paint activities, any

49 condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, or lead-

50 contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact

51 surfaces that would result in adverse human health effects as identified by the Administrator of the

EPA pursuant to TSCA Section 403, and for the purposes of renovation, means hazardous lead-based paint, dust-lead hazard, or soil-lead hazard as identified in Section R307-840-2.

"Lead-Hazard Screen" means a limited risk assessment activity that involves limited paint and dust sampling as described in Subsection R307-842-3(3).

"Living Area" means any area of a residential dwelling used by one or more children under age six [6 and under], including, but not limited to, living rooms, kitchen areas, dens, play rooms, and children's bedrooms.

"Loading" means the quantity of a specific substance present per unit of surface area, such as the amount of lead in micrograms contained in the dust collected from a certain surface area divided by the surface area in square feet or square meters.

"Local Government" means a county, city, town, borough, parish, district, association, or other public body, [f]including an agency, which comprises [comprised of] two or more of the foregoing entities, [f]created under state law.

"Mid-Yard" means an area of a residential yard approximately midway between the dripline of a residential building and the nearest property boundary or between the driplines of a residential building and another building on the same property.

"Minor Repair and Maintenance Activities" are activities, including minor heating, ventilation, or air conditioning work, electrical work, and plumbing, that disrupt six [6] square feet or less of painted surface per room for interior activities or 20 square feet or less of painted surface for exterior activities where none of the work practices prohibited or restricted by Subsection R307-841-5(1)(c) are used and where the work does not involve window replacement or demolition of painted surface areas. When removing painted components, or portions of painted components, the entire surface area removed is the amount of painted surface disturbed. Jobs, other than emergency renovations, performed in the same room within the same 30 days must be considered the same job for the purpose of determining whether the job is a minor repair and maintenance activity.

"Multi-Family Dwelling" means a structure that contains more than one separate residential dwelling unit which is used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons.

"Multi-Family Housing" means a housing property consisting of more than four dwelling units.

"Nonprofit" means an entity which has demonstrated to any branch of the federal government or to a state, municipal, tribal or territorial government, that no part of its net earnings inure to the benefit of any private shareholder or individual.

"Owner" means any entity that has legal title to target housing, including, but not limited to individuals, partnerships, corporations, trusts, government agencies, housing agencies, Indian tribes, and nonprofit organizations, except where a mortgagee holds legal title to property serving as collateral for a mortgage loan, in which case the owner would be the mortgagor.

"Paint In Poor Condition" means more than ten [10] square feet of deteriorated paint on exterior components with large surface areas, or more than two [2] square feet of deteriorated paint on interior components with large surface areas such as [e.g.,] walls, ceilings, floors, or doors [f], or more than 10% of the total surface area of the component is deteriorated on interior or exterior components with small surface areas such as [f] window sills, baseboards, soffits, or trim [f].

"Paint-lead hazard" means any of the following:

(a) Any lead-based paint on a friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface, such as [e.g.,] the window sill or floor [f] are equal to or greater than the dust-lead [hazard] action levels identified in the definition of "Dust-lead [hazard] action level".

(b) Any damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component [f] such as a door knob that knocks into a wall or a door that knocks against its door frame [f].

(c) Any chewable lead-based painted surface on which there is evidence of teeth marks.

(d) Any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

"Painted surface" means a component surface covered in whole or in part with paint or other surface coatings.

"Pamphlet" means the EPA pamphlet titled "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools" developed under Section 406(a) of TSCA for use in complying with section 406(b) of TSCA. This includes reproductions of the pamphlet when copied in full and without revision or deletion of material from the pamphlet ~~[(c)]~~ except for the addition or revision of state or local sources of information ~~[(d)]~~.

"Permanently Covered Soil" means soil which has been separated from human contact by the placement of a barrier consisting of solid, relatively impermeable materials, such as pavement or concrete. Grass, mulch, and other landscaping materials are not considered permanent covering.

"Person" means any natural or judicial person including any individual, corporation, partnership, or association, any Indian tribe, state, or political subdivision thereof, any interstate body, and any department, agency, or instrumentality of the federal government.

"Play Area" means an area of frequent soil contact by children of less than ~~six~~ [6] years of age as indicated by, but not limited to, such factors including the presence of play equipment ~~such as~~ [(e.g.,)] sandboxes, swing sets, and sliding boards ~~[(d)]~~, toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

"Principal Instructor" means the individual who has the primary responsibility for organizing and teaching a particular course.

"Recognized Laboratory" means an environmental laboratory recognized by EPA pursuant to TSCA Section 405(b) as being capable of performing an analysis for lead compounds in paint, soil, and dust.

"Recognized Test Kit" means a commercially available kit recognized by EPA under 40 CFR 745.88 as being capable of allowing a user to determine the presence of lead at levels equal to or in excess of 1.0 milligrams per square centimeter, or more than 0.5% lead by weight, in a paint chip, paint powder, or painted surface.

"Reduction" means measures designed to reduce or eliminate human exposure to lead-based paint hazards through methods including interim controls and abatement.

"Renovation" means the modification of an existing structure, or portion thereof, that results in the disturbance of painted surfaces, unless that activity is performed as part of an abatement as defined by ~~Section~~ R307-840-2. The term renovation includes, but is not limited to, the removal, modification, or repair of painted surfaces or painted components including [(e.g.,)] modification of painted doors, surface restoration, window repair, surface preparation activity, ~~[(c)]~~ such as sanding, scraping, or other such activities that may generate paint dust ~~[(d)]~~, the removal of building components including [(e.g.,)] walls, ceilings, plumbing, ~~or~~ windows ~~[(d)]~~, weatherization projects including [(e.g.,)] cutting holes in painted surfaces to install blown-in insulation or to gain access to attics, planing thresholds to install weather-stripping ~~[(d)]~~, and interim controls that disturb painted surfaces. A renovation performed for the purpose of converting a building, or part of a building, into target housing or a child-occupied facility is a renovation under [this rule] Rule R307-840. The term renovation does not include minor repair and maintenance activities.

"Renovator" means an individual who either performs or directs workers who perform renovations.

"Residential Building" means a building containing one or more residential dwellings.

"Residential Dwelling" means (1) a detached single family dwelling unit, including attached structures such as porches and stoops; or (2) a single family dwelling unit in a structure that contains more than one separate residential dwelling unit, which is used or occupied, or intended to be used or occupied, in whole or in part, as the home or residence of one or more persons.

"Risk Assessment" means (1) an on-site investigation to determine the existence, nature, severity, and location of lead-based paint hazards, and (2) the provision of a report by the individual or

1 firm conducting the risk assessment, explaining the results of the investigation and options for
2 reducing lead-based paint hazards.

3 "Room" means a separate part of the inside of a building, such as a bedroom, living room,
4 dining room, kitchen, bathroom, laundry room, or utility room. To be considered a separate room, the
5 room must be separated from adjoining rooms by built-in walls or archways that extend at least **six [6]**
6 inches from an intersecting wall. Half walls or bookcases count as room separators if built-in.
7 Movable or collapsible partitions or partitions consisting solely of shelves or cabinets are not
8 considered built-in walls. A screened in porch that is used as a living area is a room.

9 "Soil Sample" means a sample collected in a representative location using ASTM E1727,
10 "Standard Practice for Field Collection of Soil Samples for Lead Determination by Atomic
11 Spectrometry Techniques," or equivalent method.

12 "Soil-lead hazard" means bare soil on residential real property or on the property of a child-
13 occupied facility that contains total lead equal to or exceeding 400 parts per million (ug/g) in a play
14 area or average 1,200 parts per million of bare soil in the rest of the yard based on soil samples.

15 "Start Date" means the first day of any lead-based paint activities training course or lead-based
16 paint abatement activity.

17 "Start Date Provided to the director" means the start date included in the original notification
18 or the most recent start date provided to the director in an updated notification.

19 "State" means any state of the United States, the District of Columbia, the Commonwealth of
20 Puerto Rico, the United States Virgin Islands, Guam, the Canal Zone, American Samoa, the Northern
21 Mariana Islands, or any other territory or possession of the United States.

22 "Target housing" means any housing constructed prior to 1978, except housing for the elderly
23 or persons with disabilities **or any zero-bedroom dwelling, [(unless any [one or more] child[ren] who**
24 **is less than [age] six [6] years of age [or under] resides or is expected to reside in such housing [for the**
25 **elderly or persons with disabilities) or any 0 bedroom dwelling].**

26 "Training curriculum" means an established set of course topics for instruction in an
27 accredited training program for a particular discipline designed to provide specialized knowledge and
28 skills.

29 "Training Hour" means at least 50 minutes of actual learning, including, but not limited to,
30 time devoted to lecture, learning activities, small group activities, demonstrations, evaluations, and
31 hands-on experience.

32 "TSCA" means the Toxic Substances Control Act, 15 U.S.C. 2601.

33 "Training Manager" means the individual responsible for administering a training program and
34 monitoring the performance of principal instructors and guest instructors.

35 "Training Provider" means any organization or entity accredited under **Section** R307-842-1 to
36 offer lead-based paint activities, renovator, or dust sampling technician courses.

37 "Vertical containment" means a vertical barrier consisting of plastic sheeting or other
38 impermeable material over scaffolding or a rigid frame, or an equivalent system of containing the
39 work area. Vertical containment is required for some exterior renovations but it may be used on any
40 renovation.

41 "Visual Inspection for ~~Clearance~~ Abatement-related Testing" means the visual examination of
42 a residential dwelling or a child-occupied facility following abatement to determine whether or not the
43 abatement has been successfully completed.

44 "Visual Inspection for Risk Assessment" means the visual examination of a residential
45 dwelling or a child-occupied facility to determine the existence of deteriorated lead-based paint or
46 other potential sources of lead-based paint hazards.

47 "Weighted Arithmetic Mean" means the arithmetic mean of sample results weighted by the
48 number of subsamples in each sample. Its purpose is to give influence to a sample relative to the
49 surface area it represents. A single surface sample **comprises [is comprised of]** a single subsample. A
50 composite sample may contain from two to four subsamples of the same area as each other and of each
51 single surface sample in the composite. The weighted arithmetic mean is obtained by summing, for all
52 samples, the product of the sample's result multiplied by the number of subsamples in the sample, and

dividing the sum by the total number of subsamples contained in all samples. For example, the weighted arithmetic mean of a single surface sample containing 60 ug/ft², a composite sample of ~~(3)~~ three subsamples ~~(3)~~ containing 100 ug/ft², and a composite sample of ~~(4)~~ four subsamples ~~(3)~~ containing 110 ug/ft² is 100 ug/ft². This result is based on the equation $(60+(3*100)+(4*110))/(1+3+4)$.

"Wet Disposable Cleaning Cloth" means a commercially available, pre-moistened white disposable cloth designed to be used for cleaning hard surfaces such as uncarpeted floors or counter tops.

"Wet Mopping System" means a device with the following characteristics: A long handle, a mop head designed to be used with disposable absorbent cleaning pads, a reservoir for cleaning solution, and a built-in mechanism for distributing or spraying the cleaning solution onto a floor, or a method of equivalent efficacy.

"Window Trough" means, for a typical double-hung window, the portion of the exterior window sill between the interior window sill ~~(4)~~ or stool ~~(3)~~ and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when they are both lowered. The window trough is sometimes referred to as the window "well."

"Wipe Sample" means a sample collected by wiping a representative surface of known area, as determined by ASTM E1728/~~E1728M-20 pursuant to 40 CFR 745.67, ["Standard Practice for Field Collection of Settled Dust Samples Using Wipe Sampling Methods for Lead Determination by Atomic Spectrometry Techniques",]~~ or equivalent method, with an acceptable wipe material as defined in ASTM E1792-20 pursuant to 40 CFR 745.67. ~~["Standard Specification for Wipe Sampling Materials for Lead in Surface Dust."]~~

"Work Area" means the area that the certified renovator establishes to contain the dust and debris generated by a renovation.

"~~(0)~~Zero-Bedroom Dwelling" means any residential dwelling in which the living area is not separated from the sleeping area. The term includes efficiencies, studio apartments, dormitory housing, military barracks, and rentals of individual rooms in residential dwellings.

KEY: definitions, paint, lead-based paint

Date of Last Change: ~~September 1, 2021~~ 2026

Notice of Continuation: November 1, 2023

Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(i)

State of Utah
Administrative Rule Analysis
Revised May 2026

NOTICE OF SUBSTANTIVE CHANGE

TYPE OF FILING: Amendment	Filing ID: OFFICE USE ONLY
Rule or section number:	R307-841
Date of previous publication (only for CPRs):	

1. Agency Information

Title catchline:	Environmental Quality, Air Quality
Building:	Multi-Agency State Office Building
Street address:	195 N 1950 W
City, state:	Salt Lake City, UT
Mailing address:	PO Box 144820
City, state and zip:	Salt Lake City, UT 84114-4820

2. Contact Persons

Name:	Phone:	Email:
Tamie Call	385-227-1055	twcall@utah.gov
Leonard Wright	801-707-8032	leonardwright@utah.gov
Jazmine Lopez	801-536-4050	jazminelopez@utah.gov

Please address questions regarding information on this notice to the persons listed above.

3. General Information

A. Rule or section catchline:
R307-841. Residential Property and Child-Occupied Facility Renovation.
B. Purpose of the new rule or reason for the change:
The Division of Air Quality is updating Rule R307-841 to align with the new federal definitions and standards found in 40 Code of Federal Regulations (CFR) Part 745.
C. Summary of the new rule or change:
In October 2024, the Environmental Protection Agency (EPA) finalized stronger requirements for how to identify and clean up lead-based paint hazards in pre-1978 homes and childcare facilities. The final rule reduced the level of lead in dust that is considered hazardous from ten micrograms per square foot (µg/ft²) on floors and 100 µg/ft² on window sills to any reportable level as analyzed by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program. This change is being made because there is no level of lead in blood that is safe for children. The rule also lowered the amount of lead that can remain in dust on floors, window sills, and window troughs after a lead paint abatement occurs from: • 10 µg/ft² to 5 µg/ft² for floors, • 100 µg/ft² to 40 µg/ft² for window sills, and • 400 µg/ft² to 100 µg/ft² for window troughs. EPA also finalized changes to adopt the terms "Dust-lead Reportable Levels" and "Dust-lead Action Levels" as well as several other amendments, including revisions to both the definition of "Target Housing" and the definition of "Abatement" which now provides that EPA will recommend an abatement when dust-lead loadings are at or above the dust-lead action levels. The state of Utah is required to adopt the federal standards by 2027. Changes are also being made to bring Rule R307-841 into compliance with the Utah Rulewriting Manual and Executive Order 2021-12.

4. Legislative Action Information

A. Are any changes in this filing because of state legislative action?	Changes are not because of legislative action.
B. If yes, any bill number and session:	

5. Fiscal Information

Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

This is a standard change to lower the allowable amount of lead after abatement projects to meet the new EPA dust-lead action levels. This change should have no effect on the state budget.

B. Local governments:

This is a standard change to lower the allowable amount of lead after abatement projects to meet the new EPA dust-lead action levels. This change should have no effect on local government budgets.

C. Small businesses ("small business" means a business employing 1-49 persons):

Small Businesses will have to be more thorough with post-abatement cleaning in order to meet new dust-lead clearance levels. This could lead to slightly longer cleanup times and the increase of cleaning product use. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons):

A certified lead-based paint renovator company may incur additional costs at a job site since the allowable levels of lead in dust has been decreased. This could lead to slightly longer cleanup times and the increase of cleaning product use. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

Incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (i.e., quantity of lead per unit of surface area) to below the action levels. In some instances, floors may have to be sealed, overlaid, or replaced, or window sills sealed or repainted. Additional costs may result from the retesting of lead dust levels. Because of the lower laboratory reporting limits necessary for testing lead dust levels under this rule, incremental laboratory test costs are likely to increase. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, and the amount of disturbed lead in the renovated area.

F. Compliance costs for affected persons:

Incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (i.e., quantity of lead per unit of surface area) to below the action levels. In some instances, floors may have to be sealed, overlaid, or replaced, or window sills sealed or repainted. Additional costs may result from the retesting of lead dust levels. Because of the lower laboratory reporting limits necessary for testing lead dust levels under this rule, incremental laboratory test costs are likely to increase. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

6. Regulatory Impact Summary Table

Enter the cost or savings in the relevant cell. If there is no cost or savings, enter, "\$0." If a cost or savings is inestimable, enter, "inestimable."

Fiscal Cost	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$	\$	\$	\$	\$
Local Governments	\$	\$	\$	\$	\$
Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Non-Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Other Persons	inestimable	inestimable	inestimable	inestimable	inestimable
Total Fiscal Cost	inestimable	inestimable	inestimable	inestimable	inestimable
Fiscal Benefits	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$	\$	\$	\$	\$
Local Governments	\$	\$	\$	\$	\$
Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Non-Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Other Persons	inestimable	inestimable	inestimable	inestimable	inestimable
Total Fiscal Benefits	inestimable	inestimable	inestimable	inestimable	inestimable
Net Fiscal Benefits	inestimable	inestimable	inestimable	inestimable	inestimable

7. Regulatory Impact Analysis Approval

The Commissioner of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

8. Family Impact Information

A. The agency has considered this rule's impact on family health, stability, and formation: ☒

B. Summary of reasonable alternatives or modifications:

9. Citation Information

Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-2-104(1)(i)	40 CFR 745	

10. Incorporation by Reference Information

Incorporation by Reference (if this rule incorporates more than two items by reference, please include additional tables):

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

B. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

11. Public Notice Information

The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:

08/14/2026

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.):

Date:	Time (hh:mm AM/PM):	Place (physical address or URL):
08/07/2026	10:00 AM - 11:00 AM	A public hearing is set for August 7, 2026. Further details may be found below. The hearing will be cancelled should no request for one be made by August 5, 2026, at 10 AM MT. The final status of the public hearing will be posted on August 5, 2026, after 10 AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule. https://deq.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment Interested Persons can participate in person or electronically, via the internet. In Person: MASOB 195 N. 1950 W. Salt Lake City, UT, 84116, First Floor, Air Quality Board Room Virtual Attendance: Time zone: America/Denver Google Meet joining info: Video call link: https://meet.google.com/rho-fjjo-oct Or dial: (US) +1 401-830-3669 PIN: 913 658 639#

To the agency: If more than one hearing is planned to take place, continue to add rows.

12. Effective Date Information

This rule change MAY become effective on:

(NOTE: This is the date the agency anticipates making the filing effective. It is NOT the effective date)

10/07/2026

13. Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 63G-3-302, 63G-3-303, and 63G-3-402. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin* and delaying the first possible effective date.

Agency head or designee and title:

Bryce C. Bird, Director, Division of Air Quality

Date:

06/12/2026

R307. Environmental Quality, Air Quality.

R307-841. Residential Property and Child-Occupied Facility Renovation.

R307-841-1. Purpose.

This rule implements 40 Code of Federal Regulations (CFR) 745, regulations developed under Sections 402 and 406 of the Toxic Substances Control Act, [4] 15 U.S.C. 2682 and 2686, [5] and applies to all renovations performed for compensation in target housing and child-occupied facilities. The purpose of this rule is to ensure the following:

(1) Owners and occupants of target housing and child-occupied facilities receive information on lead-based paint hazards before these renovations begin; and

(2) Individuals performing renovations regulated in accordance with Section R307-841-3 are properly trained; renovators and firms performing these renovations are certified; and the work practices in Section R307-841-5 are followed during these renovations.

R307-841-2. Effective Dates.

(1) Training, certification and accreditation requirements, and work practice standards. The training, certification and accreditation requirements and work practice standards in this rule are applicable as follows:

(a) Training programs. Effective April 8, 2010, no training program may provide, offer, or claim to provide training or refresher training for director certification as a renovator or a dust sampling technician without accreditation from the director under Section R307-842-1. Training programs may apply for accreditation under Section R307-842-1;

(b) Firms.

(i) Firms may apply for certification under Section R307-841-7 beginning April 8, 2010.

(ii) On or after April 8, 2010, no firm may perform, offer, or claim to perform renovations without certification from the director under Section R307-841-7 in target housing or child-occupied facilities, unless the renovation qualifies as one of the exceptions identified in Subsection R307-841-3(1).

(c) Individuals. On or after April 8, 2010, all renovations must be directed by renovators certified in accordance with Subsection R307-841-8(1) and performed by certified renovators or individuals trained in accordance with Subsection R307-841-8(2)(b) in target housing or child-occupied facilities, unless the renovation qualifies for one of the exceptions identified in Subsection R307-841-3(1).

(d) Work practices. On or after July 5, 2012, renovations must be performed in accordance with the work practice standards in Section R307-841-5 and the associated recordkeeping requirements in Subsections R307-841-6(2)(a) and R307-841(2)(f) in target housing or child-occupied facilities, unless the renovation qualifies for the exception identified in Section R307-841-3(1).

[(i) On or after April 8, 2010 and before July 5, 2012, all renovations must be performed in accordance with the work practice standards in R307-841-5 and the associated recordkeeping requirements in R307-841-6(2)(a) and (2)(f) in target housing or child-occupied facilities, unless the renovation qualifies for the exceptions identified in R307-841-3(1). This does not apply to renovations in target housing for which the firm performing the renovation has obtained a statement signed by the owner that the renovation will occur in the owner's residence, no child under age six resides there, the housing is not a child-occupied facility, and the owner acknowledges that the work practices to be used during the renovation will not necessarily include all of the lead-safe work practices contained in EPA's renovation, repair, and painting rule. For the purposes of this section, a child resides in the primary residence of his or her custodial parents, legal guardians, and foster parents. A child also resides in the primary residence of an informal caretaker if the child lives and sleeps most of the time at the caretaker's residence.]

[(ii) On or after July 5, 2012, all renovations must be performed in accordance with the work practice standards in R307-841-5 and the associated recordkeeping requirements in R307-841-6(2)(a) and (2)(f) in target housing or child-occupied facilities, unless the renovation qualifies for the exception identified in R307-841-3(1).]

(2) Renovation-specific pamphlet. Renovators or firms performing renovations must provide owners and occupants with "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools."

R307-841-3. Applicability.

(1) This rule applies to all renovations performed for compensation in target housing and child-occupied facilities, except for the following:

(a) Renovations in target housing or child-occupied facilities in which a written determination has been made by an inspector or risk assessor, certified pursuant to [Section R307-842-2](#), that the components affected by the renovation are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams/per square centimeter (mg/cm²) or 0.5% by weight, where the firm performing the renovation has obtained a copy of the determination; or

(b) Renovations in target housing or child-occupied facilities in which a certified renovator, using an EPA-recognized test kit as defined in [Section R307-840-2](#) and following the kit manufacturer's instructions, has tested each component affected by the renovation and determined that the components are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5% by weight. If the components make up an integrated whole, such as the individual stair treads and risers of a single staircase, the renovator is required to test only one of the individual components, unless the individual components appear to have been repainted or refinished separately.

(c) Renovations in target housing or child-occupied facilities in which a certified renovator has collected a paint chip sample from each painted component affected by the renovation and a laboratory recognized by EPA pursuant to [\[s\]Section 405\(b\)](#) of TSCA as being capable of performing analyses for lead compounds in paint chip samples has determined that the samples are free of paint or other surface coatings that contain lead equal to or in excess of 1.0 mg/cm² or 0.5% by weight. If the components make up an integrated whole, such as the individual stair treads and risers of a single staircase, the renovator is required to test only one of the individual components, unless the individual components appear to have been repainted or refinished separately.

(2) The information distribution requirements in [Section R307-841-4](#) do not apply to emergency renovations, which are renovation activities that were not planned but result from a sudden, unexpected event [\[4\]](#) such as non-routine failures of equipment [\[3\]](#) that, if not immediately attended to, presents a safety or public health hazard, or threatens equipment [\[and\]](#) or property with significant damage. Interim controls performed in response to an elevated blood lead level in a resident child are also emergency renovations. Emergency renovations other than interim controls are also exempt from the warning sign, containment, waste handling, training, and certification requirements in [Sections R307-841-5, R307-841-7, and R307-841-8](#) to the extent necessary to respond to the emergency. Emergency renovations are not exempt from the cleaning requirements of [Subsection R307-841-5\(1\)\(e\)](#) which must be performed by certified renovators or individuals trained in accordance with [Subsection R307-841-8\(2\)\(b\)](#), the cleaning verification requirements of [Subsection R307-841-5\(2\)](#), which must be performed by certified renovators, and the recordkeeping requirements of [Subsections R307-841-6\(2\)\(e\) and R307-841-6\(2\)\(f\)](#).

R307-841-4. Information Distribution Requirements.

(1) Renovations in dwelling units. No more than 60 days before beginning renovation activities in any residential dwelling unit of target housing, the firm performing the renovation must:

(a) Provide the owner of the unit with the pamphlet, and comply with one of the following:

(i) Obtain, from the owner, a written acknowledgment that the owner has received the pamphlet; or

(ii) Obtain a certificate of mailing at least [seven \[7\]](#) days prior to the renovation; and

(b) If the owner does not occupy the dwelling unit, provide an adult occupant of the unit with the pamphlet, and comply with one of the following:

(i) Obtain, from the adult occupant, a written acknowledgment that the occupant has received the pamphlet, or certify in writing that a pamphlet has been delivered to the dwelling and that the firm performing the renovation has been unsuccessful in obtaining a written acknowledgment from an adult

1 occupant. Such certification must include the address of the unit undergoing renovation, the date and
2 method of delivery of the pamphlet, names of the persons delivering the pamphlet, reason for lack of
3 acknowledgment **such as [(e.g.,)]** occupant refuses to sign **[(7)]** or no adult occupant available **[(7)]**, the
4 signature of a representative of the firm performing the renovation, and the date of signature; or
5 (ii) Obtain a certificate of mailing at least **seven [7]** days prior to the renovation.
6 (2) Renovations in common areas. No more than 60 days before beginning renovation activities
7 in common areas of multi-unit target housing, the firm performing the renovation must:
8 (a) Provide the owner with the pamphlet, and comply with one of the following:
9 (i) Obtain, from the owner, a written acknowledgment that the owner has received the pamphlet;
10 or
11 (ii) Obtain a certificate of mailing at least **seven [7]** days prior to the renovation;
12 (b) Comply with one of the following:
13 (i) Notify in writing, or ensure written notification of, each affected unit and make the pamphlet
14 available upon request prior to the start of renovation. Such notification shall be accomplished by
15 distributing written notice to each affected unit. The notice shall describe the general nature and locations
16 of the planned renovation activities, the expected starting and ending dates, and a statement of how the
17 occupant can obtain the pamphlet and a copy of the records required by **Subsections R307-841-6(3) and**
18 **R307-841-6(6) [(4)]** at no cost to the occupants; or
19 (ii) While the renovation is ongoing, post informational signs describing the general nature and
20 locations of the renovation and the anticipated completion date. These signs must be posted in areas
21 where they are likely to be seen by the occupants of all of the affected units. The signs must be
22 accompanied by a posted copy of the pamphlet or information on how interested occupants can review a
23 copy of the pamphlet or obtain a copy from the renovation firm at no cost to occupants. The signs must
24 also include information on how interested occupants can review a copy of the records required by
25 **Subsections R307-841-6(3) and R307-841-6(6) [(4)]** or obtain a copy from the renovation firm at no cost
26 to the occupants;
27 (c) Prepare, sign, and date a statement describing the steps performed to notify all occupants of
28 the intended renovation activities and to provide the pamphlet; and
29 (d) If the scope, locations, or expected starting and ending dates of the planned renovation
30 activities change after the initial notification, and the firm provided written initial notification to each
31 affected unit, the firm performing the renovation must provide further written notification to the owners
32 and occupants providing revised information on the ongoing or planned activities. This subsequent
33 notification must be provided before the firm performing the renovation initiates work beyond that which
34 was described in the original notice.
35 (3) Renovations in child-occupied facilities. No more than 60 days before beginning renovation
36 activities in any child-occupied facility, the firm performing the renovation must:
37 (a) **[(+)]** Provide the owner of the building with the pamphlet, and comply with one of the
38 following:
39 **[(A)](i)** Obtain, from the owner, a written acknowledgment that the owner has received the
40 pamphlet; or
41 **[(B)](ii)** Obtain a certificate of mailing at least **seven [7]** days prior to the renovation;
42 **[(+)](b)** If the adult representative of the child-occupied facility is not the owner of the building,
43 provide an adult representative of the child-occupied facility with the pamphlet, and comply with one of
44 the following:
45 **[(A)](i)** Obtain, from the adult representative, a written acknowledgment that the adult
46 representative has received the pamphlet, or certify in writing that a pamphlet has been delivered to the
47 facility and that the firm performing the renovation has been unsuccessful in obtaining a written
48 acknowledgment from an adult representative. Such certification must include the address of the child-
49 occupied facility undergoing renovation, the date and method of delivery of the pamphlet, names of the
50 persons delivering the pamphlet, reason for lack of acknowledgment **such as [(e.g.,)]** representative refuses
51 to sign **[(7)]**, the signature of a representative of the firm performing the renovation, and the date of
52 signature; or

1 ~~(B)~~(ii) Obtain a certificate of mailing at least seven ~~[7]~~ days prior to the renovation;

2 ~~(b)~~(c) Provide the parents and guardians of children using the child-occupied facility with the

3 pamphlet and information describing the general nature and locations of the renovation and the

4 anticipated completion date and information on how interested parents or guardians of children

5 frequenting the child-occupied facility can review a copy of the records required by Subsections R307-

6 841-6(3) and R307-841-6(6)(4) or obtain a copy from the renovation firm at no cost to the parents or

7 guardians by complying with one of the following:

8 (i) Mail, electronically-deliver or hand-deliver the pamphlet and the renovation information to

9 each parent or guardian of a child using the child-occupied facility; or

10 (ii) While the renovation is ongoing, post informational signs describing the general nature and

11 locations of the renovation and the anticipated completion date. These signs must be posted in areas

12 where they can be seen by the parents or guardians of the children frequenting the child-occupied facility.

13 The signs must be accompanied by a posted copy of the pamphlet or information on how interested

14 parents or guardians of children frequenting the child-occupied facility can review a copy of the pamphlet

15 or obtain a copy from the renovation firm at no cost to the parents or guardians. The signs must also

16 include information on how interested parents or guardians of children frequenting the child-occupied

17 facility can review a copy of the records required by Subsections R307-841-6(3) and R307-841-6(6)(4)

18 or obtain a copy from the renovation firm at no cost to the parents or guardians.

19 ~~(e)~~(d) The renovation firm must prepare, sign, and date a statement describing the steps

20 performed to notify all parents and guardians of the intended renovation activities and to provide the

21 pamphlet.

22 (4) Written acknowledgment. The written acknowledgments required by ~~paragraphs~~

23 Subsections R307-841-4(1)(a)(i), R307-841-4(1)(b)(i), R307-841-4(2)(a)(i), R307-841-4(3)(a)(i)(A),

24 and R307-841-4(3)(a)(ii)(A)(b)(i) ~~[of this section]~~ must:

25 (a) Include a statement recording the owner or occupant's name and acknowledging receipt of the

26 pamphlet prior to the start of renovation, the address of the unit undergoing renovation, the signature of

27 the owner or occupant as applicable, and the date of signature;

28 (b) Be either a separate sheet or part of any written contract or service agreement for the

29 renovation; and

30 (c) Be written in the same language as the text of the contract or agreement for the renovation or,

31 in the case of non-owner occupied target housing, in the same language as the lease or rental agreement or

32 the pamphlet.

33

34 **R307-841-5. Work Practice Standards.**

35 (1) Standards for renovation activities. Renovations must be performed by firms certified under

36 Section R307-841-7 using renovators certified under Section R307-841-8. The responsibilities of

37 certified firms are set forth in Subsection R307-841-7(4) and the responsibilities of certified renovators

38 are set forth in Subsection R307-841-8(2).

39 (a) Occupant protection. Firms must post signs clearly defining the work area and warning

40 occupants and other persons not involved in renovation activities to remain outside of the work area. To

41 the extent practicable, these signs must be in the primary language of the occupants. These signs must be

42 posted before beginning the renovation, must remain in place, and must be readable until the renovation

43 and the post-renovation cleaning verification have been completed. If warning signs have been posted in

44 accordance with 24 CFR 35.1345(b)(2) or 29 CFR 1926.62(m), additional signs are not required by this

45 section.

46 (b) Containing the work area. Before beginning the renovation, the firm must isolate the work

47 area so that no dust or debris leaves the work area while the renovation is being performed. In addition,

48 the firm must maintain the integrity of the containment by ensuring that any plastic or other impermeable

49 materials are not torn or displaced, and taking any other steps necessary to ensure that no dust or debris

50 leaves the work area while the renovation is being performed. The firm must also ensure that

51 containment is installed in such a manner that it does not interfere with occupant and worker egress in an

52 emergency.

(i) Interior renovations. The firm must:

(A) Remove all objects from the work area, including furniture, rugs, and window coverings, or cover them with plastic sheeting or other impermeable material with all seams and edges taped or otherwise sealed;

(B) Close and cover all duct openings in the work area with taped-down plastic sheeting or other impermeable material;

(C) Close windows and doors in the work area. Doors must be covered with plastic sheeting or other impermeable material. Doors used as an entrance to the work area must be covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area;

(D) Cover the floor surface, including installed carpet, with taped-down plastic sheeting or other impermeable material in the work area **six [6]** feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to contain the dust, whichever is greater. Floor containment measures may stop at the edge of the vertical barrier when using a vertical containment system consisting of impermeable barriers that extend from the floor to the ceiling and are tightly sealed at joints with the floor, ceiling, and walls; and

(E) Use precautions to ensure that all personnel, tools, and other items, including the exterior of containers of waste, are free of dust and debris before leaving the work area.

(ii) Exterior renovations. The firm must:

(A) Close all doors and windows within 20 feet of the renovation. On multi-story buildings, close all doors and windows within 20 feet of the renovation on the same floor as the renovation, and close all doors and windows on all floors below that are the same horizontal distance from the renovation;

(B) Ensure that doors within the work area that will be used while the job is being performed are covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area;

(C) Cover the ground with plastic sheeting or other disposable impermeable material extending **[40] ten** feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to collect falling paint debris, whichever is greater, unless the property line prevents **[40] ten** feet of such ground covering. Ground containment measures may stop at the edge of the vertical barrier when using a vertical containment system; and

(D) If the renovation will affect surfaces within **[40] ten** feet of the property line, the renovation firm must erect vertical containment or equivalent extra precautions in containing the work area to ensure that dust and debris from the renovation does not contaminate adjacent buildings or migrate to adjacent properties. Vertical containment or equivalent extra precautions in containing the work area may also be necessary in other situations in order to prevent contamination of other buildings, other areas of the property, or adjacent buildings or properties.

(c) Prohibited and restricted practices. The work practices listed below are prohibited or restricted during a renovation as follows:

(i) Open-flame burning or torching of painted surfaces is prohibited;

(ii) The use of machines designed to remove paint or other surface coatings through high speed operation such as sanding, grinding, power planing, needle gun, abrasive blasting, or sandblasting, is prohibited on painted surfaces unless such machines have shrouds or containment systems and are equipped with a HEPA vacuum attachment to collect dust and debris at the point of generation. Machines must be operated so that no visible dust or release of air occurs outside the shroud or containment system; and

(iii) Operating a heat gun on painted surfaces is permitted only at temperatures below 1,100 degrees Fahrenheit.

(d) Waste from renovations.

(i) Waste from renovation activities must be contained to prevent releases of dust and debris before the waste is removed from the work area for storage or disposal. If a chute is used to remove waste from the work area, it must be covered.

(ii) At the conclusion of each work day and at the conclusion of the renovation, waste that has been collected from renovation activities must be stored under containment, in an enclosure, or behind a barrier that prevents release of dust and debris out of the work area and prevents access to dust and debris.

(iii) **[When]** **If** the firm transports waste from renovation activities, the firm must contain the waste to prevent release of dust and debris.

(e) Cleaning the work area. After the renovation has been completed, the firm must clean the work area until no dust, debris, or residue remains.

(i) Interior and exterior renovations. The firm must:

(A) Collect all paint chips and debris and, without dispersing any of it, seal this material in a heavy-duty bag; and

(B) Remove the protective sheeting. Mist the sheeting before folding it, fold the dirty side inward, and either tape shut to seal or seal in heavy-duty bags. Sheeting used to isolate contaminated rooms from non-contaminated rooms must remain in place until after the cleaning and removal of other sheeting. Dispose of the sheeting as waste.

(ii) Additional cleaning for interior renovations. The firm must clean all objects and surfaces in the work area and within **[2] two** feet of the work area in the following manner, cleaning from higher to lower:

(A) Walls. Clean walls starting at the ceiling and working down to the floor by either vacuuming with a HEPA vacuum or wiping with a damp cloth;

(B) Remaining surfaces. Thoroughly vacuum all remaining surfaces and objects in the work area, including furniture and fixtures, with a HEPA vacuum. The HEPA vacuum must be equipped with a beater bar when vacuuming carpets and rugs; and

(C) Wipe all remaining surfaces and objects in the work area, except for carpeted or upholstered surfaces, with a damp cloth. Mop uncarpeted floors thoroughly, using a mopping method that keeps the wash water separate from the rinse water, such as the **[2]two**-bucket mopping method, or using a wet mopping system.

(2) Standards for post-renovation cleaning verification.

(a) Interiors.

(i) A certified renovator must perform a visual inspection to determine whether dust, debris, or residue is still present. If dust, debris, or residue is present, these conditions must be removed by re-cleaning and another visual inspection must be performed.

(ii) After a successful visual inspection, a certified renovator must:

(A) Verify that each windowsill in the work area has been adequately cleaned, using the following procedure.

(I) Wipe the windowsill with a wet disposable cleaning cloth that is damp to the touch. If the cloth matches or is lighter than the cleaning verification card, the windowsill has been adequately cleaned.

(II) If the cloth does not match and is darker than the cleaning verification card, re-clean the windowsill as directed in **[paragraphs]** **Subsections R307-841-5(1)(e)(ii)(B) and R307-841-5(1)(e)(ii)(C) [of this section]**, then either use a new cloth or fold the used cloth in such a way that an unused surface is exposed, and wipe the surface again. If the cloth matches or is lighter than the cleaning verification card, that windowsill has been adequately cleaned.

(III) If the cloth does not match and is darker than the cleaning verification card, wait for **one [1]** hour or until the surface has dried completely, whichever is longer.

(IV) After waiting for the windowsill to dry, wipe the windowsill with a dry disposable cleaning cloth. After this wipe, the windowsill has been adequately cleaned.

(B) Wipe uncarpeted floors and countertops within the work area with a wet disposable cleaning cloth. Floors must be wiped using **an** application device with a long handle and a head to which the cloth is attached. The cloth must remain damp at all times while it is being used to wipe the surface for post-renovation cleaning verification. If the surface within the work area is greater than 40 square feet, the surface within the work area must be divided into roughly equal sections that are each less than 40 square feet. Wipe each such section separately with a new wet disposable cleaning cloth. If the cloth used to

wipe each section of the surface within the work area matches the cleaning verification card, the surface has been adequately cleaned.

(I) If the cloth used to wipe a particular surface section does not match the cleaning verification card, re-clean that section of the surface as directed in ~~paragraphs~~ Subsections R307-841-5(1)(e)(ii)(B) and R307-841-5(1)(e)(ii)(C) ~~of this section~~, then use a new wet disposable cleaning cloth to wipe that section again. If the cloth matches the cleaning verification card, that section of the surface has been adequately cleaned.

(II) If the cloth used to wipe a particular surface section does not match the cleaning verification card after the surface has been re-cleaned, wait for one [4] hour or until the entire surface within the work area has dried completely, whichever is longer.

(III) After waiting for the entire surface within the work area to dry, wipe each section of the surface that has not yet achieved post-renovation cleaning verification with a dry disposable cleaning cloth. After this wipe, that section of the surface has been adequately cleaned.

(iii) ~~When~~ If the work area passes the post-renovation cleaning verification, remove the warning signs.

(b) Exteriors. A certified renovator must perform a visual inspection to determine whether dust, debris, or residue is still present on surfaces in and below the work area, including windowsills and the ground. If dust, debris, or residue is present, these conditions must be eliminated and another visual inspection must be performed. ~~When~~ If the area passes the visual inspection, remove the warning signs.

(3) Optional dust clearance testing. Cleaning verification need not be performed if the contract between the renovation firm and the person contracting for the renovation or another federal, state, territorial, tribal, or local law or regulation requires:

(a) The renovation firm to perform dust clearance sampling at the conclusion of a renovation covered by this rule.

(b) The dust clearance samples are required to be collected by a certified inspector, risk assessor, or dust sampling technician.

(c) The renovation firm is required to re-clean the work area until the dust clearance sample results are below the clearance standards dust-lead action levels in Section R307-842-3(5)(i) R307-840-2 or any local standard.

(4) Activities conducted after post-renovation cleaning verification. Activities that do not disturb paint, such as applying paint to walls that have already been prepared, are not regulated by this rule if they are conducted after post-renovation cleaning verification has been performed.

R307-841-6. Recordkeeping and Reporting Requirements.

(1) Firms performing renovations must retain and, if requested, make available to the director all records necessary to demonstrate compliance with this rule for a period of [3] three years following completion of the renovation. This [3]three-year retention requirement does not supersede longer obligations required by other provisions for retaining the same documentation.

(2) Records that must be retained pursuant to ~~paragraph~~ Subsection R307-841-6(1) ~~of this section~~ shall include ~~(f) where applicable (j)~~:

(a) Records or reports certifying that a determination had been made that lead-based paint is not present on the components affected by the renovation, as described in Subsection R307-841-3(1). These records or reports include:

(i) Reports prepared by a certified inspector or certified risk assessor certified pursuant to Section R307-842-2.

(ii) Records prepared by a certified renovator after using EPA-recognized test kits, including an identification of the manufacturer and model of any test kits used, a description of the components that were tested including their locations, and the result of each test kit used.

(iii) Records prepared by a certified renovator after collecting paint chip samples, including a description of the components that were tested including their locations, the name and address of the NLLAP-recognized entity performing the analysis, and the results for each sample.

(b) Signed and dated acknowledgments of receipt as described in Subsections R307-841-4(1)(a)(i), R307-841-4(1)(b)(i), R307-841-4(2)(a)(i), R307-841-4(3)(a)(i) ~~[(A)]~~, and R307-841-4(3)(b)(i) ~~[(a)(ii)(A)]~~.

(c) Certifications of attempted delivery as described in Subsections R307-841-4(1)(b)(i) and R307-841-4(3)(b)(i) ~~[(a)(ii)(A)]~~.

(d) Certificates of mailing as described in Subsections R307-841-4(1)(a)(ii), R307-841-4(1)(b)(ii), R307-841-4(2)(a)(ii), R307-841-4(3)(a)(ii) ~~[(i)(B)]~~, and R307-841-4(3)(b)(ii) ~~[(a)(ii)(B)]~~.

(e) Records of notification activities performed regarding common area renovations, as described in Subsections R307-841-4(2)(c) and R307-841-4(2)(d), and renovations in child-occupied facilities, as described in Subsection R307-841-4(3)(c) ~~[(b)]~~.

(f) Documentation of compliance with the requirements of Section R307-841-5, including documentation that a certified renovator was assigned to the project, that the certified renovator provided on-the-job training for workers used on the project in a language that the workers can comprehend, that the certified renovator performed or directed workers who performed all of the tasks described in Subsection R307-841-5(1), and that the certified renovator performed the post-renovation cleaning verification described in Subsection R307-841-5(2). If the renovation firm was unable to comply with all of the requirements of ~~[this rule]~~ Rule R307-841 due to an emergency as defined in Section R307-841-3, the firm must document the nature of the emergency and the ~~[provisions of the rule]~~ requirements that were not followed. This documentation must include a copy of the certified renovator's current Utah Lead-Based Paint Renovator certification card, and a certification by the certified renovator assigned to the project that:

(i) Training was provided to workers. ~~[(4)]~~ Topics must be identified for each worker ~~[(7)]~~.

(ii) Warning signs were posted at the entrances to the work area.

(iii) If test kits were used, that the specified brand of kits was used at the specified locations and that the results were as specified.

(iv) If paint chip samples were collected, that the samples were collected at the specified locations, that the specified NLLAP-recognized laboratory analyzed the samples, and that the results were as specified.

(v) The work area was contained by:

(A) Removing or covering all objects in the work area ~~for~~ ~~[(4)]~~ interiors ~~[(7)]~~;

(B) Closing and covering all HVAC ducts in the work area ~~for~~ ~~[(4)]~~ interiors ~~[(7)]~~;

(C) Closing all windows in the work area ~~for~~ ~~[(4)]~~ interiors ~~[(7)]~~ or closing all windows in and within 20 feet of the work area ~~for~~ ~~[(4)]~~ exteriors ~~[(7)]~~;

(D) Closing and sealing all doors in the work area ~~for~~ ~~[(4)]~~ interiors ~~[(7)]~~ or closing and sealing all doors in and within 20 feet of the work area ~~for~~ ~~[(4)]~~ exteriors ~~[(7)]~~;

(E) Covering doors in the work area that were being used to allow passage but prevent spread of dust;

(F) Covering the floor surface, including installed carpet, with taped-down plastic sheeting or other impermeable material in the work area ~~six~~ ~~[(6)]~~ feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to contain the dust, whichever is greater ~~for~~ ~~[(4)]~~ interiors ~~[(7)]~~ or covering the ground with plastic sheeting or other disposable impermeable material anchored to the building extending ~~[(40)]~~ ~~ten~~ feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to collect falling paint debris, whichever is greater, unless the property line prevents ~~[(40)]~~ ~~ten~~ feet of such ground covering, weighted down by heavy objects ~~for~~ ~~[(4)]~~ exteriors ~~[(7)]~~; and

(G) Installing ~~[(if necessary)]~~ vertical containment to prevent migration of dust and debris to adjacent property ~~for~~ ~~[(4)]~~ exteriors ~~[(7)]~~.

(vi) Waste was contained on-site and while being transported off-site.

(vii) The work area was properly cleaned after the renovation by:

(A) Picking up all chips and debris, misting protective sheeting, folding it dirty side inward, and taping it for removal; and

(B) Cleaning the work area surfaces and objects using a HEPA vacuum and ~~[(or)]~~ wet cloths or mops ~~for~~ ~~[(4)]~~ interiors ~~[(7)]~~.

(viii) The certified renovator performed the post-renovation cleaning verification, ~~[(c)]~~ the results of which must be briefly described, including the number of wet and dry cloths used ~~[(3)]~~.

(3) ~~[(a)]~~ When the final invoice for the renovation is delivered or within 30 days of the completion of the renovation, whichever is earlier, the renovation firm must provide information pertaining to compliance with this rule to the following persons:

~~[(4)]~~(a) The owner of the building; and, if different,

~~[(4)]~~(b) An adult occupant of the residential dwelling, if the renovation took place within a residential dwelling, or an adult representative of the child-occupied facility, if the renovation took place within a child-occupied facility.

~~[(b)]~~(4) ~~When~~ If performing renovations in common areas of multi-unit target housing, renovation firms must post the information required by this rule or instructions on how interested occupants can obtain a copy of this information. This information must be posted in areas where it is likely to be seen by the occupants of all of the affected units.

~~[(e)]~~(5) The information required to be provided by ~~paragraph~~ Subsection R307-841-6(3) ~~of this section~~ may be provided by completing the sample form titled "Sample Renovation Recordkeeping Checklist" or a similar form containing the test kit information required by Subsection R307-841-6(2)(a)(ii) and the training and work practice compliance information required by Subsection R307-841-6(2)(f).

~~[(4)]~~(6) If dust clearance sampling is performed in lieu of cleaning verification as permitted by Subsection R307-841-5(3), the renovation firm must provide, when the final invoice for the renovation is delivered or within 30 days of the completion of the renovation, whichever is earlier, a copy of the dust sampling report to:

(a) The owner of the building; and, if different,

(b) An adult occupant of the residential dwelling, if the renovation took place within a residential dwelling, or an adult representative of the child-occupied facility, if the renovation took place within a child-occupied facility.

~~[(e)]~~(7) ~~When~~ If performing renovations in common areas of multi-unit target housing, renovation firms must post these dust sampling reports or information on how interested occupants of the housing being renovated can obtain a copy of the report. This information must be posted in areas where they are likely to be seen by the occupants of all of the affected units.

R307-841-7. Firm Certification.

(1) Initial certification.

(a) Firms that perform renovations for compensation must apply to the director for certification to perform renovations or dust sampling. To apply, a firm must submit to the director a completed ~~"Lead-Based Paint Certification"~~ "Application for Firms," signed by an authorized agent of the firm, and pay the ~~correct amount of~~ fees.

(b) After the director receives a firm's application, the director will take one of the following actions within 90 days of the date the application is received:

(i) The director will approve a firm's application if the director determines that it is complete and that the environmental compliance history of the firm, its principals, or its key employees does not show an unwillingness or inability to maintain compliance with environmental statutes or regulations. An application is complete if it contains all of the information requested on the form and includes ~~at least the correct amount of fees.~~ ~~When~~ If the director approves a firm's application, the director will issue the firm a certificate with an expiration date not more than ~~five~~ ~~5~~ years from the date the application is approved;

(ii) The director will request a firm to supplement its application if the director determines that the application is incomplete. If the director requests a firm to supplement its application, the firm must submit the requested information or pay the additional fees within 30 days of the date of the request; and

(iii) The director will not approve a firm's application if the firm does not supplement its application in accordance with ~~paragraph~~ Subsection R307-841-7(1)(b)(ii) ~~of this section~~ or if the director determines that the environmental compliance history of the firm, its principals, or its key

employees demonstrates an unwillingness or inability to maintain compliance with environmental statutes or regulations. The director will send the firm a letter giving the reason for not approving the application. The director will not refund the application fees. A firm may reapply for certification at any time by filing a new, complete application that includes the ~~correct amount of~~ fees.

(2) Re-certification. To maintain its certification, a firm must be re-certified by the director.

(a) Timely and complete application. To be re-certified, a firm must submit a complete application for re-certification. A complete application for re-certification includes a completed "Lead-Based Paint Certification Application for Firms" which contains all of the information requested by the form and is signed by an authorized agent of the firm, noting on the form that it is submitted as a re-certification. A complete application must also include the correct amount of fees.

(i) An application for re-certification is timely if it is postmarked 90 days or more before the date the firm's current certification expires. If the firm's application is complete and timely, the firm's current certification will remain in effect until its expiration date or until the director has made a final decision to approve or disapprove the re-certification application, whichever is later.

(ii) If the firm submits a complete re-certification application less than 90 days before its current certification expires, and the director does not approve the application before the expiration date, the firm's current certification will expire and the firm will not be able to conduct renovations until the director approves its re-certification application.

(iii) If the firm fails to obtain re-certification before the firm's current certification expires, the firm must not perform renovations or dust sampling until it is certified anew pursuant to ~~[-paragraph]~~ Subsection R307-841-7(1) ~~[-of this section]~~.

(b) Director's action on an application. After the director receives a firm's application for re-certification, the director will review the application and take one of the following actions within 90 days of receipt:

(i) The director will approve a firm's application if the director determines that it is timely and complete and that the environmental compliance history of the firm, its principals, or its key employees does not show an unwillingness or inability to maintain compliance with environmental statutes or regulations. ~~When~~ If the director approves a firm's application for re-certification, the director will issue the firm a new certificate with an expiration date not more than ~~5~~ five years from the date that the firm's current certification expires.

(ii) The director will request a firm to supplement its application if the director determines that the application is incomplete.

(iii) The director will not approve a firm's application if it is not received or is not complete as of the date that the firm's current certification expires, or if the director determines that the environmental compliance history of the firm, its principals, or its key employees demonstrates an unwillingness or inability to maintain compliance with environmental statutes or regulations. The director will send the firm a letter giving the reason for not approving the application. The director will not refund the application fees. A firm may reapply for certification at any time by filing a new application and paying the ~~correct amount of~~ fees.

(3) Amendment of certification. A firm must amend its certification within 90 days of the date a change occurs to information included in the firm's most recent application. If the firm fails to amend its certification within 90 days of the date the change occurs, the firm may not perform renovations or dust sampling until its certification is amended.

(a) To amend a certification, a firm must submit a completed ~~"Lead-Based Paint Certification"~~ "Application for Firms," signed by an authorized agent of the firm, noting on the form that it is submitted as an amendment and indicating the information that has changed. The firm must also pay at least the ~~correct amount of~~ fees.

(b) If additional information is needed to process the amendment, or the firm did not pay the ~~correct amount of~~ fees, the director will request the firm to submit the necessary information or fees. The firm's certification is not amended until the firm complies with the request.

(c) Amending a certification does not affect the certification expiration date.

(4) Firm responsibilities. Firms performing renovations must ensure that:

- (a) All individuals performing renovation activities on behalf of the firm are either certified renovators or have been trained by a certified renovator in accordance with Section R307-841-8;
- (b) A certified renovator is assigned to each renovation performed by the firm and discharges all of the certified renovator responsibilities identified in Section R307-841-8;
- (c) All renovations performed by the firm are performed in accordance with the work practice standards in Section R307-841-5;
- (d) The pre-renovation education requirements of Section R307-841-4 have been performed; and
- (e) The recordkeeping requirements of Section R307-841-6 are met.

R307-841-8. Renovator Certification and Dust Sampling Technician Certification.

- (1) Renovator certification and dust sampling technician certification.

(a) To become a certified renovator or certified dust sampling technician, an individual must successfully complete an initial lead-based paint renovator or dust-sampling technician course accredited by the director under Section R307-842-1, the EPA under 40 CFR 745.225, or a state or tribal program that has been authorized by EPA pursuant to subpart Q of 40 CFR 745.

~~[(b) Individuals who have successfully completed an accredited abatement worker or supervisor course, or individuals who successfully completed a director, EPA, HUD, or EPA/HUD model renovation training course before October 4, 2011, but no later than the training course expiration date found on that training certificate, may take an accredited refresher renovator training course that includes hands-on training in lieu of the initial renovator training course to become a certified renovator.~~

~~(c) Individuals who have successfully completed an accredited lead-based paint inspector or risk assessor course before October 4, 2011, but no later than the training course expiration date found on that training certificate, may take an accredited refresher dust sampling technician course in lieu of the initial training to become a certified dust sampling technician. Individuals who are currently certified as lead-based paint inspectors or risk assessors may act as certified dust sampling technicians without further training.~~

~~[(d)](b)~~ To maintain renovator certification or dust sampling technician certification, an individual must complete a renovator or dust sampling technician refresher course accredited by the director under Section R307-842-1, the EPA under 40 CFR 745.225, or by a state or tribal program that is authorized under subpart Q of 40 CFR 745 within [5] five years of the date the individual completed the initial course described in ~~[paragraph]~~ Subsection R307-841-8(1)(a) [of this section]. If the individual does not complete a refresher course within this time, the individual must re-take the initial course to become certified again. ~~Individuals who complete a renovator course accredited by the director under R307-842-1, the EPA or an EPA authorized program on or before March 31, 2010, must complete a renovator refresher course accredited by the director under R307-842-1, the EPA or an EPA authorized program on or before March 31, 2016, to maintain renovator certification. Individuals who completed a renovator course accredited by the director under R307-842-1, the EPA or an EPA authorized program between April 1, 2010 and March 31, 2011, will have one year added to their original 5-year training certificate expiration date.~~ Individuals who take a renovator refresher course that does not include hands-on training will have a training course certificate expiration date three [3] years from the date they complete the training. Individuals who take a refresher training course that includes hands-on training will have a training course certificate expiration date five [5] years from the date they complete the training. Individuals who take the renovator refresher course without hands-on training must, for their next renovator refresher course, take a course that includes hands-on training.

~~[(e)](c)~~ An individual shall be re-certified as a renovator or a dust sampling technician if the individual successfully completes the appropriate lead-based paint accredited refresher training course and submits a valid copy of the appropriate refresher course completion certificate. During the time period when the individual is not certified by the director, that individual cannot perform any regulated work activities that requires individual certification.

(2) Renovator responsibilities. Certified renovators are responsible for ensuring compliance with Section R307-841-5 at all renovations to which they are assigned. A certified renovator:

- (a) Must perform all of the tasks described in **Subsection** R307-841-5(2) and must either perform or direct workers who perform all of the tasks described in **Subsection** R307-841-5(1);
- (b) Must provide training to workers on the work practices required by **Subsection** R307-841-5(1) that they will be using in performing their assigned tasks;
- (c) Must be physically present at the work site when the signs required by **Subsection** R307-841-5(1)(a) are posted, while the work area containment required by **Subsection** R307-841-5(1)(b) is being established, and while the work area cleaning required by **Subsection** R307-841-5(1)(e) is performed;
- (d) Must regularly direct work being performed by other individuals to ensure that the work practices required by **Subsection** R307-841-5(1) are being followed, including maintaining the integrity of the containment barriers and ensuring that dust or debris does not spread beyond the work area;
- (e) Must be available, either on-site or by telephone, at all times that renovations are being conducted;
- (f) **[When]** If requested by the **[party]** person contracting for renovation services, must use an acceptable test kit to determine whether components to be affected by the renovation contain lead-based paint;
- (g) Must have with them at the work site their current Utah Lead-Based Paint Renovator certification card; and
- (h) Must prepare the records required by **Subsections** R307-841-6(2)(a)(ii), **R307-841-6(2)(a)** (iii), and **R307-841-6(2)(f)**.
- (3) Dust sampling technician responsibilities. **[When]** If performing optional dust clearance sampling under **Subsection** R307-841-5(3), a certified dust sampling technician:
- (a) Must collect dust samples in accordance with **Subsection** R307-842-3(5)(h), must send the collected samples to a laboratory recognized by EPA under TSCA Section 405(b), and must compare the results to the **[clearance]** **action** levels in accordance with **Section** **[R307-842-3(5)(h)]** **R307-840-2**; and
- (b) Must have with them at the work site their current Utah Lead-Based Paint Dust Sampling Technician certification card.

R307-841-9. Suspending, Revoking, or Modifying an Individual's or Firm's Certification.

- (1) Grounds for suspending, revoking, or modifying an individual's certification. The director may suspend, revoke, or modify an individual's certification if the individual fails to comply with state lead-based paint administrative rules. The director may also suspend, revoke, or modify a certified renovator's certification if the renovator fails to ensure that all assigned renovations comply with **Section** R307-841-5. In addition to an administrative or judicial finding of violation, execution of a consent agreement in settlement of an enforcement action constitutes, for purposes of **Section** R307-841-5 **[this section]**, evidence of a failure to comply with relevant statutes or regulations.
- (2) Grounds for suspending, revoking, or modifying a firm's certification. The director may suspend, revoke, or modify a firm's certification if the firm:
- (a) Submits false or misleading information to the director in its application for certification or re-certification,
- (b) Fails to maintain or falsifies records required in **Section** R307-841-6, or
- (c) Fails to comply, or an individual performing a renovation on behalf of the firm fails to comply, with state lead-based paint administrative rules. In addition to an administrative or judicial finding of violation, execution of a consent agreement in settlement of an enforcement action constitutes, for purposes of **Section** R307-841-5 **[this section]**, evidence of a failure to comply with relevant statutes or regulations.

KEY: paint, lead-based paint, lead-based paint renovation

Date of Last Change: [September 1, 2021] 2026

Notice of Continuation: October 2, 2024

Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(i)

State of Utah
Administrative Rule Analysis
Revised May 2026

NOTICE OF SUBSTANTIVE CHANGE

TYPE OF FILING: Amendment	Filing ID: OFFICE USE ONLY
Rule or section number:	R307-842
Date of previous publication (only for CPRs):	

1. Agency Information

Title catchline:	Environmental Quality, Air Quality
Building:	Multi-Agency State Office Building
Street address:	195 N 1950 W
City, state:	Salt Lake City, UT
Mailing address:	PO Box 144820
City, state and zip:	Salt Lake City, UT 84114-4820

2. Contact Persons

Name:	Phone:	Email:
Tamie Call	385-227-1055	twcall@utah.gov
Leonard Wright	801-707-8032	leonardwright@utah.gov
Jazmine Lopez	801-536-4050	jazminelopez@utah.gov

Please address questions regarding information on this notice to the persons listed above.

3. General Information

A. Rule or section catchline:
R307-842. Lead-Based Paint Activities.
B. Purpose of the new rule or reason for the change:
The Division of Air Quality is updating Rule R307-842 to align with the new federal definitions and standards found in 40 Code of Federal Regulations (CFR) Part 745.
C. Summary of the new rule or change:
In October 2024, the Environmental Protection Agency (EPA) finalized stronger requirements for how to identify and clean up lead-based paint hazards in pre-1978 homes and childcare facilities. The final rule reduced the level of lead in dust that is considered hazardous from ten micrograms per square foot (µg/ft²) on floors and 100 µg/ft² on window sills to any reportable level as analyzed by a laboratory recognized by EPA's National Lead Laboratory Accreditation Program. This change is being made because there is no level of lead in blood that is safe for children. The rule also lowered the amount of lead that can remain in dust on floors, window sills, and window troughs after a lead paint abatement occurs from: • 10 µg/ft² to 5 µg/ft² for floors, • 100 µg/ft² to 40 µg/ft² for window sills, and • 400 µg/ft² to 100 µg/ft² for window troughs. EPA also finalized changes to adopt the terms "Dust-lead Reportable Levels" and "Dust-lead Action Levels" as well as several other amendments, including revisions to both the definition of "Target Housing" and the definition of "Abatement" which now provides that EPA will recommend an abatement when dust-lead loadings are at or above the dust-lead action levels. The state of Utah is required to adopt the federal standards by 2027. Changes are also being made to bring Rule R307-842 into compliance with the Utah Rulewriting Manual and Executive Order 2021-12.

4. Legislative Action Information

A. Are any changes in this filing because of state legislative action?	Changes are not because of legislative action.
B. If yes, any bill number and session:	

5. Fiscal Information

Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

This is a standard change to lower the allowable amount of lead after abatement projects to meet the new EPA dust-lead action levels. This change should have no effect on the state budget.

B. Local governments:

This is a standard change to lower the allowable amount of lead after abatement projects to meet the new EPA dust-lead action levels. This change should have no effect on local government budgets.

C. Small businesses ("small business" means a business employing 1-49 persons):

Small Businesses will have to be more thorough with post-abatement cleaning in order to meet new dust-lead clearance levels. This could lead to slightly longer cleanup times and the increase of cleaning product use. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons):

A certified lead-based paint renovator company may incur additional costs at a job site since the allowable levels of lead in dust has been decreased. This could lead to slightly longer cleanup times and the increase of cleaning product use. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an **agency**):

Incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (i.e., quantity of lead per unit of surface area) to below the action levels. In some instances, floors may have to be sealed, overlaid, or replaced, or window sills sealed or repainted. Additional costs may result from the retesting of lead dust levels. Because of the lower laboratory reporting limits necessary for testing lead dust levels under this rule, incremental laboratory test costs are likely to increase. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, and the amount of disturbed lead in the renovated area.

F. Compliance costs for affected persons:

Incremental costs can be incurred for specialized cleaning used to reduce dust-lead loadings (i.e., quantity of lead per unit of surface area) to below the action levels. In some instances, floors may have to be sealed, overlaid, or replaced, or window sills sealed or repainted. Additional costs may result from the retesting of lead dust levels. Because of the lower laboratory reporting limits necessary for testing lead dust levels under this rule, incremental laboratory test costs are likely to increase. It is difficult to estimate an exact cost increase since there are many variables involved such as: square footage of the renovation, levels of lead that exist on-site, the amount of disturbed lead, or the ease of vacuuming, mopping, or wiping up the renovated area.

6. Regulatory Impact Summary Table

Enter the cost or savings in the relevant cell. If there is no cost or savings, enter, "\$0." If a cost or savings is inestimable, enter, "inestimable."

Fiscal Cost	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$	\$	\$	\$	\$
Local Governments	\$	\$	\$	\$	\$
Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Non-Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Other Persons	inestimable	inestimable	inestimable	inestimable	inestimable
Total Fiscal Cost	inestimable	inestimable	inestimable	inestimable	inestimable
Fiscal Benefits	FY2027	FY2028	FY2029	FY2030	FY2031
State Budget	\$	\$	\$	\$	\$
Local Governments	\$	\$	\$	\$	\$
Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Non-Small Businesses	inestimable	inestimable	inestimable	inestimable	inestimable
Other Persons	inestimable	inestimable	inestimable	inestimable	inestimable
Total Fiscal Benefits	inestimable	inestimable	inestimable	inestimable	inestimable
Net Fiscal Benefits	inestimable	inestimable	inestimable	inestimable	inestimable

7. Regulatory Impact Analysis Approval

The Commissioner of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

8. Family Impact Information

A. The agency has considered this rule's impact on family health, stability, and formation: ☒

B. Summary of reasonable alternatives or modifications:

9. Citation Information

Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-2-104(1)(i)	40 CFR 745	

10. Incorporation by Reference Information

Incorporation by Reference (if this rule incorporates more than two items by reference, please include additional tables):

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

B. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*):

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

11. Public Notice Information

The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:

08/14/2026

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.):

Date:	Time (hh:mm AM/PM):	Place (physical address or URL):
08/07/2026	11:00 AM - 12:00 PM	A public hearing is set for August 7, 2026. Further details may be found below. The hearing will be cancelled should no request for one be made by August 5, 2026, at 10 AM MT. The final status of the public hearing will be posted on August 5, 2026, after 10 AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule. https://deq.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment Interested Persons can participate in person or electronically, via the internet. In Person: MASOB 195 N. 1950 W. Salt Lake City, UT, 84116, First Floor, Air Quality Board Room Virtual Attendance: Time zone: America/Denver Google Meet joining info: Video call link: https://meet.google.com/eeek-zssw-vot Or dial: (US) +1 470-466-0225 PIN: 970 645 005#

To the agency: If more than one hearing is planned to take place, continue to add rows.

12. Effective Date Information

This rule change MAY become effective on:

(NOTE: This is the date the agency anticipates making the filing effective. It is NOT the effective date)

10/07/2026

13. Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 63G-3-302, 63G-3-303, and 63G-3-402. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin* and delaying the first possible effective date.

Agency head or designee and title:	Bryce C. Bird, Director, Division of Air Quality	Date:	06/12/2026
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1 **R307. Environmental Quality, Air Quality.**

2 **R307-842. Lead-Based Paint Activities.**

3 **R307-842-1. Accreditation of Training Programs: Target Housing and Child-Occupied Facilities.**

4 (1) Scope.

5 (a) A training program may seek accreditation to offer courses in any of the following
6 disciplines: inspector, risk assessor, supervisor, project designer, abatement worker, renovator, and dust
7 sampling technician. A training program may also seek accreditation to offer refresher courses for each
8 of the above listed disciplines. Training courses taught in Utah must be accredited by the director. All e-
9 learning renovator refresher courses originating from companies based in Utah must also be accredited by
10 the director.

11 (b) Training programs may apply to the director for accreditation of their lead-based paint
12 activities courses or refresher courses pursuant to this section. Training programs may apply to the
13 director for accreditation of their renovator or dust sampling technician courses or refresher courses
14 pursuant to this section.

15 (c) Initial and refresher courses shall be specific to each discipline and shall be conducted as
16 separate and distinct courses and not combined with any other training during the period of the course.

17 (d) A training program must not provide, offer, or claim to provide director-accredited lead-
18 based paint activities courses without applying for and receiving accreditation from the director as
19 required under ~~paragraph~~ Subsection R307-842-1(2) ~~of this section~~. A training program must not
20 provide, offer, or claim to provide director-accredited renovator or dust sampling technician courses
21 without applying for and receiving accreditation from the director as required under ~~paragraph~~
22 Subsection R307-842-1(2) ~~of this section~~.

23 (e) Accredited training programs, training program managers, and principal instructors must
24 comply with all of the requirements of this section including approved terms of the application and all the
25 requirements and limitations specified in any accreditation documents issued to training programs.

26 (2) Application process. The following are procedures a training program must follow to receive
27 director accreditation to offer lead-based paint activities courses, renovator courses, or dust sampling
28 technician courses:

29 (a) A training program seeking accreditation shall submit an electronic or a written application to
30 the director containing the following information:

31 (i) The training program's name, address, and telephone number;

32 (ii) A list of courses for which it is applying for accreditation. ~~For the purposes of this section,~~
33 Courses taught in different languages and electronic learning courses are considered different courses, and
34 each must independently meet the accreditation requirements;

35 (iii) The name and documentation of the qualifications of the training program manager;

36 (iv) The ~~name(s)~~ names and documentation of qualifications of any principal ~~instructor(s)~~
37 instructors; and

38 (v) A statement signed by the training program manager certifying that the training program
39 meets the requirements established in ~~paragraph~~ Subsection R307-842-1(3) ~~of this section~~. If a training
40 program uses EPA-recommended model training materials, the training program manager shall include a
41 statement certifying that, as well; or

42 (vi) If a training program does not use EPA-recommended model training materials, its
43 application for accreditation shall also include:

44 (A) A copy of the student and instructor manuals, or other materials to be used for each course;

45 (B) A copy of the course agenda for each course; and

46 (C) ~~When~~ If applying for accreditation of a course in a language other than English, a signed
47 statement from a qualified, independent translator that they had compared the course to the English
48 language version and found the translation to be accurate;

49 (vii) All training programs shall include in their application for accreditation the following:

50 (A) A description of the facilities and equipment to be used for lecture and hands-on training;

51 (B) A copy of the course test blueprint for each course;

(C) A description of the activities and procedures that will be used for conducting the assessment of hands-on skills for each course; and

(D) A copy of the quality control plan as described in ~~paragraph~~ Subsection R307-842-1(3)(i) ~~of this section~~.

(b) If a training program meets the requirements in ~~paragraph~~ Subsection R307-842-1(3) ~~of this section~~, then the director shall approve the application for accreditation no more than 180 days after receiving a complete application from the training program. In the case of approval, a certificate of accreditation shall be sent to the applicant. In the case of disapproval, a letter describing the reasons for disapproval shall be sent to the applicant. Prior to disapproval, the director may, at its discretion, work with the applicant to address inadequacies in the application for accreditation. The director may also request additional materials retained by the training program under ~~paragraph~~ Subsection R307-842-1(8) ~~of this section~~. If a training program's application is disapproved, the program may reapply for accreditation at any time.

(c) A training program may apply for accreditation to offer initial courses or refresher courses in as many disciplines as it chooses. A training program may seek accreditation for additional courses at any time as long as the program can demonstrate that it meets the requirements of this section.

(d) A training program applying for accreditation must submit the appropriate fees in accordance with the current Department of Environmental Quality Fee Schedule.

(3) Requirements for the accreditation of training programs. A training program accredited by the director to offer lead-based paint activities courses, renovator courses, or dust sampling technician courses must meet the following requirements:

(a) The training program shall employ a training manager who has:

(i) At least ~~two~~ **two [2]** years of experience, education, or training in teaching workers or adults; or

(ii) A bachelor's or graduate degree in building construction technology, engineering, industrial hygiene, safety, public health, education, business administration or program management or a related field; or

(iii) Two years of experience in managing a training program specializing in environmental hazards; and

(iv) Demonstrated experience, education, or training in the construction industry including: lead or asbestos abatement, painting, carpentry, renovation, remodeling, occupational safety and health, or industrial hygiene.

(b) The training manager shall designate a qualified principal instructor for each course who has:

(i) Demonstrated experience, education, or training in teaching workers or adults; and

(ii) Successfully completed at least 16 hours of any director-accredited, EPA-accredited, or EPA-authorized state or tribal-accredited lead-specific training for instructors of lead-based paint activities courses or ~~eight~~ **eight [8]** hours of any director-accredited, EPA-accredited, or EPA-authorized state or tribal-accredited lead-specific training for instructors of renovator or dust sampling technician courses; and

(iii) Demonstrated experience, education, or training in lead or asbestos abatement, painting, carpentry, renovation, remodeling, occupational safety and health, or industrial hygiene.

(c) The principal instructor shall be responsible for the organization of the course, course delivery, and oversight of the teaching of all course material. The training manager may designate guest instructors as needed for a portion of the course to provide instruction specific to the lecture, hands-on activities, or work practice components of a course. However, the principal instructor is primarily responsible for teaching the course materials and must be present to provide instruction, ~~for oversight of portions of the course taught by guest instructors,~~ ~~for the course for which the principal instructor~~ ~~he or she~~ has been designated ~~the principal instructor~~.

(d) The following documents shall be recognized by the director as evidence that training managers and principal instructors have the education, work experience, training requirements or demonstrated experience, specifically listed in ~~paragraphs~~ Subsections R307-842-1(3)(a) and R307-842-1(3)(b) ~~of this section~~. This documentation must be submitted with the accreditation application and retained by the training program as required by the recordkeeping requirements contained in ~~paragraph~~ Subsection R307-842-1(8) ~~of this section~~. Those documents include the following:

1 (i) Official academic transcripts or diploma as evidence of meeting the education requirements;
 2 (ii) Resumes, letters of reference, or documentation of work experience, as evidence of meeting
 3 the work experience requirements; and
 4 (iii) Certificates from train-the-trainer courses and lead-specific training courses, as evidence of
 5 meeting the training requirements.
 6 (e) The training program shall ensure the availability of, and provide adequate facilities for, the
 7 delivery of the lecture, course test, hands-on training, and assessment activities. This includes providing
 8 training equipment that reflects current work practices and maintaining or updating the equipment and
 9 facilities as needed.
 10 (f) To become accredited in the following disciplines, the training program shall provide initial
 11 training courses that meet the following training requirements:
 12 (i) The initial inspector course shall last a minimum of 24 training hours, with a minimum of
 13 eight [8] hours devoted to hands-on training activities. The minimum curriculum requirements for the
 14 initial inspector course are contained in [-paragraph] Subsection R307-842-1(4)(a) [-of this section];
 15 (ii) The initial risk assessor course shall last a minimum of 16 training hours, with a minimum of
 16 four [4] hours devoted to hands-on training activities. The minimum curriculum requirements for the
 17 initial risk assessor course are contained in [-paragraph] Subsection R307-842-1(4)(b) [-of this section];
 18 (iii) The initial supervisor course shall last a minimum of 32 training hours, with a minimum of
 19 eight [8] hours devoted to hands-on training activities. The minimum curriculum requirements for the
 20 initial supervisor course are contained in [-paragraph] Subsection R307-842-1(4)(c) [-of this section];
 21 (iv) The initial project designer course shall last a minimum of eight [8] training hours. The
 22 minimum curriculum requirements for the initial project designer course are contained in [-paragraph]
 23 Subsection R307-842-1(4)(d) [-of this section];
 24 (v) The initial abatement worker course shall last a minimum of 16 training hours, with a
 25 minimum of eight [8] hours devoted to hands-on training activities. The minimum curriculum
 26 requirements for the initial abatement worker course are contained in [-paragraph] Subsection R307-842-
 27 1(4)(e) [-of this section];
 28 (vi) The initial renovator course must last a minimum of eight [8] training hours, with a
 29 minimum of two [2] hours devoted to hands-on training activities. The minimum curriculum
 30 requirements for the initial renovator course are contained in [-paragraph] Subsection R307-842-1(4)(f) [-of
 31 this section]; and
 32 (vii) The initial dust sampling technician course must last a minimum of eight [8] training hours,
 33 with a minimum of two [2] hours devoted to hands-on training activities. The minimum curriculum
 34 requirements for the initial dust sampling technician course are contained in [-paragraph] Subsection
 35 R307-842-1(4)(g) [-of this section].
 36 (viii) Electronic learning and other alternative course delivery methods are permitted for the
 37 classroom portion of renovator, dust sampling technician, or lead-based paint activities courses but not the
 38 hands-on portion of these courses, or for final course tests or proficiency tests described in [-paragraph]
 39 Subsection R307-842-1(3)(g) [-of this section]. Electronic learning courses must comply with the
 40 following requirements:
 41 (A) A unique identifier must be assigned to each student for them to use to launch and re-launch
 42 the course;
 43 (B) The training provider must track each student's course log-ins, launches, progress, and
 44 completion, and maintain these records in accordance with [-paragraph] Subsection R307-842-1(8) [-of this
 45 section];
 46 (C) The course must include periodic knowledge checks equivalent to the number and content of
 47 the knowledge checks contained in EPA's model course, but at least 16 over the entire course. The
 48 knowledge checks must be successfully completed before the student can go on to the next module;
 49 (D) There must be a test of at least 20 questions at the end of the electronic learning portion of
 50 the course, of which 80% must be answered correctly by the student for successful completion of the
 51 electronic learning portion of the course. The test must be designed so that students do not receive
 52 feedback on their test answers until after they have completed and submitted the test; and

(E) Each student must be able to save or print a copy of an electronic learning course completion certificate. The electronic certificate must not be susceptible to easy editing.

(g) For each course offered, the training program shall conduct either a course test at the completion of the course, and if applicable, a hands-on skills assessment, or in the alternative, a proficiency test for that discipline. Each student must successfully complete the hands-on skills assessment and receive a passing score on the course test to pass any course, or successfully complete a proficiency test.

(i) The training manager is responsible for maintaining the validity and integrity of the hands-on skills assessment or proficiency test to ensure that it accurately evaluates the trainees' performance of the work practices and procedures associated with the course topics contained in ~~paragraph~~ **Subsection R307-842-1(4)** ~~of this section~~;

(ii) The training manager is responsible for maintaining the validity and integrity of the course test to ensure that it accurately evaluates the trainees' knowledge and retention of the course topics; and

(iii) The course test shall be developed in accordance with the test blueprint submitted with the training accreditation application.

(h) The training program shall issue unique course completion certificates to each individual who passes the training course. The course completion certificate shall include:

(i) The name, a unique identification number, and address of the individual;

(ii) The name of the particular course that the individual completed;

(iii) Dates of course completion **and** ~~test~~ passage;

(iv) For initial inspector, risk assessor, project designer, supervisor, or abatement worker course completion certificates, the expiration date of interim certification, which is **six [6]** months from the date of course completion;

(v) The name, address, and telephone number of the training program;

(vi) The language in which the course was taught;

(vii) For renovator and dust sampling technician course completion certificates, a photograph of the individual. The photograph must be an accurate and recognizable image of the individual. As reproduced on the certificate, the photograph must not be smaller than **one [1]** square inch; and

(viii) For renovator, dust sampling technician, or lead-based paint activities course completion certificates, the expiration date of the training certificate.

(i) The training manager shall develop and implement a quality control plan. The plan shall be used to maintain and improve the quality of the training program over time. This plan shall contain at least the following elements:

(i) Procedures for periodic revision of training materials and the course test to reflect innovations in the field; and

(ii) Procedures for the training manager's annual review of principal instructor competency.

(j) Courses offered by the training program must teach the work practice standards contained in **Sections R307-841-5 or R307-842-3**, as applicable, in such a manner that trainees are provided with the knowledge needed to perform the renovations or lead-based paint activities they will be responsible for conducting.

(k) The training manager shall be responsible for ensuring that the training program complies at all times with all of the requirements in **Section R307-842-1** ~~this section~~.

(l) The training manager shall allow the director or the director's authorized representative to audit the training program to verify the contents of the application for accreditation as described in ~~paragraph~~ **Section R307-842-1(2)** ~~of this section~~.

(m) The training manager must provide notification of renovator, dust sampling technician, or lead-based paint activities courses offered.

(i) The training manager must provide the director with notification of all renovator, dust sampling technician, or lead-based paint activities courses offered except for any renovator course without hands-on training delivered via electronic learning. The original notification must be received by the director at least **seven [7]** business days prior to the start date of any renovator, dust sampling technician, or lead-based paint activities course;

(ii) The training manager must provide the director updated notification ~~when~~ if renovator, dust sampling technician, or lead-based paint activities courses will begin on a date other than the start date specified in the original notification, as follows:

(A) For renovator, dust sampling technician, or lead-based paint activities courses beginning prior to the start date provided to the director, an updated notification must be received by the director at least ~~seven~~ [7] business days before the new start date; and

(B) For renovator, dust sampling technician, or lead-based paint activities courses beginning after the start date provided to the director, an updated notification must be received by the director at least ~~two~~ [2] business days before the start date provided to the director;

(iii) The training manager must update the director of any change in location of renovator, dust sampling technician, or lead-based paint activities courses at least ~~seven~~ [7] business days prior to the start date provided to the director;

(iv) The training manager must update the director regarding any course cancellations, or any other change to the original notification. Updated notifications must be received by the director at least ~~two~~ [2] business days prior to the start date provided to the director;

(v) Each notification, including updates, must include the following:

(A) Notification type ~~such as~~ [(~~f~~) original, update, or cancellation (~~g~~)];

(B) Training program name, address, and telephone number;

(C) Course discipline, type, ~~such as initial or refresher~~ [(initial/refresher)], and the language in which instruction will be given;

(D) ~~Dates~~ [Date(s)] and ~~times~~ [time(s)] of training;

(E) Training ~~locations~~, [location(s)] telephone number, and address;

(F) Principal instructor's name; and

(G) Training manager's name and signature;

(vi) Notification ~~of renovator, dust sampling technician, or lead-based paint activities course schedules must be submitted electronically or written, using the forms provided by the Utah Division of Air Quality. [must be accomplished using any of the following methods: Written notification, or electronically using the Utah Division of Air Quality electronic notification system. Written notification of renovator, dust sampling technician, or lead-based paint activities course schedules can be accomplished by using either the sample form titled "Renovator, Dust Sampling Technician, or Lead-Based Paint Activities Training Course Notification Form" or a similar form containing the information required in paragraph (3)(m)(v) of this section. All written notifications must be delivered to the director by United States Postal Service, fax, commercial delivery service, hand delivery, or by email. Instructions and sample forms can be obtained from the Utah Division of Air Quality Lead-Based Paint Program web site;]~~

(vii) Renovator, dust sampling technician, or lead-based paint activities courses must not begin on a date, or at a location other than that specified in the original notification unless an updated notification identifying a new start date or location is submitted, in which case the course must begin on the new start date ~~and~~ or location specified in the updated notification; and

(viii) No training program shall provide renovator, dust sampling technician, or lead-based paint activities courses without first notifying the director of such activities in accordance with the requirements of ~~Subsection R307-842-1(3)(m)~~ [this paragraph].

(n) The training manager must provide notification following completion of renovator, dust sampling technician, or lead-based paint activities courses.

(i) The training manager must provide the director notification after the completion of any renovator, dust sampling technician, or lead-based paint activities course. This notification must be received by the director no later than ~~ten~~ [40] business days following course completion. Notification[s] for any e-learning renovator refresher course that does not include hands-on training must be submitted ~~[via written notification or electronically]~~ electronically or written, using the forms provided by the Utah Division of Air Quality, ~~[using the Utah Division of Air Quality electronic notification system]~~ no later than the 10th day of the month and include all students trained in the previous month. ~~[Written notification for any e-learning renovator refresher course, can be accomplished by using either the sample~~

1 form titled "Renovator, Dust Sampling Technician, or Lead-Based Paint Activities Training Course
2 Notification Form" or a similar form containing the information required in paragraph (3)(n)(ii) of this
3 section. All written notifications must be delivered to the director by United States Postal Service, fax,
4 commercial delivery service, hand delivery, or by email. Instructions and sample forms can be obtained
5 from the Utah Division of Air Quality Lead-Based Paint Program web site;]

6 (ii) The notification must include the following:

7 (A) Training program name, address, and telephone number;

8 (B) Course discipline and type such as initial or refresher [(initial/refresher)];

9 (C) Dates [Date(s)] of training;

10 (D) The following information for each student who took the course:

11 (I) Name,

12 (II) Address,

13 (III) Date of birth,

14 (IV) Course completion certificate number,

15 (V) Course test score,

16 (VI) For renovator or dust sampling technician courses, a digital photograph of the student, and

17 (VII) For renovator refresher courses, the expiration date of the training certificate;

18 (E) Training manager's name and signature; and

19 (F) Utah Division of Air Quality Lead-Based Paint Program training verification statement.

20 (iii) Notification of renovator, dust sampling technician or lead-based paint activities course
21 schedules must be submitted electronically or written, using the forms provided by the Utah Division of
22 Air Quality. [must be accomplished using any of the following methods: Written notification, or
23 electronically using the Utah Division of Air Quality electronic notification system. Written notification
24 following renovator, dust sampling technician, or lead-based paint activities training courses can be
25 accomplished by using either the sample form titled "Renovator, Dust Sampling Technician, or Lead-
26 Based Paint Activities Training Course Notification Form" or a similar form containing the information
27 required in paragraph (3)(n)(ii) of this section. All written notifications must be delivered to the director
28 by United States Postal Service, fax, commercial delivery service, hand delivery, or by email.
29 Instructions and sample forms can be obtained from the Utah Division of Air Quality Lead-Based Paint
30 Program web site.]

31 (4) Minimum training curriculum requirements. A training program accredited by the director to
32 offer lead-based paint courses in the specific disciplines listed in [paragraph] Subsection R307-842-1(4)
33 must ensure that its courses of study include, at a minimum, the following course topics.

34 (a) Inspector. Instruction in the topics described in [paragraphs] Subsections R307-842-
35 1(4)(a)(iv), R307-842-1(4)(a)(v), R307-842-1(4)(a)(vi), and R307-842-1(4)(a)(vii) [of this section] must
36 be included in the hands-on portion of the course.

37 (i) Role and responsibilities of an inspector;

38 (ii) Background information on lead and its adverse health effects;

39 (iii) Background information on federal, state, and local regulations and guidance that pertains to
40 lead-based paint and lead-based paint activities;

41 (iv) Lead-based paint inspection methods, including selection of rooms and components for
42 sampling or testing;

43 (v) Paint, dust, and soil sampling methodologies;

44 (vi) [Clearance standards] Action levels and testing, including random sampling;

45 (vii) Preparation of the final inspection report; and

46 (viii) Recordkeeping.

47 (b) Risk assessor. Instruction in the topics described in [paragraphs] Subsections R307-842-
48 1(4)(b)(iv), R307-842-1(4)(b)(vi), and R307-842-1(4)(b)(vii) [of this section] must be included in the
49 hands-on portion of the course.

50 (i) Role and responsibilities of a risk assessor;

51 (ii) Collection of background information to perform a risk assessment;

(iii) Sources of environmental lead contamination such as paint, surface dust and soil, water, air, packaging, and food;

(iv) Visual inspection for the purposes of identifying potential sources of lead-based paint hazards;

(v) Lead hazard screen protocol;

(vi) Sampling for other sources of lead exposure;

(vii) Interpretation of lead-based paint and other lead sampling results, including all applicable federal or state guidance or regulations pertaining to lead-based paint hazards;

(viii) Development of hazard control options, the role of interim controls, and operations and maintenance activities to reduce lead-based paint hazards; and

(ix) Preparation of a final risk assessment report.

(c) Supervisor. Instruction in the topics described in ~~paragraphs~~ Subsections R307-842-1(4)(c)(v), R307-842-1(4)(c)(vii), R307-842-1(4)(c)(viii), R307-842-1(4)(c)(ix), and R307-842-1(4)(c)(x) ~~of this section~~ must be included in the hands-on portion of the course.

(i) Role and responsibilities of a supervisor;

(ii) Background information on lead and its adverse health effects;

(iii) Background information on federal, state, and local regulations and guidance that pertain to lead-based paint abatement;

(iv) Liability and insurance issues relating to lead-based paint abatement;

(v) Risk assessment and inspection report interpretation;

(vi) Development and implementation of an occupant protection plan and abatement report;

(vii) Lead-based paint hazard recognition and control;

(viii) Lead-based paint abatement and lead-based paint hazard reduction methods, including restricted practices;

(ix) Interior dust abatement ~~and [f]~~ cleanup or lead-based paint hazard control and reduction methods;

(x) Soil and exterior dust abatement or lead-based paint hazard control and reduction methods;

(xi) ~~Clearance standards~~ Action levels;

(xii) Cleanup and waste disposal; and

(xiii) Recordkeeping.

(d) Project designer.

(i) Role and responsibilities of a project designer;

(ii) Development and implementation of an occupant protection plan for large-scale abatement projects;

(iii) Lead-based paint abatement and lead-based paint hazard reduction methods, including restricted practices for large-scale abatement projects;

(iv) Interior dust abatement ~~and [f]~~ cleanup or lead hazard control and reduction methods for large-scale abatement projects;

(v) ~~Clearance standards~~ Action levels and testing for large scale abatement projects; and

(vi) Integration of lead-based paint abatement methods with modernization and rehabilitation projects for large scale abatement projects.

(e) Abatement worker. Instruction in the topics described in ~~paragraphs~~ Subsections R307-842-1(4)(e)(iv), R307-842-1(4)(e)(v), R307-842-1(4)(e)(vi), and R307-842-1(4)(e)(vii) ~~of this section~~ must be included in the hands-on portion of the course.

(i) Role and responsibilities of an abatement worker;

(ii) Background information on lead and its adverse health effects;

(iii) Background information on federal, state, and local regulations and guidance that pertain to lead-based paint abatement;

(iv) Lead-based paint hazard recognition and control;

(v) Lead-based paint abatement and lead-based paint hazard reduction methods, including restricted practices;

(vi) Interior dust abatement methods ~~and [f]~~ cleanup or lead-based paint hazard reduction; and

(vii) Soil and exterior dust abatement methods or lead-based paint hazard reduction.

(f) Renovator. Instruction in the topics described in ~~paragraphs~~ Subsections R307-842-1(4)(f)(iv), R307-842-1(4)(f)(vi), R307-842-1(4)(f)(vii), and R307-842-1(4)(f)(viii) ~~of this section~~ must be included in the hands-on portion of the course.

- (i) Role and responsibility of a renovator;
- (ii) Background information on lead and its adverse health effects;
- (iii) Background information on EPA, HUD, OSHA, and other federal, state, and local regulations and guidance that pertains to lead-based paint and renovation activities;
- (iv) Procedures for using acceptable test kits to determine whether paint is lead-based paint;
- (v) Procedures for collecting a paint chip sample and sending it to a laboratory recognized by EPA under section 405(b) of TSCA;
- (vi) Renovation methods to minimize the creation of dust and lead-based paint hazards;
- (vii) Interior and exterior containment and cleanup methods;
- (viii) Methods to ensure that the renovation has been properly completed, including cleaning verification, and clearance testing;
- (ix) Waste handling and disposal;
- (x) Providing on-the-job training to other workers; and
- (xi) Record preparation.

(g) Dust sampling technician. Instruction in the topics described in ~~paragraphs~~ Subsections R307-842-1(4)(g)(iv) and R307-842-1(4)(g)(vi) ~~of this section~~ must be included in the hands-on portion of the course.

- (i) Role and responsibility of a dust sampling technician;
- (ii) Background information on lead and its adverse health effects;
- (iii) Background information on federal, state, and local regulations and guidance that pertains to lead-based paint and renovation activities;
- (iv) Dust sampling methodologies;
- (v) ~~Clearance standards~~ Action levels and testing; and
- (vi) Report preparation.

(5) Requirements for the accreditation of refresher training programs. A training program may seek accreditation to offer refresher training courses in any of the following disciplines: Inspector, risk assessor, supervisor, project designer, abatement worker, renovator, and dust sampling technician. A training program accredited by the director to offer refresher training must meet the following minimum requirements:

- (a) Each refresher course shall review the curriculum topics of the full-length courses listed under ~~paragraph~~ Subsection R307-842-1(4) ~~of this section~~, as appropriate. In addition, to become accredited to offer refresher training courses, training programs shall ensure that their courses of study include, at a minimum, the following:
 - (i) An overview of current safety practices relating to lead-based paint in general, as well as specific information pertaining to the appropriate discipline;
 - (ii) Current laws and regulations relating to lead-based paint in general, as well as specific information pertaining to the appropriate discipline; and
 - (iii) Current technologies relating to lead-based paint in general, as well as specific information pertaining to the appropriate discipline;
- (b) Refresher courses for inspector, risk assessor, supervisor, and abatement worker must last a minimum of eight [8] training hours. Refresher courses for project designer, renovator, and dust sampling technician must last a minimum of four [4] training hours. Refresher courses for all disciplines except renovator and project designer must include a hands-on component. Renovators must take a refresher course that includes hands-on training at least every other re-certification;
- (c) For any course offered, ~~E~~except for e-learning renovator refresher courses and project designer courses, ~~for all other courses offered,~~ the training program shall conduct a hands-on assessment. With the exception of project designer courses, the training program shall conduct a course

1 test at the completion of the course. Renovators must take a refresher course that includes hands-on
2 training at least every other re-certification;

3 (d) A training program may apply for accreditation of a refresher course concurrently with its
4 application for accreditation of the corresponding initial training course as described in ~~paragraph~~
5 ~~Subsection R307-842-1(2)~~~~[of this section]~~. If so, the director shall use the approval procedure described
6 in ~~paragraph~~ Subsection R307-842-1(2)~~[of this section]~~. In addition, the minimum requirements
7 contained in ~~paragraphs~~ Subsections R307-842-1(3)(a) through R307-842-1(3)(e), Subsection R307-
8 842-1(3)(f)(viii), ~~and~~ Subsections R307-842-1(3)(g) through R307-842-1(3)(n), and Subsections R307-
9 842-1(5)(a) through R307-842-1(5)(c)~~[of this section]~~ shall also apply; and

10 (e) A training program seeking accreditation to offer refresher training courses only shall submit
11 a written application to the director containing the following information:

12 (i) The refresher training program's name, address, and telephone number;

13 (ii) A list of courses for which it is applying for accreditation;

14 (iii) The name and documentation of the qualifications of the training program manager;

15 (iv) The ~~names~~ ~~[name(s)]~~ and documentation of the qualifications of the principal ~~instructors~~
16 ~~[instructor(s)]~~;

17 (v) A statement signed by the training program manager certifying that the refresher training
18 program meets the minimum requirements established in ~~paragraph~~ Subsection R307-842-1(3)~~[of this~~
19 ~~section]~~, except for the requirements in ~~paragraph~~ Subsection R307-842-1(3)(f)~~[of this section]~~. If a
20 training program uses EPA-developed model training materials, the training manager shall include a
21 statement certifying that, as well;

22 (vi) If the refresher training course materials are not based on EPA-developed model training
23 materials, the training program's application for accreditation shall include:

24 (A) A copy of the student and instructor manuals to be used for each course; and

25 (B) A copy of the course agenda for each course;

26 (vii) All refresher training programs shall include in their application for accreditation the
27 following:

28 (A) A description of the facilities and equipment to be used for lecture and hands-on training;

29 (B) A copy of the course test blueprint for each course;

30 (C) A description of the activities and procedures that will be used for conducting the assessment
31 of hands-on skills for each course, ~~[if applicable]~~; and

32 (D) A copy of the quality control plan as described in ~~paragraph~~ Subsection R307-842-1(3)(i)~~[~~
33 ~~of this section]~~;

34 (viii) The requirements in ~~paragraphs~~ Subsections R307-842-1(3)(a) through R307-842-1(3)(e),
35 Subsection R307-842-1(3)(f)(viii), and Subsections R307-842-1(3)(g) through R307-842-1(3)(n)~~[of this~~
36 ~~section]~~ apply to refresher training providers; and

37 (ix) If a refresher training program meets the requirements listed in Subsection R307-842-
38 1(5)(e)~~[this paragraph]~~, then the director shall approve the application for accreditation no more than 180
39 days after receiving a complete application from the refresher training program. In the case of approval, a
40 certificate of accreditation shall be sent to the applicant. In the case of disapproval, a letter describing the
41 reasons for disapproval shall be sent to the applicant. Prior to disapproval, the director may, at the
42 director's discretion, work with the applicant to address inadequacies in the application for accreditation.
43 The director may also request additional materials retained by the refresher training program under
44 ~~paragraph~~ Subsection R307-842-1(8)~~[of this section]~~. If a refresher training program's application is
45 disapproved, the program may reapply for accreditation at any time.

46 (6) Re-accreditation of training programs.

47 (a) Unless re-accredited, a training program's accreditation, including refresher training
48 accreditation, shall expire ~~four~~ ~~[4]~~ years after the date of issuance. If a training program meets the
49 requirements ~~[of this section]~~, the training program shall be re-accredited.

50 (b) A training program seeking re-accreditation shall submit an application to the director no
51 later than 180 days before its accreditation expires. If a training program does not submit its application

for re-accreditation by that date, the director cannot guarantee that the program will be re-accredited before the end of the accreditation period.

(c) The training program's application for re-accreditation shall contain:

(i) The training program's name, address, and telephone number;

(ii) A list of courses for which it is applying for re-accreditation;

(iii) The name and qualifications of the training program manager;

(iv) The ~~names~~ ~~name(s)~~ and qualifications of the principal ~~instructors~~ ~~instructor(s)~~;

(v) A description of any changes to the training facility, equipment, or course materials since its last application was approved that ~~adversely~~ affects the students' ability to learn;

(vi) A statement signed by the program manager stating:

(A) That the training program complies at all times with all requirements in ~~paragraphs~~ ~~Subsections R307-842-1(3) and R307-842-1(5)~~ ~~of this section~~, as applicable; and

(B) The recordkeeping and reporting requirements of ~~paragraph~~ ~~Subsection R307-842-1(8)~~ ~~of this section~~ shall be followed; and

(vii) A payment of appropriate fees in accordance with the current Department of Environmental Quality Fee Schedule.

(d) Upon request, the training program shall allow the director or the director's authorized representative to audit the training program to verify the contents of the application for re-accreditation as described in ~~paragraph~~ ~~Subsection R307-842-1(6)(c)~~ ~~of this section~~.

(7) Suspension, revocation, and modification of accredited training programs.

(a) The director may, after notice and an opportunity ~~for~~ for hearing, suspend, revoke, or modify training program accreditation, including refresher training accreditation, if a training program, training manager, or other person with supervisory authority over the training program has:

(i) Misrepresented the contents of a training course to the director ~~and~~ or the student population;

(ii) Failed to submit required information or notifications in a timely manner;

(iii) Failed to maintain required records;

(iv) Falsified accreditation records, instructor qualifications, or other accreditation-related information or documentation;

(v) Failed to comply with the training standards and requirements in this section;

(vi) Failed to comply with federal, state, or local lead-based paint statutes or regulations; or

(vii) Made false or misleading statements to the director in its application for accreditation or re-accreditation which the director relied upon in approving the application.

(b) In addition to an administrative or judicial finding of violation, execution of a consent agreement in settlement of an enforcement action constitutes ~~for purposes of this section,~~ evidence of a failure to comply with relevant statutes or regulations.

(8) Training program recordkeeping requirements.

(a) Accredited training programs shall maintain, and make available to the director or the director's authorized representative, upon request, the following records:

(i) All documents specified in ~~paragraph~~ ~~Subsection R307-842-1(3)(d)~~ ~~of this section~~ that demonstrate the qualifications listed in ~~paragraphs~~ ~~Subsections R307-842-1(3)(a) and R307-842-1(3)(b)~~ ~~of this section~~ of the training manager and principal instructors;

(ii) Current curriculum ~~and~~ ~~and~~ course materials and documents reflecting any changes made to these materials;

(iii) The course test blueprint;

(iv) Information regarding how the hands-on assessment is conducted including, but not limited

to:

(A) Who conducts the assessment;

(B) How the skills are graded;

(C) What facilities are used; and

(D) The pass ~~and~~ ~~and~~ fail rate;

(v) The quality control plan as described in ~~paragraph~~ Subsection R307-842-1(3)(i) ~~of this section~~;

(vi) Results of the students' hands-on skills assessments and course tests, and a record of each student's course completion certificate;

(vii) Any other material not listed in ~~paragraphs~~ Subsections R307-842-1(8)(a)(i) through R307-842-1(8)(a)(vi) ~~of this section~~ that was submitted to the director as part of the program's application for accreditation.

(viii) For renovator refresher and dust sampling technician refresher courses, a copy of each trainee's prior course completion certificate showing that each trainee was eligible to take the refresher course; and

(ix) For course modules delivered in an electronic format, a record of each student's log-ins, launches, progress, and completion, and a copy of the electronic learning completion certificate for each student.

(b) The training program must retain records pertaining to renovator, dust sampling technician, and lead-based paint activities courses at the address specified on the training program accreditation application, ~~for~~ as modified in accordance with ~~paragraph~~ Subsection R307-842-1(8)(c) ~~of this section~~ for the following minimum periods:

(i) Records pertaining to lead-based paint activities courses must be retained for a minimum of ~~three~~ ~~3~~ years and ~~six~~ ~~6~~ months;

(ii) Records pertaining to renovator or dust sampling technician courses offered must be retained for a minimum of ~~five~~ ~~5~~ years and ~~six~~ ~~6~~ months.

(c) The training program shall notify the director in writing within 30 days of changing the address specified on its training program accreditation application or transferring the records from that address.

(9) Amendment of accreditation.

(a) A training program must amend its accreditation within 90 days of the date a change occurs to information included in the program's most recent application. If the training program fails to amend its accreditation within 90 days of the date the change occurs, the program may not provide renovator, dust sampling technician, or lead-based paint activities training until its accreditation is amended.

(b) To amend an accreditation, a training program must submit a completed Division of Air Quality Lead-Based Paint Application for Course Accreditation, signed by an authorized agent of the training provider, noting on the form that it is submitted as an amendment and indicating the information that has changed.

(c) Training managers, principal instructors, permanent training locations. If the amendment includes a new training program manager, any new or additional principal ~~instructors~~ ~~instructor(s)~~, or any new permanent training ~~locations~~ ~~location(s)~~, the training provider is not permitted to provide training under the new training manager or offer courses taught by any new principal ~~instructors~~ ~~instructor(s)~~ or at the new training ~~locations~~ ~~location(s)~~ until the director either approves the amendment or 30 days have elapsed, whichever occurs earlier. Except:

(i) If the amendment includes a new training program manager or new or additional principal instructor that was identified in a training provider accreditation application that the director has already approved ~~under this section~~, the training provider may begin to provide training under the new training manager or offer courses taught by the new principal instructor on an interim basis as soon as the provider submits the amendment to the director. The training provider may continue to provide training under the new training manager or offer courses taught by the new principal instructor if the director approves the amendment or if the director does not disapprove the amendment within 30 days.

(ii) If the amendment includes a new permanent training location, the training provider may begin to provide training at the new permanent training location on an interim basis as soon as the provider submits the amendment to the director. The training provider may continue to provide training at the new permanent training location if the director approves the amendment or if the director does not disapprove the amendment within 30 days.

1 **R307-842-2. Certification of Individuals and Firms Engaged in Lead-Based Paint Activities:**
2 **Target Housing and Child-Occupied Facilities.**

3 (1) Certification of individuals.

4 (a) Individuals seeking certification by the director to engage in lead-based paint activities must
5 either:

6 (i) Submit to the director an application demonstrating that they meet the requirements
7 established in ~~paragraphs~~ Subsections R307-842-2(2) or R307-842-2(3) ~~of this section~~ for the
8 particular discipline for which certification is sought; or

9 (ii) Submit to the director an application with a copy of a valid lead-based paint activities
10 certification ~~[(4) or equivalent (3)]~~ from the EPA or a state or tribal program that has been authorized by EPA
11 pursuant to ~~[(4)]~~ Subpart Q of 40 CFR 745; or

12 (iii) For supervisor, inspector, ~~and/~~ or risk assessor certification, submit to the director an
13 application with a copy of a valid lead-based paint training certificate from an EPA-accredited, or EPA-
14 authorized state or tribal-accredited lead-specific training in the appropriate discipline and pass the
15 certification exam in the appropriate discipline offered by the director.

16 (b) Following the submission of an application demonstrating that all the requirements of ~~this~~
17 ~~section~~ Section R307-842-2 have been met, the director shall certify an applicant as an inspector, risk
18 assessor, supervisor, project designer, or abatement worker, as appropriate.

19 (c) Upon receiving director certification, individuals conducting lead-based paint activities shall
20 comply with the work practice standards for performing the appropriate lead-based paint activities as
21 established in Section R307-842-3.

22 (d) It shall be a violation of state administrative rules for an individual to conduct any of the
23 lead-based paint activities described in Section R307-842-3 if that individual has not been certified by the
24 director ~~pursuant to this section~~ to do so.

25 (e) Individuals applying for certification must submit the appropriate fees in accordance with the
26 current Department of Environmental Quality Fee Schedule.

27 (2) Inspector, risk assessor, or supervisor.

28 (a) To become certified by the director as an inspector, risk assessor, or supervisor, pursuant to ~~[(1)]~~
29 ~~paragraph~~ Subsection R307-842-2(1)(a)(i) ~~of this section~~, an individual must:

30 (i) Successfully complete an accredited initial training course in the appropriate discipline and
31 receive a course completion certificate from an accredited training program;

32 (ii) Pass the certification exam in the appropriate discipline offered by the director; and

33 (iii) Meet or exceed the following experience ~~and/~~ or education requirements:

34 (A) Inspectors. No additional experience ~~and/~~ or education requirements;

35 (B) Risk assessors.

36 (I) Successful completion of an accredited initial training course for inspectors; and

37 (II) Bachelor's degree and ~~one~~ ~~[(1)]~~ year of experience in a related field ~~such as [(e.g.,)]~~ lead,
38 asbestos, environmental remediation work, or construction ~~[(1)]~~, or an Associates degree and ~~two~~ ~~[(2)]~~ years
39 experience in a related field ~~such as [(e.g.,)]~~ lead, asbestos, environmental remediation work, or
40 construction ~~[(1)]~~; or

41 (III) Certification as an industrial hygienist, professional engineer, registered architect ~~and/~~ or
42 certification in a related engineering, ~~[(1)]~~ health, or ~~[(1)]~~ environmental field ~~such as [(e.g.,)]~~ safety
43 professional ~~[(1)]~~ or environmental scientist ~~[(1)]~~; or

44 (IV) A high school diploma ~~[(1)]~~ or equivalent ~~[(1)]~~, and at least ~~three~~ ~~[(3)]~~ years of experience in a
45 related field ~~such as [(e.g.,)]~~ lead, asbestos, environmental remediation work, or construction ~~[(1)]~~;

46 (C) Supervisor.

47 (I) One year of experience as a certified lead-based paint abatement worker; or

48 (II) At least ~~two~~ ~~[(2)]~~ years of experience in a related field ~~such as [(e.g.,)]~~ lead, asbestos, or
49 environmental remediation work ~~[(1)]~~ or in the building trades.

50 (b) The following documents shall be recognized by the director as evidence of meeting the
51 requirements listed in ~~[(2)(b)(iii)]~~ of this paragraph:

52 (i) Official academic transcripts or diploma, as evidence of meeting the education requirements;

(ii) Resumes, letters of reference, or documentation of work experience, as evidence of meeting the work experience requirements; and

(iii) Course completion certificates from lead-specific or other related training courses, issued by accredited training programs, as evidence of meeting the training requirements.

(c) In order to take the certification examination for a particular discipline an individual must:

(i) Successfully complete an accredited initial training course in the appropriate discipline and receive a course completion certificate from an accredited training program; and

(ii) Meet or exceed the education ~~and/~~ or experience requirements ~~in paragraph (2)(a)(iii) of this section~~.

(d) The initial training course completion certificate shall serve as interim certification for an individual until the next available opportunity to take the certification exam. Such interim certification shall expire ~~six [6]~~ months after issuance.

(e) After passing the appropriate certification exam and submitting an application demonstrating that ~~an individual [he/she]~~ meets the appropriate training, education, ~~and/~~ or experience prerequisites described in ~~paragraph Subsection R307-842-2(2)(a) of this section~~, an individual shall be issued a certificate by the director. To maintain certification, an individual must be re-certified as described in ~~paragraph Subsection R307-842-2(4) of this section~~.

(f) An individual may take the certification exam no more than three times within ~~six [6]~~ months of receiving an initial training course completion certificate.

(g) If an individual does not pass the certification exam and receive a certificate within ~~six [6]~~ months of receiving ~~an [his/her]~~ initial training course completion certificate, the individual must retake the appropriate initial training course from an accredited training program before reapplying for certification from the director.

(3) Abatement worker and project designer.

(a) To become certified by the director as an abatement worker or project designer, ~~pursuant to paragraph (1)(a)(i) of this section,~~ an individual must:

(i) Successfully complete an accredited initial training course in the appropriate discipline and receive a course completion certificate from an accredited training program; and

(ii) Meet or exceed the following additional experience ~~and/~~ or education requirements:

(A) Abatement workers. No additional experience ~~and/~~ or education requirements; and

(B) Project designers.

(I) Successful completion of an accredited initial training course for supervisors;

(II) Bachelor's degree in engineering, architecture, or a related profession, and ~~one [1]~~ year of experience in building construction and design or a related field; or

(III) Four years of experience in building construction and design or a related field.

(b) The following documents shall be recognized by the director as evidence of meeting the requirements listed in this paragraph:

(i) Official academic transcripts or diploma, as evidence of meeting the education requirements;

(ii) Resumes, letters of reference, or documentation of work experience, as evidence of meeting the work experience requirements; and

(iii) Course completion certificates from lead-specific or other related training courses, issued by accredited training programs, as evidence of meeting the training requirements.

(c) The initial training course completion certificate shall serve as an interim certification until certification from the director is received, but shall be valid for no more than ~~six [6]~~ months from the date of completion.

(d) After successfully completing the appropriate initial training courses and meeting any other qualifications described in ~~paragraph Subsection R307-842-2(3)(a) of this section~~, an individual shall be issued a certificate from the director. To maintain certification, an individual must be re-certified as described in ~~paragraph Subsection R307-842-2(4) of this section~~.

(4) Re-certification.

(a) To maintain certification in a particular discipline, a certified individual shall apply to and be re-certified by the director in that discipline by the director either:

1 (i) Every ~~three~~ [3] years if the individual completed a training course with a course test and
2 hands-on assessment; or

3 (ii) Every ~~five~~ [5] years if the individual completed a training course with a proficiency test.

4 (b) An individual shall be re-certified if the individual successfully completes the appropriate
5 accredited refresher training course and submits a valid copy of the appropriate refresher training course
6 completion certificate. For the supervisor, inspector, or risk assessor disciplines, if more than ~~three~~ [3]
7 years but less than ~~four~~ [4] years have passed since certification or re-certification for an individual that
8 completed an initial or a refresher training course with a course test and hands-on assessment, or if more
9 than ~~five~~ [5] years but less than ~~six~~ [6] years have passed since certification or re-certification for an
10 individual that completed an initial or a refresher training course with a proficiency test, then the
11 individual must also pass the certification exam in the appropriate discipline offered by the director.
12 During the time period when the individual is not certified by the director, that individual cannot perform
13 any regulated work activities that requires individual certification.

14 (c) Individuals applying for re-certification must submit the appropriate fees in accordance with
15 the current Department of Environmental Quality Fee Schedule.

16 (5) Certification of firms.

17 (a) All firms which perform or offer to perform any of the lead-based paint activities or
18 renovations described in ~~Section~~ R307-842-3 shall be certified by the director.

19 (b) A firm seeking certification shall submit to the director a letter attesting that the firm shall
20 only employ appropriately certified employees to conduct lead-based paint activities, and that the firm
21 and its employees shall follow the work practice standards in ~~Section~~ R307-842-3 for conducting lead-
22 based paint activities.

23 (c) From the date of receiving the firm's letter requesting certification, the director shall have 90
24 days to approve or disapprove the firm's request for certification. Within that time, the director shall
25 respond with either a certificate of approval or a letter describing the reasons for disapproval.

26 (d) The firm shall maintain all records pursuant to the requirements in ~~Section~~ R307-842-3.

27 (e) Firms may apply to the director for certification to engage in lead-based paint activities [
28 ~~pursuant to this section~~].

29 (f) Firms applying for certification or re-certification must submit the appropriate fees in
30 accordance with the current Department of Environmental Quality Fee Schedule.

31 (6) Suspension, revocation, and modification of certifications of individuals engaged in lead-
32 based paint activities.

33 (a) The director may, after notice and opportunity for hearing, suspend, revoke, or modify an
34 individual's certification if an individual has:

35 (i) Obtained training documentation through fraudulent means;

36 (ii) Gained admission to and completed an accredited training program through
37 misrepresentation of admission requirements;

38 (iii) Obtained certification through misrepresentation of certification requirements or related
39 documents dealing with education, training, professional registration, or experience;

40 (iv) Performed work requiring certification at a job site without having proof of certification;

41 (v) Permitted the duplication or use of the individual's own certificate by another;

42 (vi) Performed work for which certification is required, but for which appropriate certification
43 has not been received;

44 (vii) Failed to comply with the appropriate work practice standards for lead-based paint activities
45 ~~[at]~~ in ~~Section~~ R307-842-3; or

46 (viii) Failed to comply with federal, state, or local lead-based paint statutes or regulations.

47 (b) In addition to an administrative or judicial finding of violation ~~[-, for purposes of this section~~
48 ~~only,]~~ execution of a consent agreement in settlement of an enforcement action constitutes evidence of a
49 failure to comply with relevant statutes or regulations.

50 (7) Suspension, revocation, and modification of certifications of firms engaged in lead-based
51 paint activities.

- (a) The director may, after notice and opportunity for hearing, suspend, revoke, or modify a firm's certification if a firm has:
- (i) Performed work requiring certification at a job site with individuals who are not certified;
 - (ii) Failed to comply with the work practice standards established in **Section R307-842-3**;
 - (iii) Misrepresented facts in its letter of application for certification to the director;
 - (iv) Failed to maintain required records; or
 - (v) Failed to comply with federal, state, or local lead-based paint statutes or regulations.
- (b) In addition to an administrative or judicial finding of violation~~[, for purposes of this section only,]~~ execution of a consent agreement in settlement of an enforcement action constitutes evidence of a failure to comply with relevant statutes or regulations.

R307-842-3. Work Practice Standards for Conducting Lead-Based Paint Activities: Target Housing and Child-Occupied Facilities.

- (1) Effective date, applicability, and terms.
- (a) All lead-based paint activities shall be performed pursuant to the work practice standards~~[contained in this section]~~.
- (b) ~~[When]~~ If performing any lead-based paint activity described by the certified individual as an inspection, lead-hazard screen, risk assessment, or abatement, a certified individual must perform that activity in compliance with the appropriate requirements below.
- (c) Documented methodologies that are appropriate~~[for this section]~~ are found in the following: the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, the EPA Guidance on Residential Lead-Based Paint, Lead-Contaminated Dust, and Lead-Contaminated Soil, the EPA Residential Sampling for Lead: Protocols for Dust and Soil Sampling (EPA report number 7474-R-95-001), and other equivalent methods and guidelines.
- (d) ~~[Clearance]~~ Action levels ~~[are]~~ appropriate for the purposes of~~[this section]~~ **Section R307-842-3** may be found in the EPA Guidance on Residential Lead-Based Paint, Lead-Contaminated Dust, and Lead Contaminated Soil or other equivalent guidelines.
- (2) Inspection.
- (a) An inspection shall be conducted only by a person certified by the director as an inspector or risk assessor and, if conducted, must be conducted according to the procedures in this paragraph.
- (b) ~~[When]~~ If conducting an inspection, the following locations shall be selected according to documented methodologies and tested for the presence of lead-based paint:
- (i) In a residential dwelling and child-occupied facility, each component with a distinct painting history and each exterior component with a distinct painting history shall be tested for lead-based paint, except those components that the inspector or risk assessor determines to have been replaced after 1978, or to not contain lead-based paint; and
 - (ii) In a multi-family dwelling or child-occupied facility, each component with a distinct painting history in every common area, except those components that the inspector or risk assessor determines to have been replaced after 1978, or to not contain lead-based paint.
- (c) Paint shall be sampled in the following manner:
- (i) The analysis of paint to determine the presence of lead shall be conducted using documented methodologies which incorporate adequate quality control procedures; ~~[and/]~~ or
 - (ii) All collected paint chip samples shall be analyzed according to~~[paragraph]~~ **Subsection R307-842-3(6)**~~[of this section]~~ to determine if they contain detectable levels of lead that can be quantified numerically.
- (d) The certified inspector or risk assessor shall prepare an inspection report which shall include the following information:
- (i) Date of each inspection;
 - (ii) Address of building;
 - (iii) Date of construction;
 - (iv) Apartment numbers, ~~[if applicable]~~;

(v) Name, address, and telephone number of the owner or owners of each residential dwelling or child-occupied facility;

(vi) Name, signature, and certification number of each certified inspector ~~[and/]~~ or risk assessor conducting testing;

(vii) Name, address, and telephone number of the certified firm employing each inspector ~~[and/]~~ or risk assessor, if applicable;

(viii) Each testing method and device and ~~/or~~ sampling procedure employed for paint analysis, including quality control data and, if used, the serial number of any x-ray fluorescence (XRF) device;

(ix) Specific locations of each painted component tested for the presence of lead-based paint; and

(x) The results of the inspection expressed in terms appropriate to the sampling method used.

(3) Lead hazard screen.

(a) A lead hazard screen shall be conducted only by a person certified by the director as a risk assessor.

(b) If conducted, a lead hazard screen shall be conducted as follows:

(i) Background information regarding the physical characteristics of the residential dwelling or child-occupied facility and occupant use patterns that may cause lead-based paint exposure to one or more children age ~~six [6]~~ years and under shall be collected;

(ii) A visual inspection of the residential dwelling or child-occupied facility shall be conducted to:

(A) Determine if any deteriorated paint is present; and

(B) Locate at least two dust sampling locations;

(iii) If deteriorated paint is present, each surface with deteriorated paint, which is determined, using documented methodologies, to be in poor condition and to have a distinct painting history, shall be tested for the presence of lead;

(iv) In residential dwellings, two composite dust samples shall be collected, one from the floors and the other from the windows, in rooms, hallways, or stairwells where one or more children, age ~~six [6]~~ and under, are most likely to come in contact with dust; and

(v) In multi-family dwellings and child-occupied facilities, in addition to the floor and window samples required in ~~[paragraph] Subsection R307-842-3(3)(b)(iv) [of this section]~~, the risk assessor shall also collect composite dust samples from common areas where one or more children, age ~~six [6]~~ and under, are most likely to come into contact with dust.

(c) Dust samples shall be collected and analyzed in the following manner:

(i) All dust samples shall be taken using documented methodologies that incorporate adequate quality control procedures; and

(ii) All collected dust samples shall be analyzed according to ~~[paragraph] Subsection R307-842-3(6) [of this section]~~ to determine if they contain detectable levels of lead that can be quantified numerically.

(d) Paint shall be sampled in the following manner:

(i) The analysis of paint to determine the presence of lead shall be conducted using documented methodologies which incorporate adequate quality control procedures; ~~[and/]~~ or

(ii) All collected paint chip samples shall be analyzed according to ~~[paragraph] Subsection R307-842-3(6) [of this section]~~ to determine if they contain detectable levels of lead that can be quantified numerically.

(e) The risk assessor shall prepare a lead hazard screen report, which shall include the following information:

(i) The information required in a risk assessment report as specified in ~~[paragraph] Subsection R307-842-3(4) [of this section]~~, including ~~[paragraphs] Subsections R307-842-3(4)(k)(i) through R307-842-3(4)(k)(xiv), and excluding [paragraphs] Subsections R307-842-3(4)(k)(xv) through R307-842-3(4)(k)(xviii) [of this section]~~. Additionally, any background information collected pursuant to ~~[paragraph] Subsection R307-842-3(3)(b)(i) [of this section]~~ shall be included in the lead hazard screen report; and

(ii) Recommendations, if warranted, for a follow-up risk assessment, and as appropriate, any further actions.

(4) Risk assessment.

(a) A risk assessment shall be conducted only by a person certified by the director as a risk assessor and, if conducted, must be conducted according to the procedures ~~in this paragraph~~.

(b) A visual inspection for risk assessment of the residential dwelling or child-occupied facility shall be undertaken to locate the existence of deteriorated paint, assess the extent and causes of the deterioration, and other potential lead-based paint hazards.

(c) Background information regarding the physical characteristics of the residential dwelling or child-occupied facility and occupant use patterns that may cause lead-based paint exposure to one or more children age six [6] years and under shall be collected.

(d) The following surfaces which are determined, using documented methodologies, to have a distinct painting history, shall be tested for the presence of lead:

(i) Each friction surface or impact surface with visibly deteriorated paint; and

(ii) All other surfaces with visibly deteriorated paint.

(e) In residential dwellings, dust samples, ~~[(either composite or single-surface samples,)]~~ from the interior window sills [sill(s)] and floor shall be collected and analyzed for lead concentration in all living areas where one or more children, age six [6] and under, are most likely to come into contact with dust.

(f) For multi-family dwellings and child-occupied facilities, the samples required in ~~paragraph Subsection R307-842-3(4)(d) [of this section]~~ shall be taken. In addition, interior window sill and floor dust samples, ~~[(either composite or single-surface samples,)]~~ shall be collected and analyzed for lead concentration in the following locations:

(i) Common areas adjacent to the sampled residential dwelling or child-occupied facility; and

(ii) Other common areas in the building where the risk assessor determines that one or more children, age six [6] and under, are likely to come into contact with dust.

(g) For child-occupied facilities, interior window sill and floor dust samples, ~~[(either composite or single-surface samples,)]~~ shall be collected and analyzed for lead concentration in each room, hallway, or stairwell utilized by one or more children, age six [6] and under, and in other common areas in the child-occupied facility where one or more children, age six [6] and under, are likely to come into contact with dust.

(h) Soil samples shall be collected and analyzed for lead concentrations in the following locations:

(i) Exterior play areas where bare soil is present;

(ii) The rest of the yard, meaning [(i.e.,)] non-play areas,)] where bare soil is present; and

(iii) Dripline or [(foundation areas where bare soil is present.

(i) Any paint, dust, or soil sampling or testing shall be conducted using documented methodologies that incorporate adequate quality control procedures.

(j) Any collected paint chip, dust, or soil samples shall be analyzed according to ~~paragraph Subsection R307-842-3(6) [of this section]~~ to determine if they contain detectable levels of lead that can be quantified numerically.

(k) The certified risk assessor shall prepare a risk assessment report which shall include the following information:

(i) Date of assessment;

(ii) Address of each building;

(iii) Date of construction of buildings;

(iv) Apartment number, ~~[(if applicable)]~~;

(v) Name, address, and telephone number of each owner of each building;

(vi) Name, signature, and certification number of the certified risk assessor conducting the assessment;

(vii) Name, address, and telephone number of the certified firm employing each certified risk assessor, if applicable;

(viii) Name, address, and telephone number of each recognized laboratory conducting analysis of collected samples;

(ix) Results of the visual inspection;

(x) Testing method and sampling procedure for paint analysis employed;

(xi) Specific locations of each painted component tested for the presence of lead;

(xii) All data collected from on-site testing, including quality control data and, if used, the serial number of any XRF device.

(xiii) All results of laboratory analysis on collected paint, soil, and dust samples;

(xiv) Any other sampling results;

(xv) Any background information collected pursuant to ~~paragraph~~ Subsection R307-842-3(4)(c) ~~of this section~~;

(xvi) To the extent that they are used as part of the lead-based paint hazard determination, the results of any previous inspections or analyses for the presence of lead-based paint, or other assessments of lead-based paint-related hazards;

(xvii) A description of the location, type, and severity of identified lead-based paint hazards and any other potential lead hazards; and

(xviii) A description of interim controls ~~and~~ or abatement options for each identified lead-based paint hazard and a suggested prioritization for addressing each hazard. If the use of an encapsulant or enclosure is recommended, the report shall recommend a maintenance and monitoring schedule for the encapsulant or enclosure.

(5) Abatement.

(a) An abatement shall be conducted only by an individual certified by the director, and if conducted, shall be conducted according to the procedures ~~in this paragraph~~.

(b) A certified supervisor is required for each abatement project and shall be onsite during all work site preparation and during the post-abatement cleanup of work areas. At all other times when abatement activities are being conducted, the certified supervisor shall be onsite or available by telephone, pager or answering service, and able to be present at the work site in no more than ~~two~~ 2 hours.

(c) The certified supervisor and the certified firm employing that supervisor shall ensure that all abatement activities are conducted according to the requirements ~~of this section~~ and all other federal, state, and local requirements.

(d) A certified firm must notify the director of lead-based paint abatement activities as follows:

(i) Except as provided in ~~paragraph~~ Subsection R307-842-3(5)(d)(ii) ~~of this section~~, the director must be notified prior to conducting lead-based paint abatement activities. The original notification must be received by the director at least five ~~5~~ business days before the start date of any lead-based paint abatement activities;

(ii) Notification for lead-based paint abatement activities required in response to an elevated blood lead level (EBL) determination, or federal, state, tribal, or local emergency abatement order should be received by the director as early as possible before, but must be received no later than the start date of the lead-based paint abatement activities. Should the start date ~~and~~ or location provided to the director change, an updated notification must be received by the director on or before the start date provided to the director. Documentation showing evidence of an EBL determination or a copy of the federal, ~~state,~~ tribal, or ~~local~~ emergency abatement order must be included in the written notification to take advantage of this abbreviated notification period;

(iii) Except as provided in ~~paragraph~~ Subsection R307-842-3(5)(d)(ii) ~~of this section~~, updated notification must be provided to the director for lead-based paint abatement activities that will begin on a date other than the start date specified in the original notification, as follows:

(A) For lead-based paint abatement activities beginning prior to the start date provided to the director an updated notification must be received by the director at least five ~~5~~ business days before the new start date included in the notification; and

(B) For lead-based paint abatement activities beginning after the start date provided to the director an updated notification must be received by the director on or before the start date provided to the director;

(iv) Except as provided in ~~paragraph~~ Subsection R307-842-3(5)(d)(ii) ~~of this section~~, updated notification must be provided to the director for any change in location of lead-based paint abatement activities at least ~~five~~ ~~[5]~~ business days prior to the start date provided to the director;

(v) Updated notification must be provided to the director ~~when~~ ~~if~~ lead-based paint abatement activities are canceled, or ~~when~~ ~~if~~ there are other significant changes including, but not limited to, ~~when~~ ~~if~~ the square footage or acreage to be abated changes by more than 20%. This updated notification must be received by the director on or before the start date provided to the director, or if work has already begun, within 24 hours of the change;

(vi) The following must be included in each notification:

(A) Notification type ~~such as~~ ~~(original, updated, or cancellation)~~ ~~);~~;

(B) Date when lead-based paint abatement activities will start;

(C) ~~Approximate~~ ~~[D]~~ date when lead-based paint abatement activities will end; ~~(approximation using best professional judgment);~~;

(D) Firm's name, Utah lead-based paint firm certification number, address, and telephone number;

(E) Type of building ~~such as~~ ~~(e.g.,~~ single family dwelling, multi-family dwelling, ~~and/or~~ child-occupied facilities ~~) or~~ in which abatement work will be performed;

(F) Property name, ~~(if applicable)~~ ~~);~~;

(G) Property address including apartment or unit ~~numbers,~~ ~~number(s)~~ ~~(if applicable)~~ ~~);~~ for abatement work;

(H) Documentation showing evidence of an EBL determination or a copy of the federal, ~~[A]~~ state, ~~[A]~~ tribal, ~~or~~ ~~[A]~~ local emergency abatement order, if using the abbreviated time period as described in ~~paragraph~~ Subsection R307-842-3(5)(d)(ii) ~~of this section~~;

(I) Name and Utah lead-based paint individual certification number of the project supervisor;

(J) Approximate square footage ~~or~~ ~~[A]~~ acreage to be abated;

(K) Brief description of abatement activities to be performed; and

(L) Name, title, and signature of the representative of the certified firm who prepared the notification;

(vii) Notification ~~of lead-based paint abatement projects must be submitted electronically or written, using the forms provided by the Utah Division of Air Quality. [must be accomplished using any of the following methods: Written notification, or electronically using the Utah Division of Air Quality electronic notification system. Written notification can be accomplished using either the sample form titled "Lead-Based Paint Abatement Project Notification" or similar form containing the information required in paragraph (5)(d)(vi) of this section. All written notifications must be delivered by United States Postal Service, fax, commercial delivery service, hand delivery, or by email on or before the applicable date. Instructions and sample forms can be obtained from the Utah Division of Air Quality Lead-Based Paint Program web site;]~~

(viii) Lead-based paint abatement activities shall not begin on a date~~,~~ or at a location other than that specified in either an original or updated notification, in the event of changes to the original notification; and

(ix) No firm or individual shall engage in lead-based paint abatement activities, as defined in ~~Section~~ R307-840-2, prior to notifying the director of such activities according to the requirements ~~of this paragraph~~.

(e) A written occupant protection plan shall be developed for all abatement projects and shall be prepared according to the following procedures:

(i) The occupant protection plan shall be unique to each residential dwelling or child-occupied facility and be developed prior to the abatement. The occupant protection plan shall describe the measures and management procedures that will be taken during the abatement to protect the building occupants from exposure to any lead-based paint hazards; and

(ii) A certified supervisor or project designer shall prepare the occupant protection plan.

(f) Containing the work area. Before beginning the abatement activity, the firm must isolate the work area so that no dust or debris leaves the work area while the abatement is being performed. In

1 addition, the firm must maintain the integrity of the containment by ensuring that any plastic or other
2 impermeable materials are not torn or displaced, and taking any other steps necessary to ensure that no
3 dust or debris leaves the work area while the abatement is being performed. The firm must also ensure
4 that containment is installed in such a manner that it does not interfere with occupant and worker egress in
5 an emergency.

6 (i) Interior abatement. The firm must:

7 (A) Remove all objects from the work area, including furniture, rugs, and window coverings, or
8 cover them with plastic sheeting or other impermeable material with all seams and edges taped or
9 otherwise sealed;

10 (B) Close and cover all duct openings in the work area with taped-down plastic sheeting or other
11 impermeable material;

12 (C) Close windows and doors in the work area. Doors must be covered with plastic sheeting or
13 other impermeable material and sealed with duct tape or equivalent. Doors used as an entrance to the
14 work area must be covered with plastic sheeting or other impermeable material in a manner that allows
15 workers to pass through while confining dust and debris to the work area;

16 (D) Cover the floor surface, including installed carpet, with taped-down plastic sheeting or other
17 impermeable material in the work area ~~six~~ [6] feet beyond the perimeter of surfaces undergoing
18 abatement or a sufficient distance to contain the dust, whichever is greater. Floor containment measures
19 may stop at the edge of the vertical barrier ~~when~~ if using a vertical containment system consisting of
20 impermeable barriers that extend from the floor to the ceiling and are tightly sealed at joints with the
21 floor, ceiling, and walls; and

22 (E) Use precautions to ensure that all personnel, tools, and other items, including the exterior of
23 containers of waste, are free of dust and debris before leaving the work area.

24 (ii) Exterior abatement. The firm must:

25 (A) Close all doors and windows within 20 feet of the abatement. On multi-story buildings,
26 close all doors and windows within 20 feet of the abatement on the same floor as the abatement, and close
27 all doors and windows on all floors below that are the same horizontal distance from the abatement;

28 (B) Ensure that doors within the work area that will be used while the job is being performed are
29 covered with plastic sheeting or other impermeable material in a manner that allows workers to pass
30 through while confining dust and debris to the work area;

31 (C) Cover the ground with plastic sheeting or other disposable impermeable material extending
32 ~~ten~~ [40] feet beyond the perimeter of surfaces undergoing abatement or a sufficient distance to collect
33 falling paint debris, whichever is greater, unless the property line prevents ~~ten~~ [40] feet of such ground
34 covering. Ground containment measures may stop at the edge of the vertical barrier ~~when~~ if using a
35 vertical containment system; and

36 (D) If the abatement will affect surfaces within ~~ten~~ [40] feet of the property line, the lead-based
37 paint firm must erect vertical containment or equivalent precautions in containing the work area to ensure
38 that dust and debris from the abatement does not contaminate adjacent buildings or migrate to adjacent
39 properties. Vertical containment or equivalent extra precautions in containing the work area may also be
40 necessary in other situations in order to prevent contamination of other buildings, other areas of the
41 property, or adjacent buildings or properties.

42 (g) The work practices listed below shall be restricted during an abatement as follows:

43 (i) Open-flame burning or torching of lead-based paint is prohibited;

44 (ii) Machine sanding or grinding or abrasive blasting or sandblasting of lead-based paint is
45 prohibited unless used with High Efficiency Particulate Air (HEPA) exhaust control which removes
46 particles of 0.3 microns or larger from the air at 99.97% or greater efficiency;

47 (iii) Dry scraping of lead-based paint is permitted only in conjunction with heat guns or around
48 electrical outlets or ~~when~~ if treating defective paint spots totaling no more than ~~two~~ [2] square feet in
49 any one room, hallway, or stairwell or totaling no more than 20 square feet on exterior surfaces; and

50 (iv) Operating a heat gun on lead-based paint is permitted only at temperatures below ~~1~~ 100
51 degrees Fahrenheit.

52 (h) Waste from abatement.

(i) Waste from the abatement activity must be contained to prevent releases of dust and debris before the waste is removed from the work area for storage or disposal. If a chute is used to remove waste from the work area, it must be covered.

(ii) At the conclusion of each work day and at the conclusion of the abatement, waste that has been collected from the abatement must be stored under containment, in an enclosure, or behind a barrier that prevents release of dust and debris out of the work area and prevents access to dust and debris.

(iii) ~~When~~ If the firm transports waste from the abatement, the firm must contain the waste to prevent release of dust and debris.

(i) If conducted, soil abatement shall be conducted in one of the following ways:

(i) If the soil is removed:

(A) The soil shall be replaced by soil with a lead concentration as close to local background as practicable, but no greater than 400 ppm; and

(B) The soil that is removed shall not be used as top soil at another residential property or child-occupied facility; or

(ii) If soil is not removed, the soil shall be permanently covered, as defined in Section R307-840-2.

(j) The following post-abatement clearance procedures shall be performed only by a certified inspector or risk assessor:

(i) Following an abatement, a visual inspection shall be performed to determine if deteriorated painted surfaces ~~and~~ or visible amounts of dust, debris, or residue are still present. If deteriorated painted surfaces or visible amounts of dust, debris, or residue are present, these conditions must be eliminated prior to the continuation of the clearance procedures;

(ii) Following the visual inspection and any post-abatement cleanup required by ~~paragraph~~ Subsection R307-842-3(5)(h)(i) ~~of this section~~, clearance sampling for lead in dust shall be conducted. Clearance sampling may be conducted by employing single-surface sampling or composite sampling techniques;

(iii) Dust samples for clearance purposes shall be taken using documented methodologies that incorporate adequate quality control procedures;

(iv) Dust samples for clearance purposes shall be taken a minimum of one [1] hour after completion of final post-abatement cleanup activities;

(v) The following post-abatement clearance activities shall be conducted as appropriate based upon the extent or manner of abatement activities conducted in or to the residential dwelling or child-occupied facility:

(A) After conducting an abatement with containment between abated and unabated areas, one dust sample shall be taken from one interior window sill and from one window trough, ~~[(if present,)]~~ and one dust sample shall be taken from the floors of each of no less than four rooms, hallways, or stairwells within the containment area. In addition, one dust sample shall be taken from the floor outside the containment area. If there are less than four rooms, hallways, or stairwells within the containment area, then all rooms, hallways, or stairwells shall be sampled;

(B) After conducting an abatement with no containment, two dust samples shall be taken from each of no less than four rooms, hallways, or stairwells in the residential dwelling or child-occupied facility. One dust sample shall be taken from one interior window sill and window trough, ~~[(if present,)]~~ and one dust sample shall be taken from the floor of each room, hallway, or stairwell selected. If there are less than four rooms, hallways, or stairwells within the residential dwelling or child-occupied facility, then all rooms, hallways, or stairwells shall be sampled; and

(C) Following an exterior paint abatement, a visible inspection shall be conducted. All horizontal surfaces in the outdoor living area closest to the abated surface shall be found to be cleaned of visible dust and debris. In addition, a visual inspection shall be conducted to determine the presence of paint chips on the dripline or next to the foundation below any exterior surface abated. If paint chips are present, they must be removed from the site and properly disposed of, according to all applicable federal, state, and local requirements;

(vi) The rooms, hallways, or stairwells selected for sampling shall be selected according to documented methodologies;

(vii) The certified inspector or risk assessor shall compare the residual lead level, ~~(f)~~ as determined by the laboratory analysis, ~~(j)~~ from each single surface dust sample with clearance levels in ~~paragraph~~ Subsection R307-842-3(5)(h)(viii) ~~of this section~~ for lead in dust on floors, interior window sills, and window troughs or from each composite dust sample with the applicable clearance levels for lead in dust on floors, interior window sills, and window troughs divided by half the number of subsamples in the composite sample. If the residual lead level in a single surface dust sample equals or exceeds the applicable clearance level or if the residual lead level in a composite dust sample equals or exceeds the applicable clearance level divided by half the number of subsamples in the composite sample, the components represented by the failed sample shall be recleaned and retested; and

(viii) The clearance levels for lead in dust are ~~ten~~ ~~[40]~~ ug/ft² for floors, 100 ug/ft² for interior window sills, and 400 ug/ft² for window troughs.

(ix) Occupants of the home shall not be allowed into the abatement work area until clearance dust sample results are received by the inspector or risk assessor and are found to be acceptable according to dust-lead clearance level standards.

(k) In a multi-family dwelling with similarly constructed and maintained residential dwellings, random sampling for the purposes of clearance may be conducted provided:

(i) The certified individuals who abate or clean the residential dwellings do not know which residential dwelling will be selected for the random sample;

(ii) A sufficient number of residential dwellings are selected for dust sampling to provide a 95% level of confidence that no more than 5% or 50 of the residential dwellings, ~~(f)~~ whichever is smaller ~~(j)~~ in the randomly sampled population exceed the appropriate clearance levels; and

(iii) The randomly selected residential dwellings shall be sampled and evaluated for clearance according to the procedures found in ~~paragraph~~ Subsection R307-842-3(5)(h) ~~of this section~~.

(l) An abatement report shall be prepared by a certified supervisor or project designer no later than 30 business days after receiving the results of final clearance testing and all soil analyses, ~~(f)~~ if applicable ~~(j)~~. The abatement report shall include the following information:

(i) Start and completion dates of abatement;

(ii) The name and address of each certified firm conducting the abatement and the name of each supervisor assigned to the abatement project;

(iii) The occupant protection plan prepared pursuant to ~~paragraph~~ Subsection R307-842-3(5)(e) ~~of this section~~;

(iv) The name, address, and signature of each certified risk assessor or inspector conducting clearance sampling and the date of clearance testing;

(v) The results of clearance testing and all soil analyses, ~~(f)~~ if applicable, ~~(j)~~ and the name of each recognized laboratory that conducted the analyses; and

(vi) A detailed written description of the abatement, including abatement methods used, locations of rooms ~~and~~ or components where abatement occurred, reason for selecting particular abatement methods for each component, and any suggested monitoring of encapsulants or enclosures.

(6) Collection and laboratory analysis of samples. Any paint chip, dust, or soil samples collected pursuant to the work practice standards ~~contained in this section~~ shall be:

(a) Collected by persons certified by the director as an inspector or risk assessor; and

(b) Analyzed by a laboratory recognized by EPA pursuant to Section 405(b) of TSCA as being capable of performing analyses for lead compounds in paint chip, dust, and soil samples.

(7) Composite dust sampling. Composite dust sampling may only be conducted in the situations specified in ~~paragraphs~~ Subsections R307-842-3(3) through R307-842-3(5) ~~of this section~~. If such sampling is conducted, the following conditions shall apply:

(a) Composite dust samples shall consist of at least two subsamples;

(b) Every component that is being tested shall be included in the sampling; and

(c) Composite dust samples shall not consist of subsamples from more than one type of component.

- (8) Determinations.
- (a) Lead-based paint is present:
- (i) On any surface that is tested and found to contain lead equal to or in excess of 1.0 milligrams per square centimeter or equal to or in excess of 0.5% by weight; and
- (ii) On any surface like a surface tested in the same room equivalent that has a similar painting history and that is found to be lead-based paint.
- (b) A paint-lead hazard is present:
- (i) On any friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface, such as [(e.g.,] the window sill or floor,[]] are equal to or greater than the dust hazard levels identified in the definition of "Dust-lead hazard" in Section R307-840-2;
- (ii) On any chewable lead-based paint surface on which there is evidence of teeth marks;
- (iii) Where there is any damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component [(f) such as a door knob that knocks into a wall or a door that knocks against its door frame,[]]; and
- (iv) If there is any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.
- (c) A dust-lead hazard is present in a residential dwelling or child-occupied facility:
- (i) In a residential dwelling on floors and interior window sills [when] if the weighted arithmetic mean lead loading for all single surface or composite samples of floors and interior window sills are equal to or greater than ten [40] ug/ft² for floors and 100 ug/ft² for interior window sills, respectively;
- (ii) On floors or interior window sills in an unsampled residential dwelling in a multi-family dwelling, if a dust-lead hazard is present on floors or interior window sills, respectively, in at least one sampled residential unit on the property; and
- (iii) On floors or interior window sills in an unsampled common area in a multi-family dwelling, if a dust-lead hazard is present on floors or interior window sills, respectively, in at least one sampled common area in the same common area group on the property.
- (d) A soil-lead hazard is present:
- (i) In a play area [when] if the soil-lead concentration from a composite play area sample of bare soil is equal to or greater than 400 parts per million; or
- (ii) In the rest of the yard [when] if the arithmetic mean lead concentration from a composite sample [(f) or arithmetic mean of composite samples,[]] of bare soil from the rest of the yard, meaning [(i.e.,] non-play areas,[]] for each residential building on a property is equal to or greater than 1,200 parts per million.
- (9) Recordkeeping. All reports or plans required [in this section] shall be maintained by the certified firm or individual who prepared the report for no fewer than three [3] years. The certified firm or individual also shall provide copies of these reports to the building owner who contracted for its services.

R307-842-4. Lead-Based Paint Activities Requirements.

Lead-based paint activities, as defined in Section R307-840-2, shall only be conducted according to the procedures and work practice standards contained in Section R307-842-3 [of this rule]. No individual or firm may offer to perform or perform any lead-based paint activity as defined in Section R307-840-2, unless certified to perform that activity according to the procedures in Section R307-842-2.

R307-842-5. Work Practice Requirements for Lead-Based Paint Hazards.

Applicable certification, occupant protection, and clearance requirements and work practice standards are found in Rule R307-842 and in regulations issued by HUD at 24 CFR Part 35, Subpart R. The work practice standards in those regulations do not apply [when] if treating paint-lead hazards of less than:

- (a) Two square feet of deteriorated lead-based paint per room or equivalent,
- (b) Twenty square feet of deteriorated paint on the exterior building, or

1 (c) Ten percent of the total surface area of deteriorated paint on an interior or exterior type of
2 component with a small surface area.

3
4 **KEY: paint, lead-based paint, lead-based paint abatement**

5 **Date of Last Change: ~~September 1, 2021~~ 2026**

6 **Notice of Continuation: October 2, 2024**

7 **Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(i)**

ITEM 8

Air Toxics



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of Environmental Quality

Tim Davis
Commissioner

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQA-415-26

MEMORANDUM

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: June 8, 2026

SUBJECT: Air Toxics, Lead-Based Paint, and Asbestos (ATLAS) Section Compliance Activities – May 2026

Asbestos Demolition/Renovation NESHAP Inspections	7
Asbestos AHERA Inspections	3
Asbestos State Rules Only Inspections	5
Asbestos Notification Forms Accepted	183
Asbestos Telephone Calls	291
Asbestos Individuals Certifications Approved	147
Asbestos Company Certifications	12
Asbestos Alternate Work Practices Approved	7
Lead-Based Paint (LBP) Inspections	2
LBP Notification Forms Approved	3
LBP Telephone Calls	64
LBP Letters Prepared and Mailed	1
LBP Courses Reviewed/Approved	0
LBP Course Audits	0
LBP Individual Certifications Approved	22
LBP Firm Certifications	15

Notices of Violation Sent	0
Compliance Advisories Sent	12
Warning Letters Sent	5
Settlement Agreements Finalized	1
Penalties Agreed to:	
K-Dog, Inc. dba Basin Flood & Fire/ Brady Thompson	\$1,500.00

Compliance



State of Utah

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Governor

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Lieutenant Governor

Department of Environmental Quality

Tim Davis
Commissioner

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQC-642-26

MEMORANDUM

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: June 5, 2026

SUBJECT: Compliance Activities – May 2026

ACTIVITIES:

Activity	Monthly Total
Inspections	104
On-Site Stack Test & CEM Audits	0
Stack Test & RATA Report Reviews	34
Emission Report Reviews	31
Temporary Relocation Request Reviews	4
Fugitive Dust Control Plan Reviews	139
Soil Remediation Report Reviews	3
Open Burn Permits Issued	1,626
Miscellaneous Inspections ¹	18
Complaints Received	72
Wood Burning Complaints Received	0
Breakdown Reports Received	6
Compliance Actions Resulting from a Breakdown	0
VOC Inspections (Gas station vapor recovery)	0
Warning Letters Issued	2
Notices of Violation Issued	0
Compliance Advisories Issued	1
No Further Action Letters Issued	1
Settlement Agreements Reached	1
Penalties Assessed	\$471.00

¹Miscellaneous inspections include, e.g., surveillance, complaint, on-site training, dust patrol, smoke patrol, open burning, etc.

SETTLEMENT AGREEMENTS:

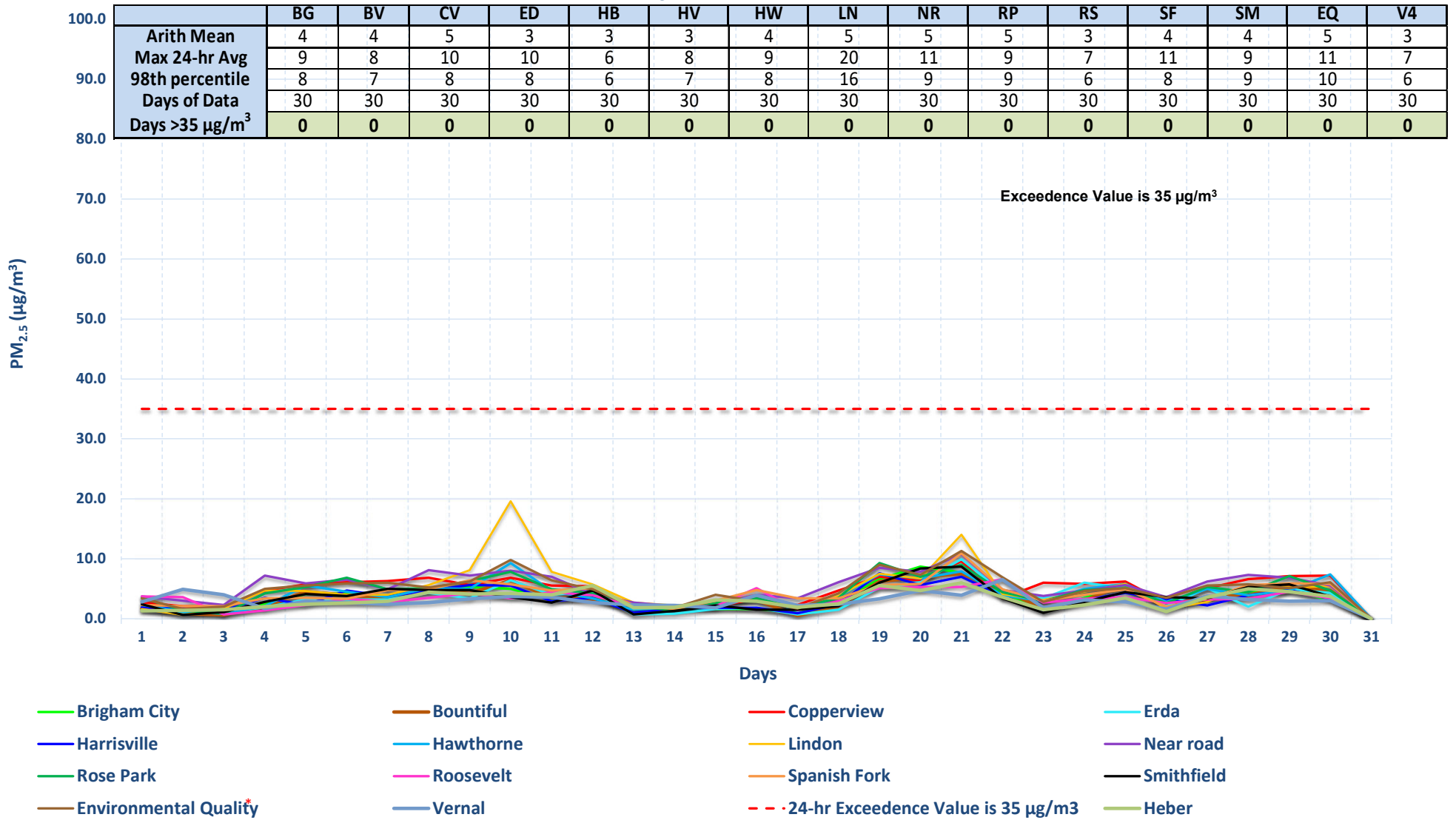
Party	Amount
Salt Lake Department of Airports	\$471.00

UNRESOLVED NOTICES OF VIOLATION:

Party	Date Issued
Citation Oil and Gas (in administrative litigation)	01/15/2020
Uinta Wax Operating (formerly CH4 Finley)	07/24/2020
Finley Resources	09/15/2022
Holcim/Amrize	12/19/2023
Holcim/Amrize	03/27/2024
Holcim/Amrize	08/02/2024
CKC Operations, LLC	02/18/2025
Bedrock Sand & Gravel	05/21/2025
Ash Grove Cement (2)	10/30/2025

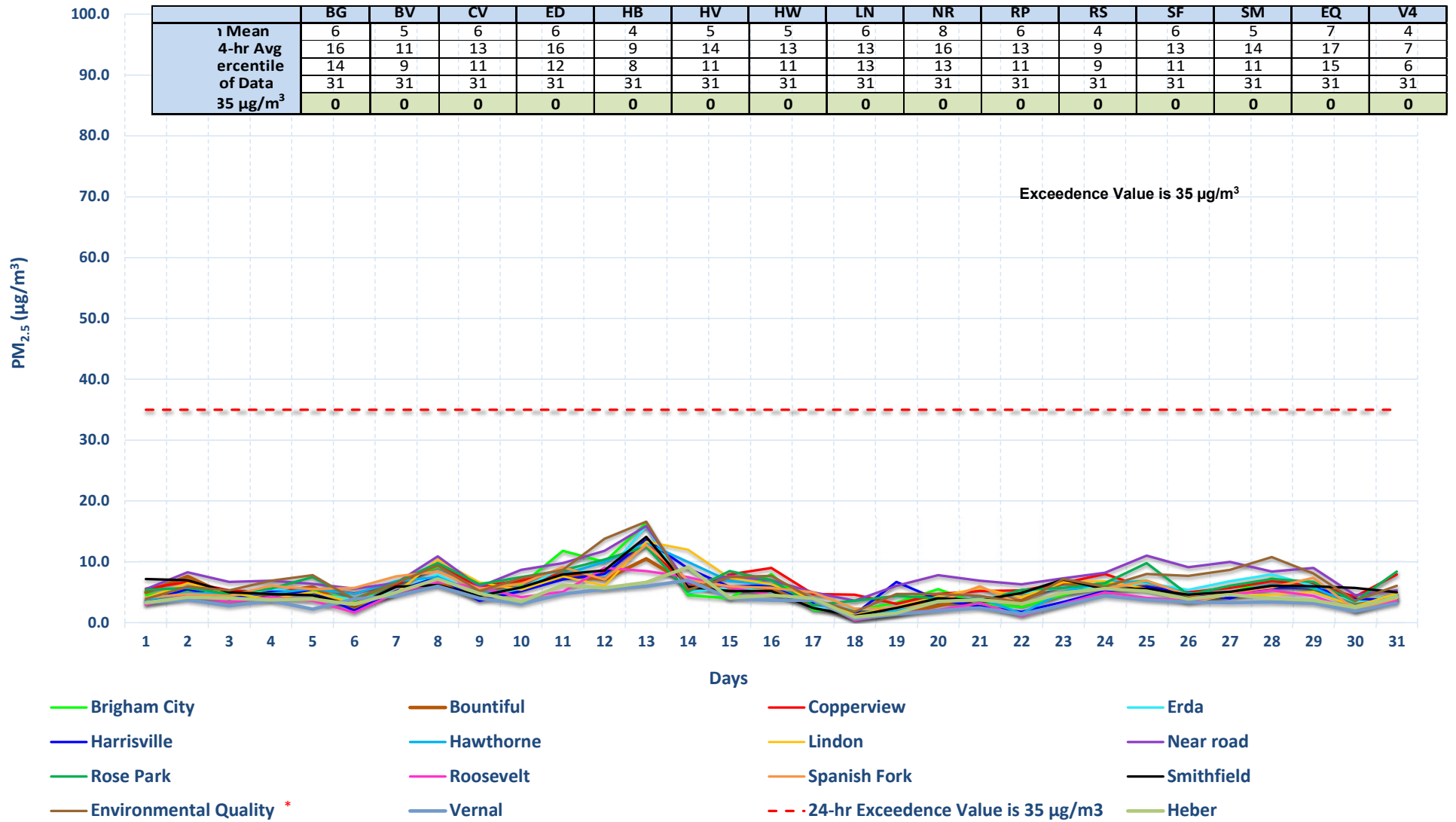
Monitoring

Utah 24-Hr PM_{2.5} Data April 2026



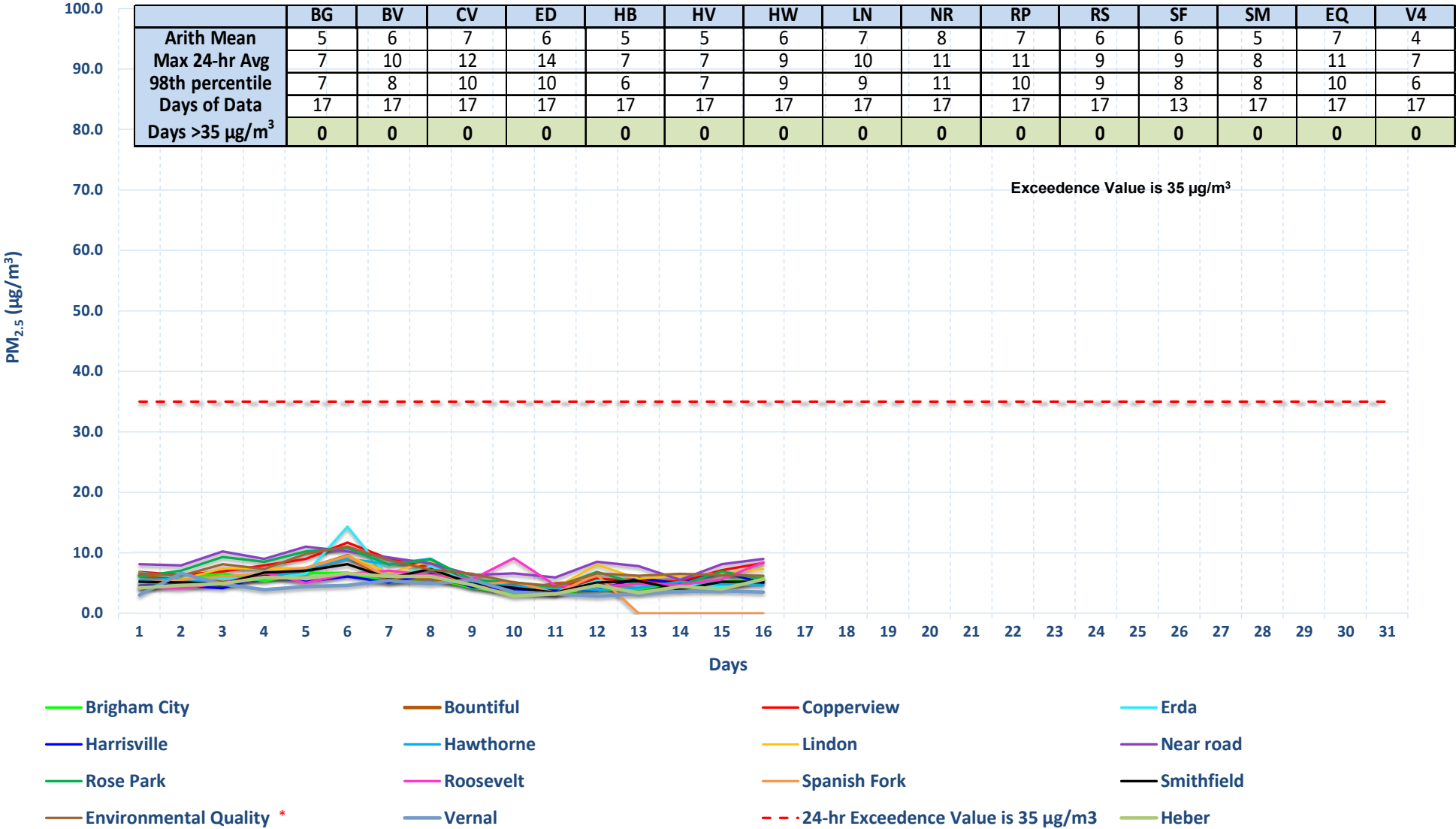
* Environmental Quality (EQ) previously named Technical Support Center (TSC)

Utah 24-Hr PM_{2.5} Data May 2026



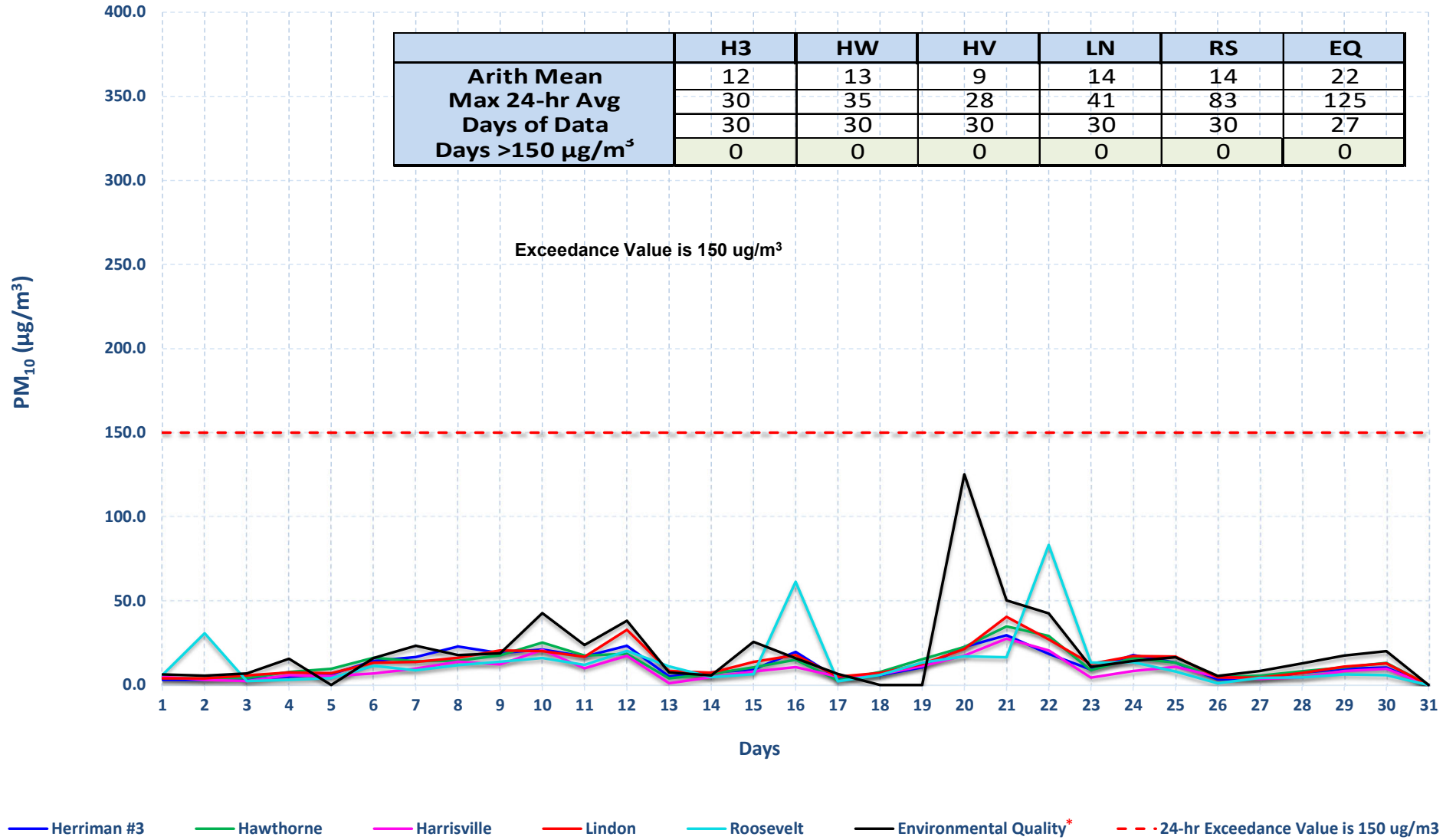
* Environmental Quality (EQ) previously named Technical Support Center (TSC)

Utah 24-Hr PM_{2.5} Data June 2026



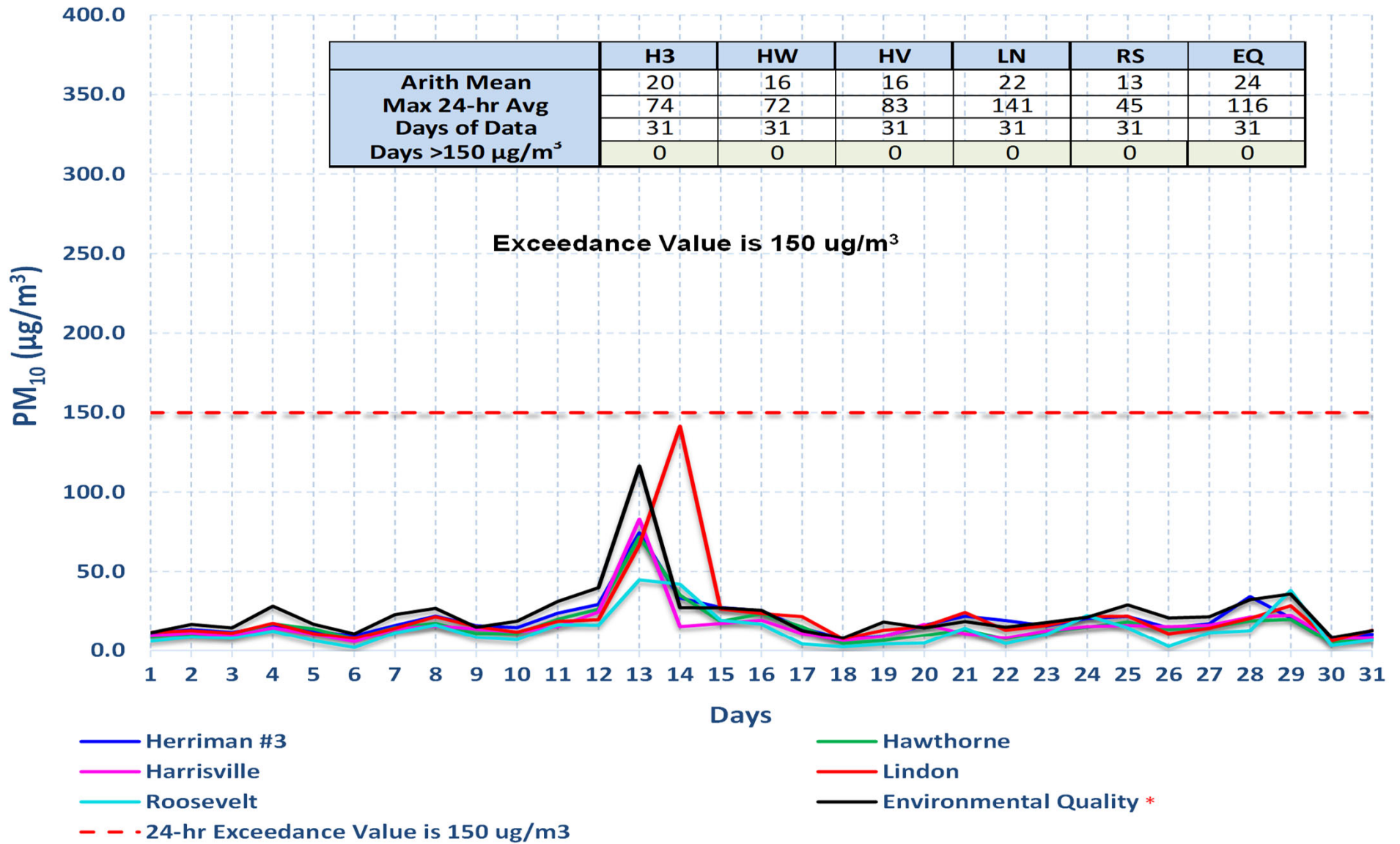
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Utah 24-hr PM₁₀ Data April 2026



* Environmental Quality (EQ) previously named Technical Support Center (TSC)

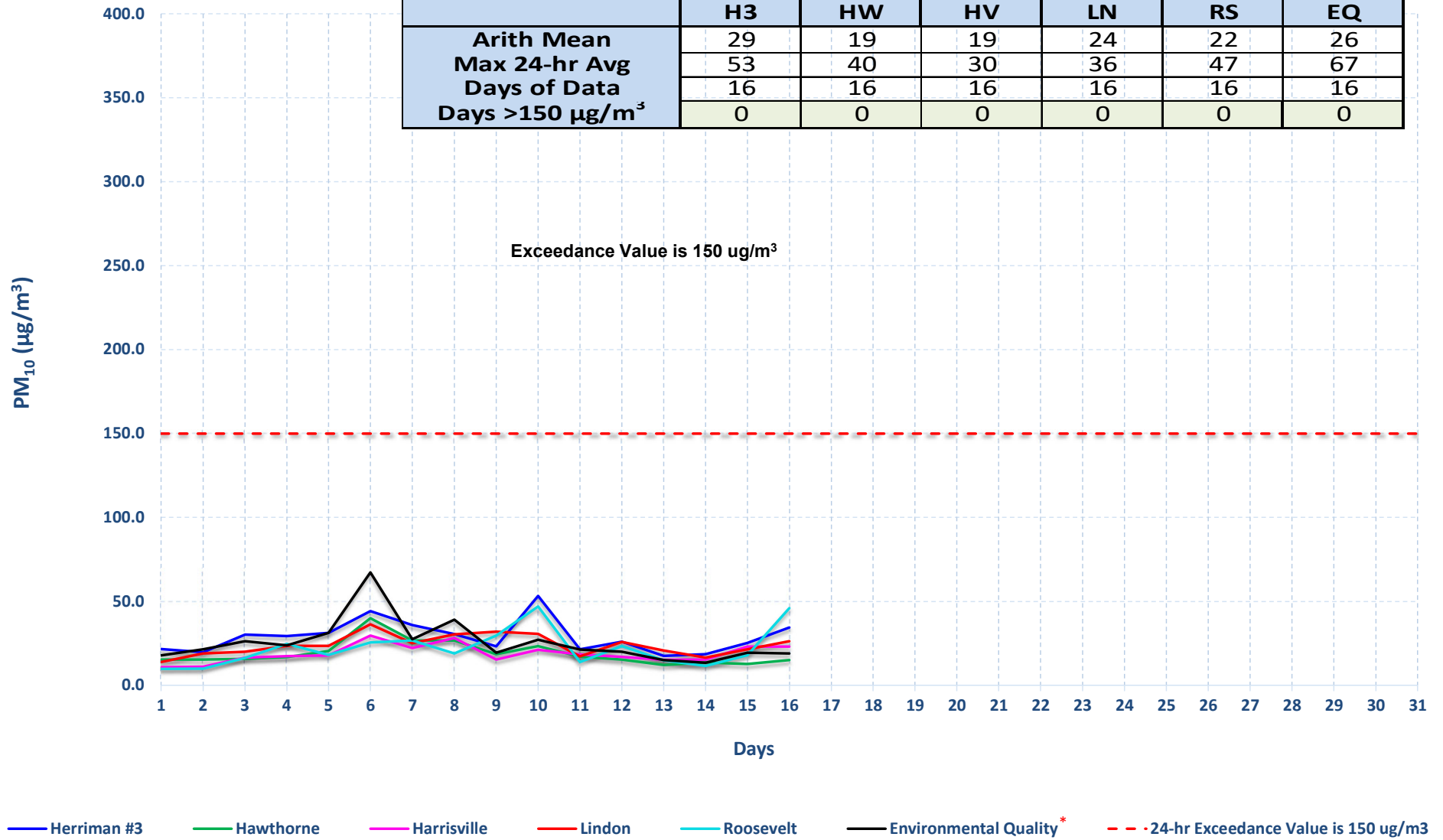
Utah 24-hr PM₁₀ Data May 2026



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Utah 24-hr PM₁₀ Data June 2026

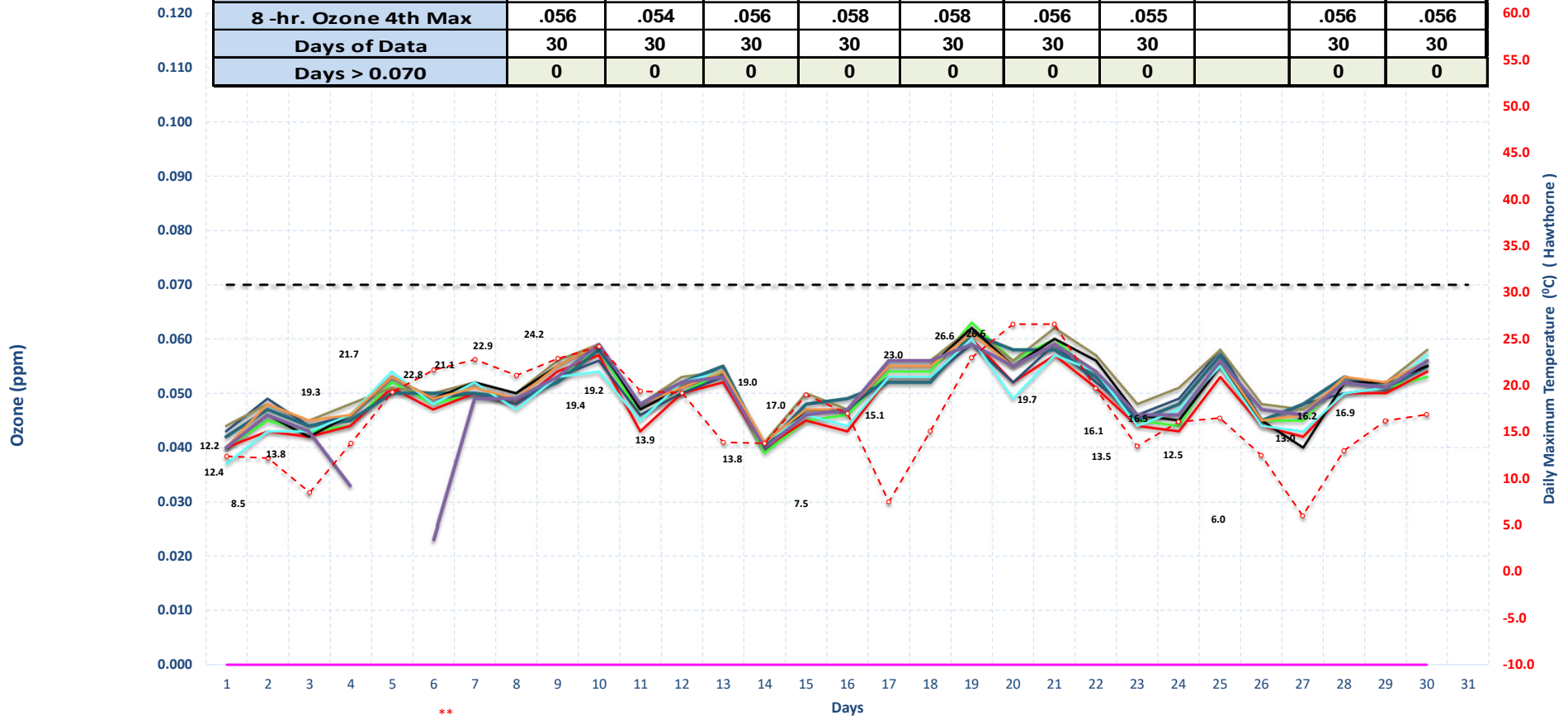
	H3	HW	HV	LN	RS	EQ
Arith Mean	29	19	19	24	22	26
Max 24-hr Avg	53	40	30	36	47	67
Days of Data	16	16	16	16	16	16
Days >150 µg/m ³	0	0	0	0	0	0



* Environmental Quality (EQ) previously named Technical Support Center (TSC)

Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026

O3 Apr 2026	BV	CV	ED	H3	HV	HW	NR	RB	RP	EQ
Arith Mean	.050	.049	.050	.052	.051	.050	.049		.051	.047
8 -hr. Ozone 4th Max	.056	.054	.056	.058	.058	.056	.055		.056	.056
Days of Data	30	30	30	30	30	30	30		30	30
Days > 0.070	0	0	0	0	0	0	0		0	0

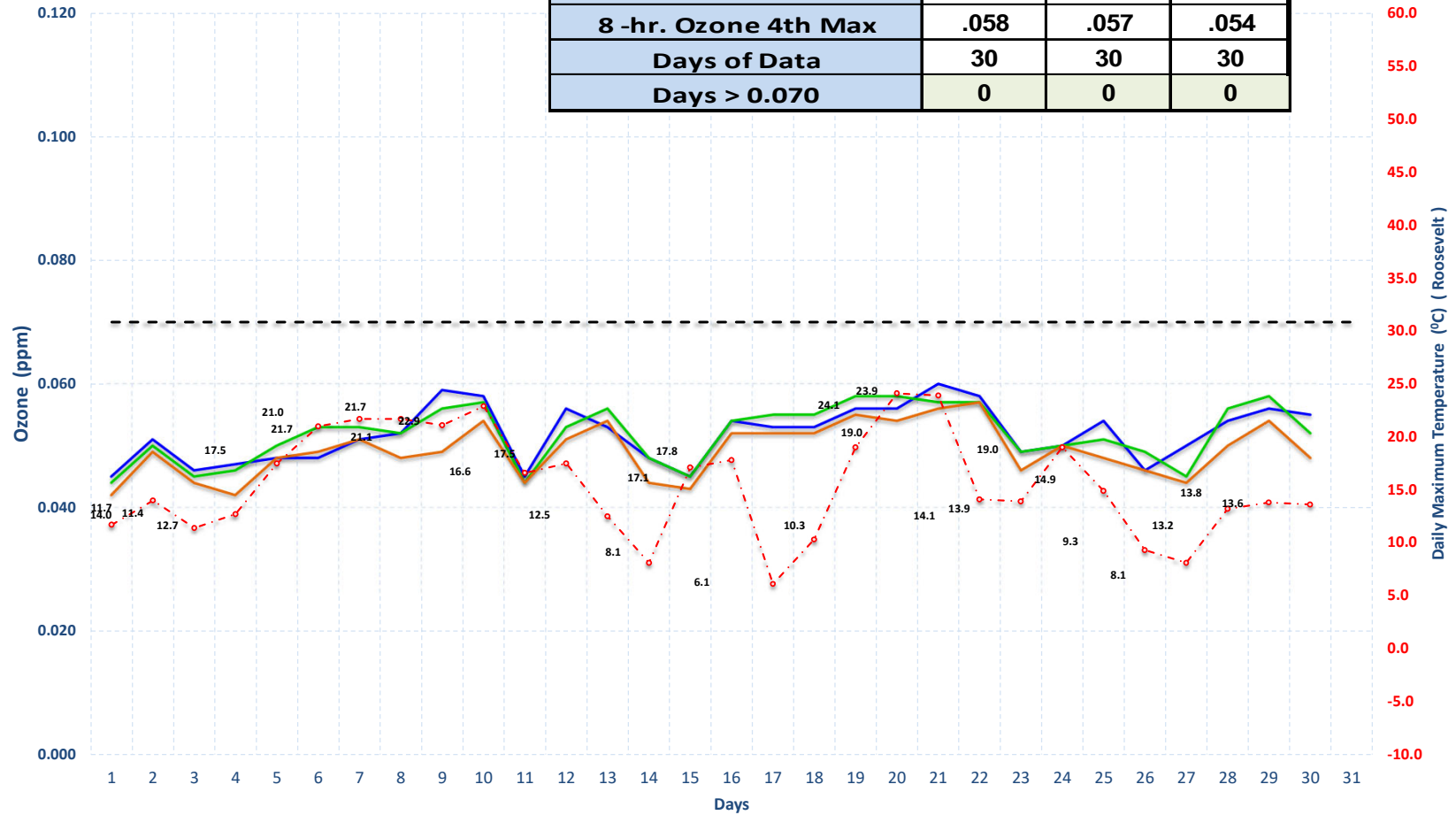


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** Controlling Monitor

Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026

	P2	RS	V4
Arith Mean	.052	.052	.049
8 -hr. Ozone 4th Max	.058	.057	.054
Days of Data	30	30	30
Days > 0.070	0	0	0



Price #2

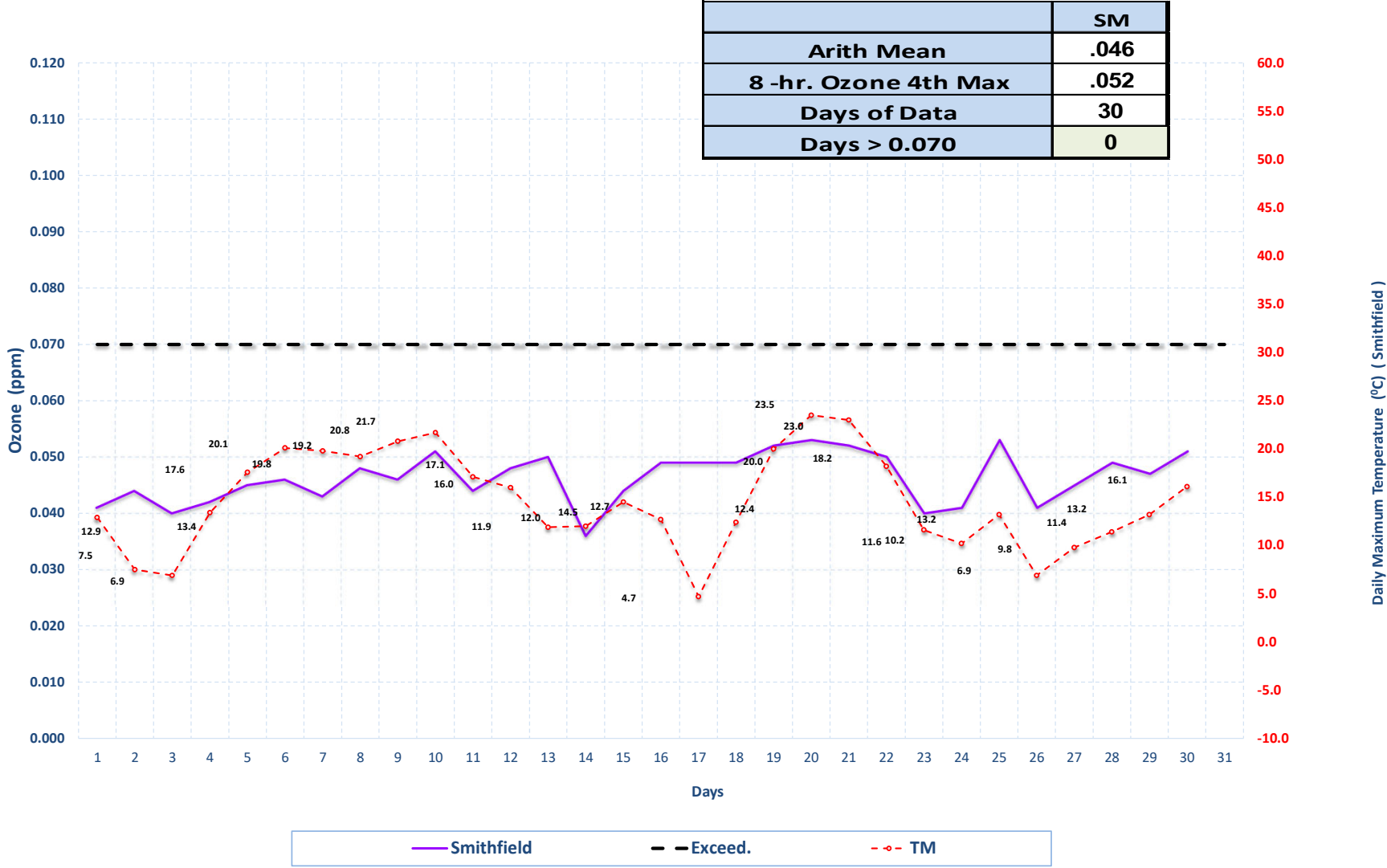
Roosevelt

Vernal

-- Exceed.

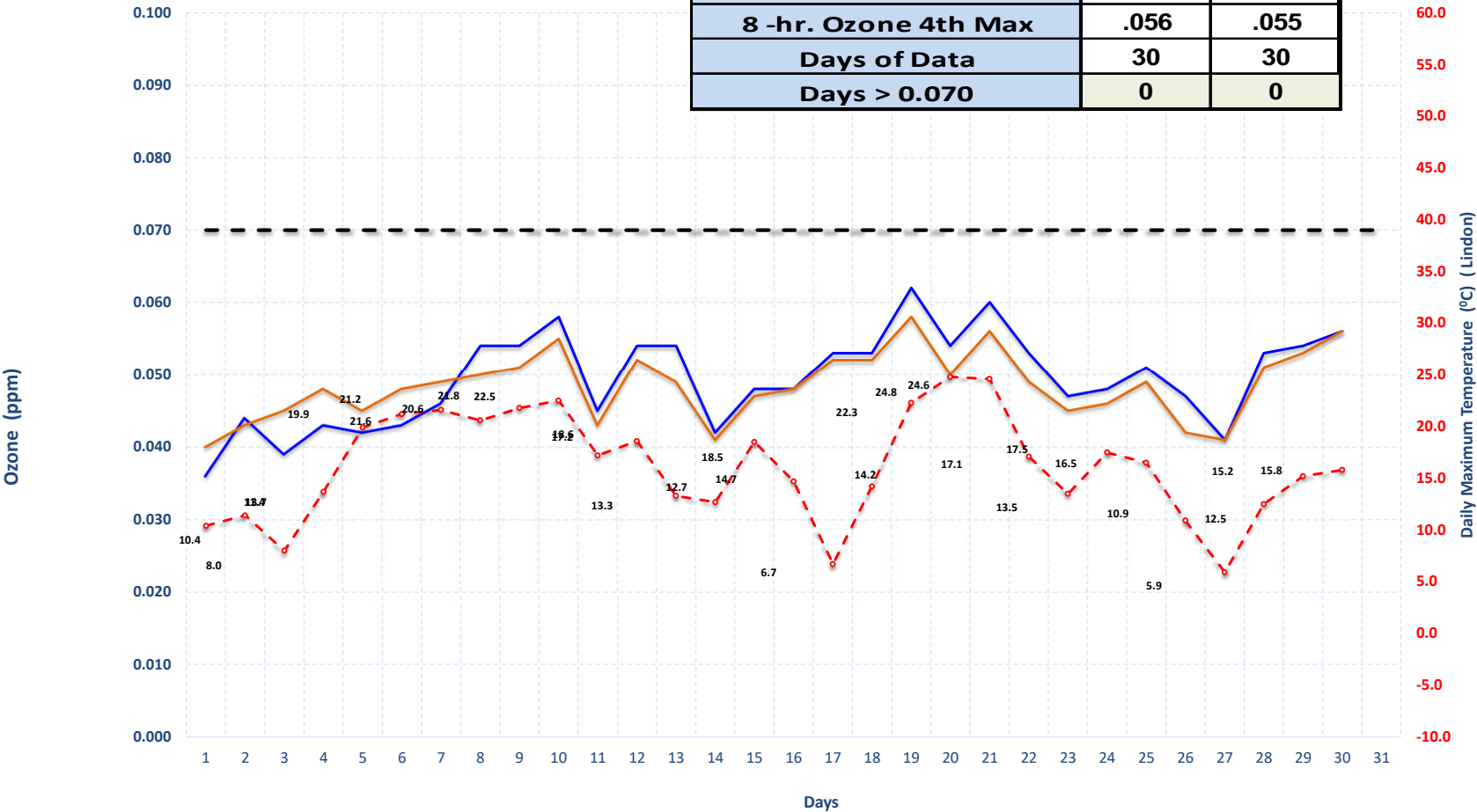
- - - TM

Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026



Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026

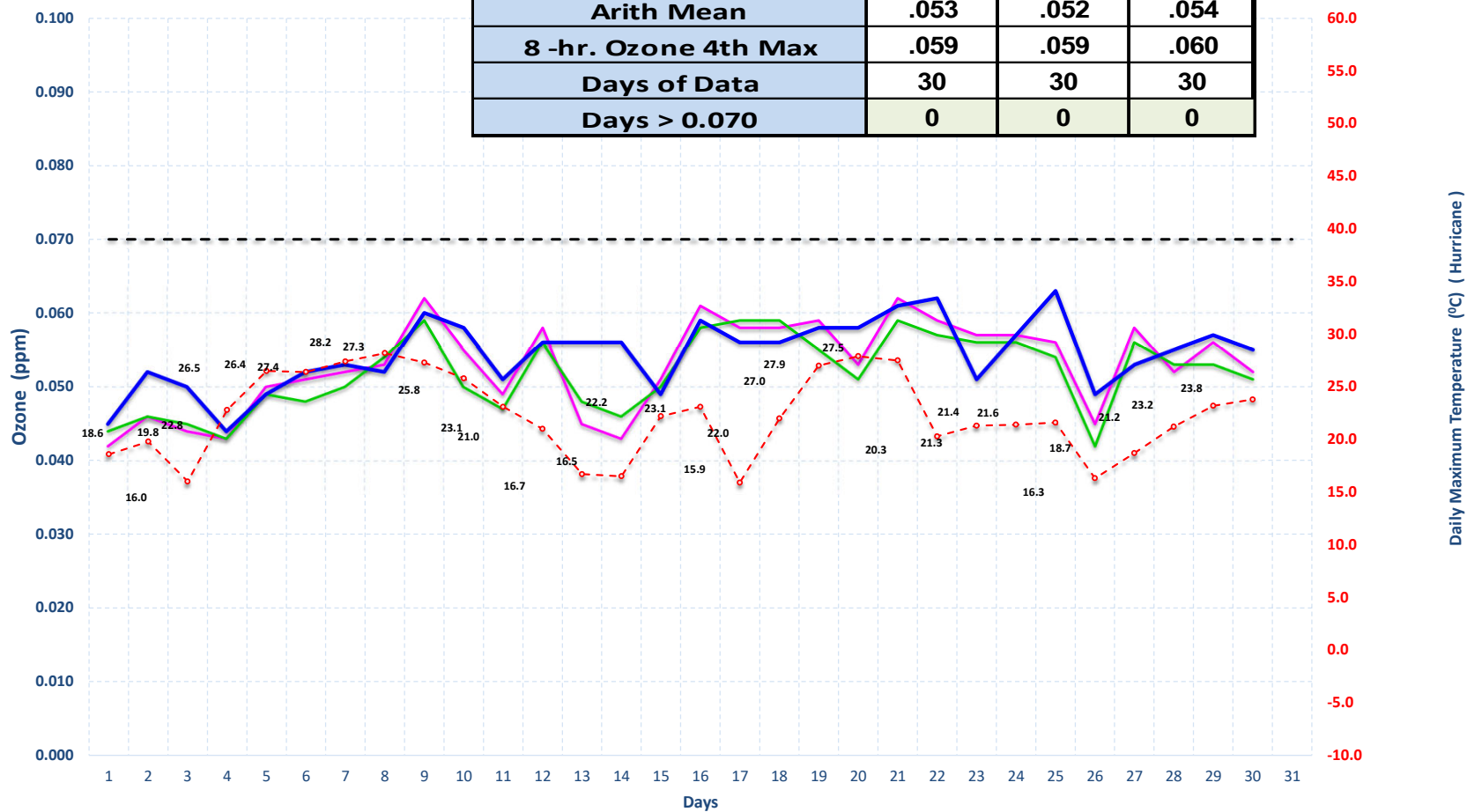
	LN	SF
Arith Mean	.049	.048
8 -hr. Ozone 4th Max	.056	.055
Days of Data	30	30
Days > 0.070	0	0



— Lindon — Spanish Fork — — Exceed. - - - TM

Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026

	EN	HC	M7
Arith Mean	.053	.052	.054
8 -hr. Ozone 4th Max	.059	.059	.060
Days of Data	30	30	30
Days > 0.070	0	0	0



Enoch

Hurricane

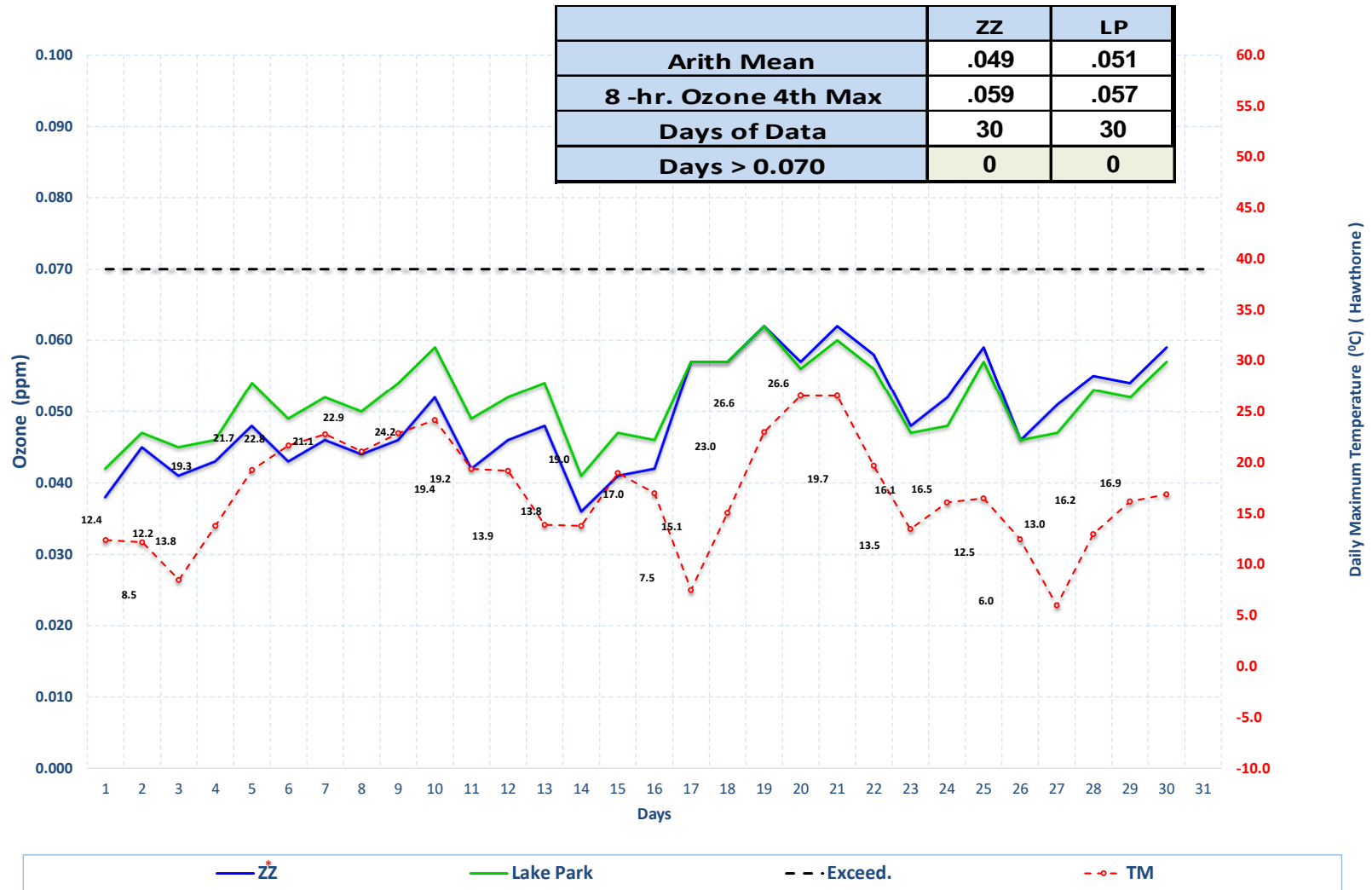
Moab

-- Exceed.

-o- TM

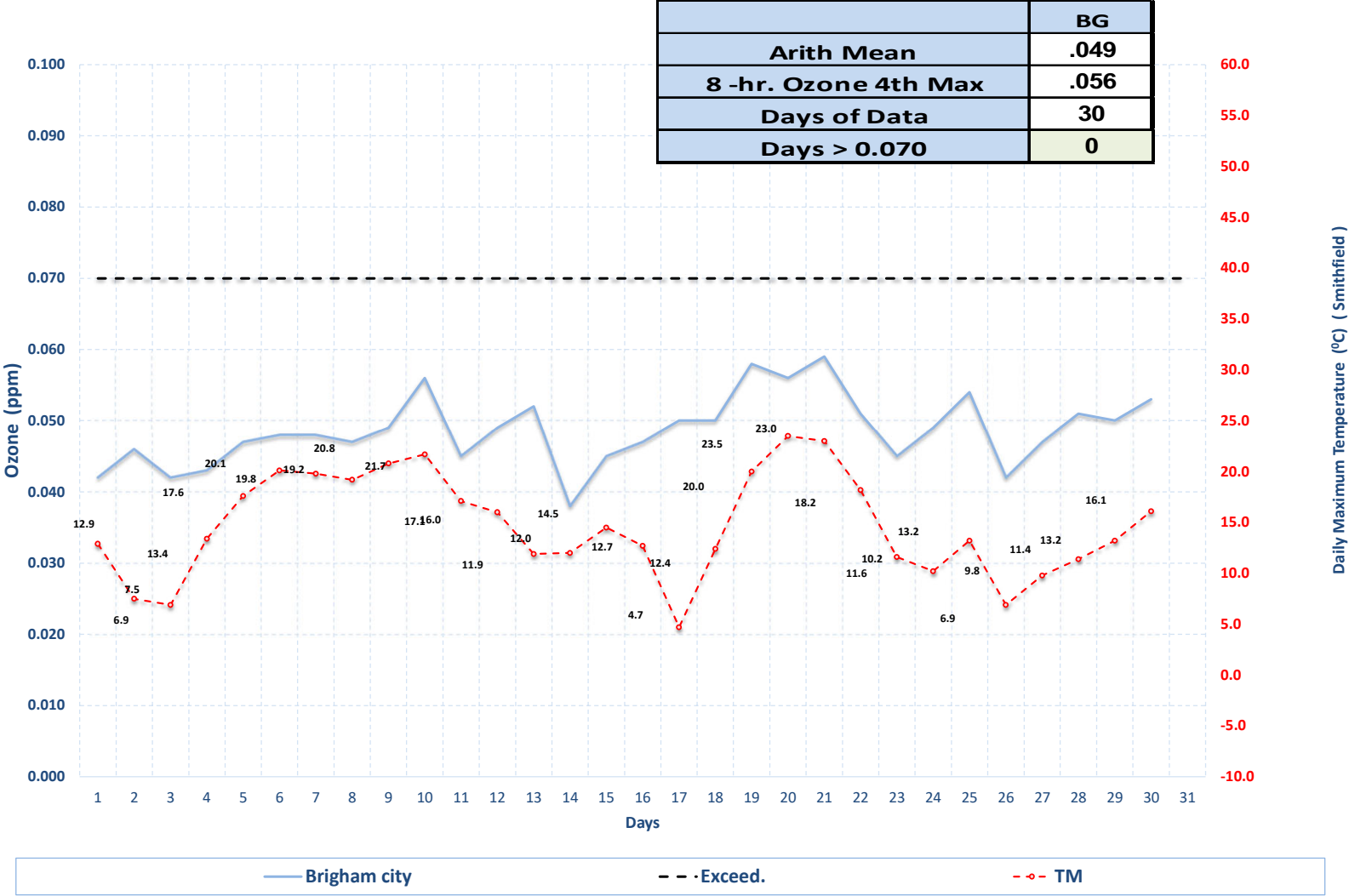
Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026

Stations Monitoring the Inland Port Development

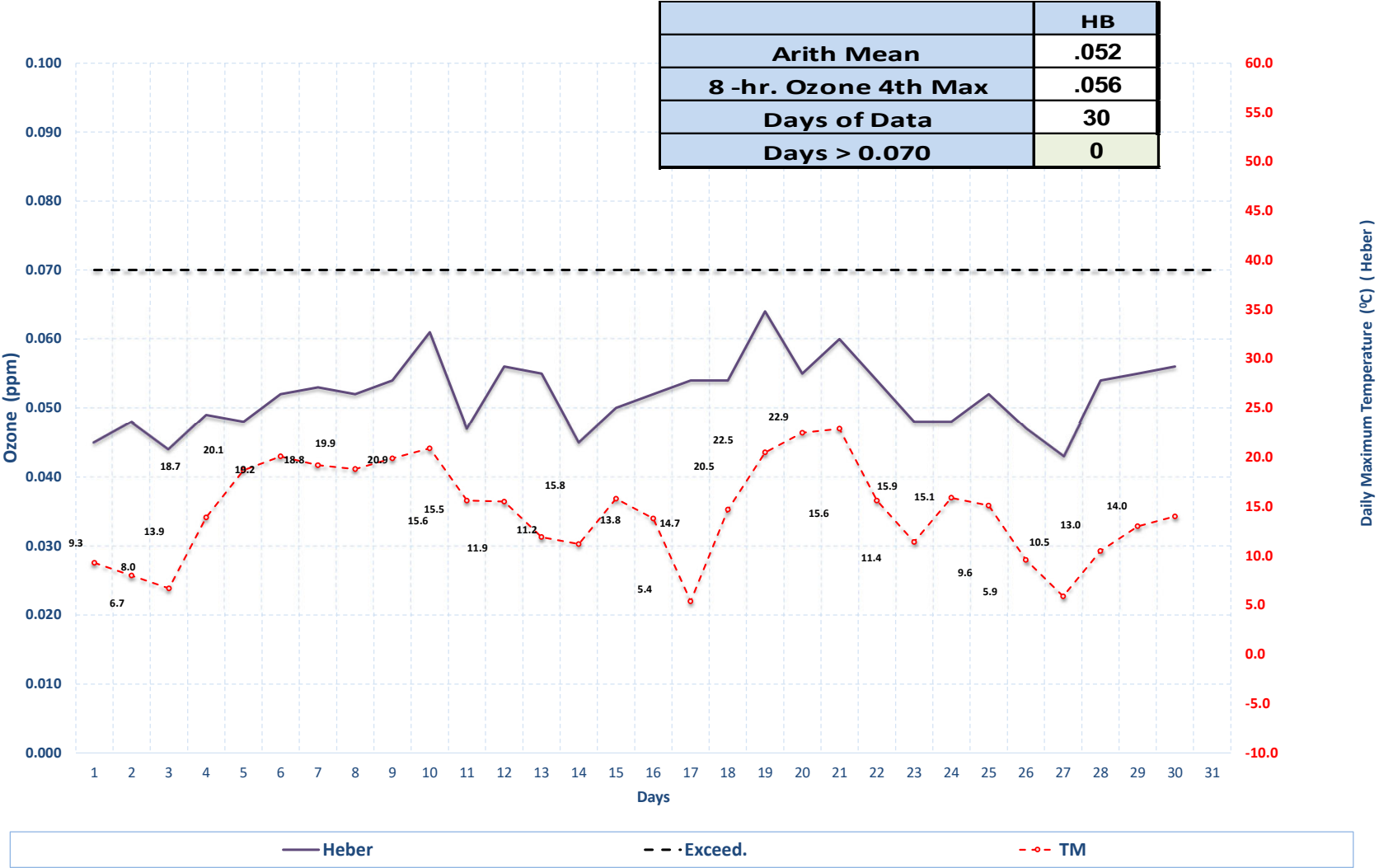


* ZZ is located at the New Utah State Prison (1480 North 8000 West, SLC).
This site was previously named IP

Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026

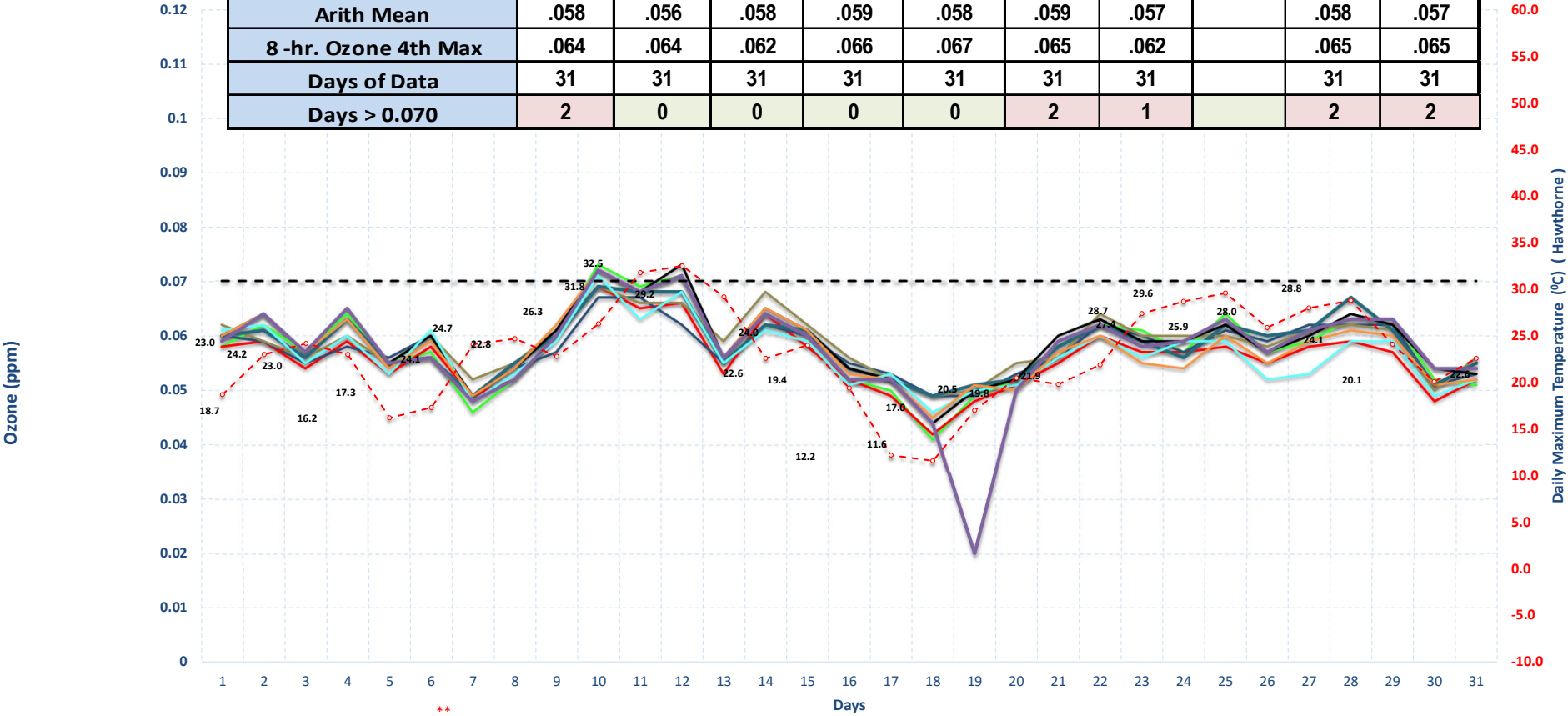


Highest 8-hr Ozone Concentration & Daily Maximum Temperature April 2026



Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

O3 May 2026	BV	CV	ED	H3	HV	HW	NR	RB	RP	EQ
Arith Mean	.058	.056	.058	.059	.058	.059	.057		.058	.057
8 -hr. Ozone 4th Max	.064	.064	.062	.066	.067	.065	.062		.065	.065
Days of Data	31	31	31	31	31	31	31		31	31
Days > 0.070	2	0	0	0	0	2	1		2	2



- Bountiful

Copperview

Erda

Herriman #3

Harrisville

Hawthorne
- Near Road

Red Butte

Rose Park

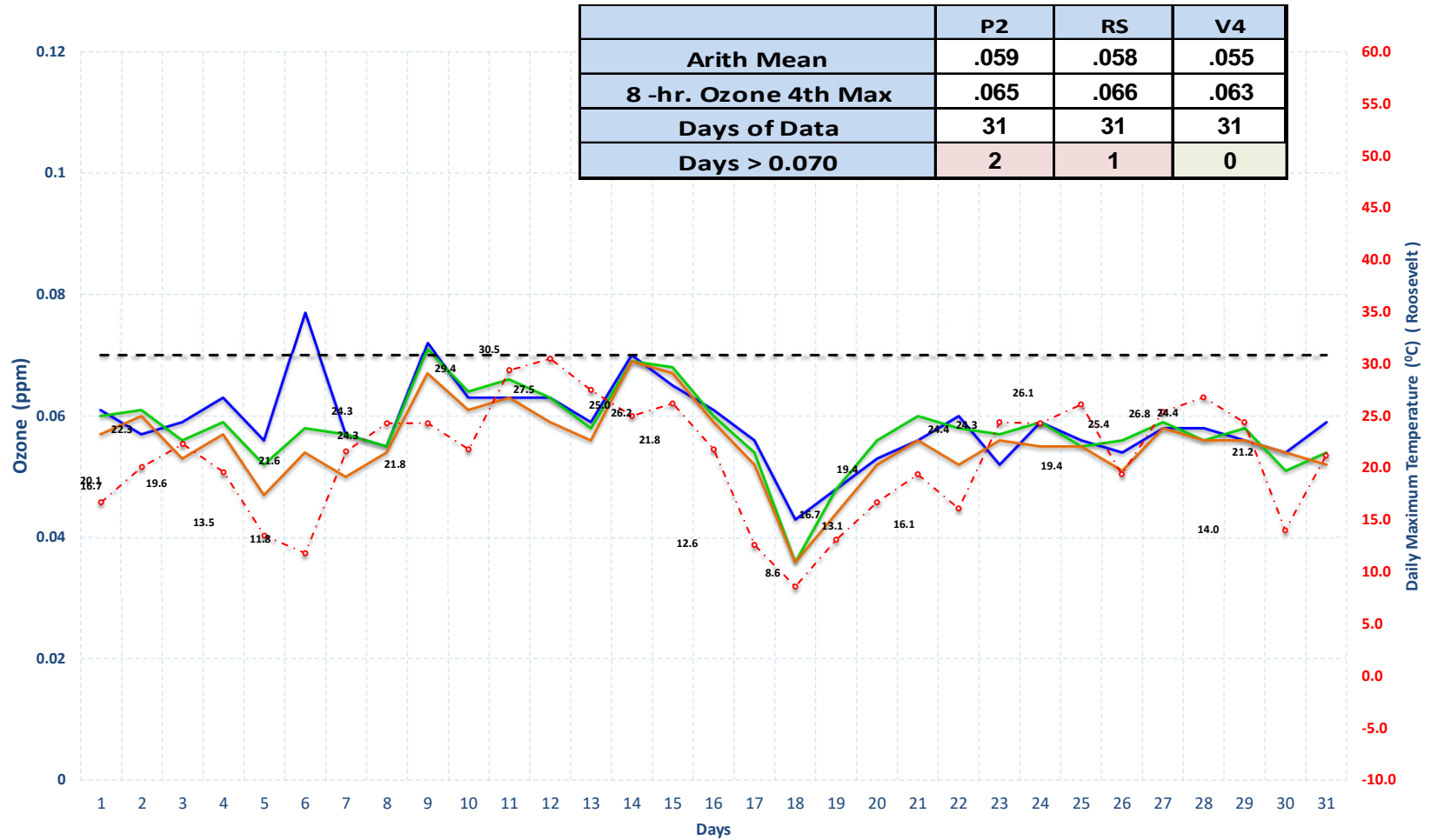
Environmental Quality

Exceed.

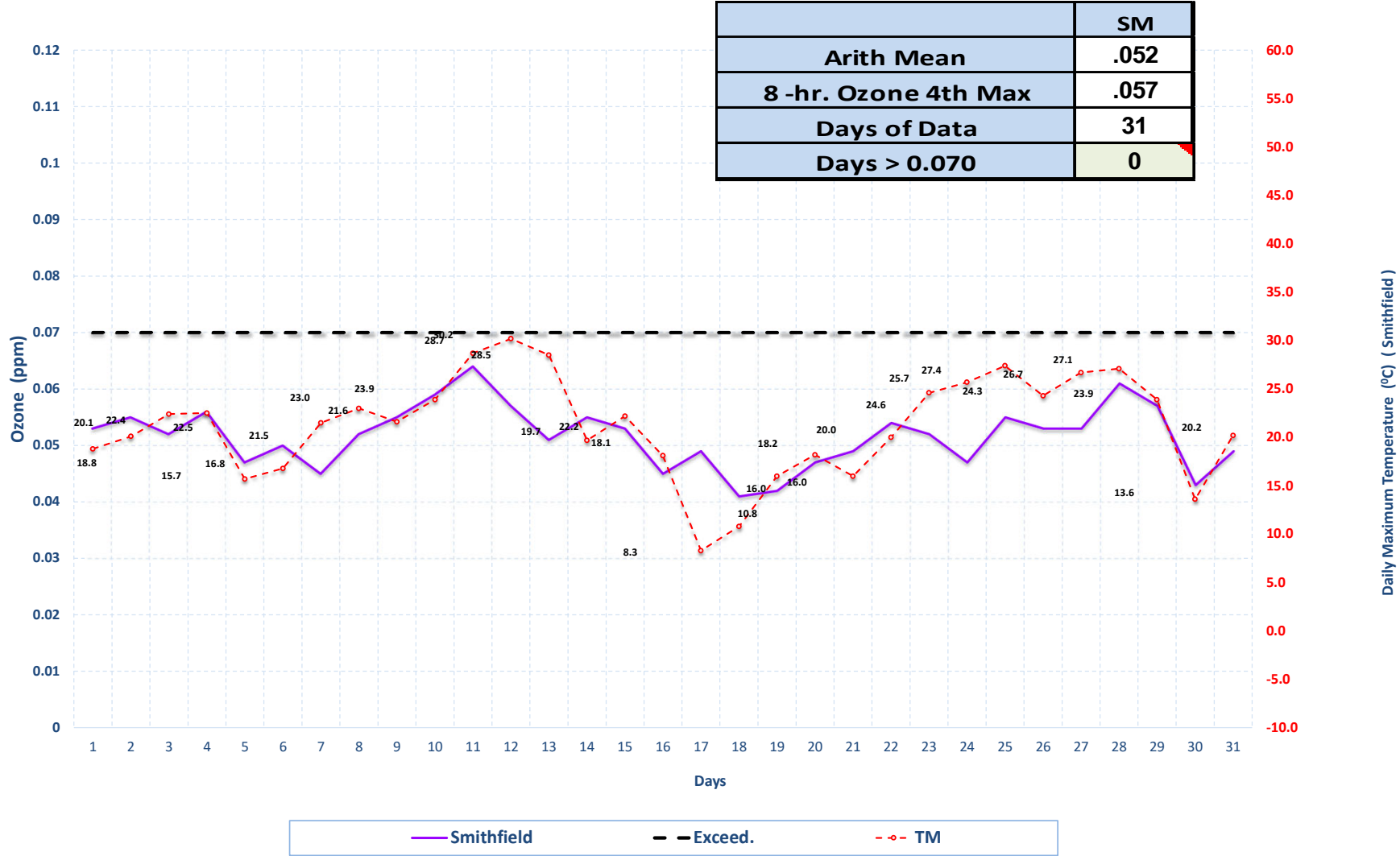
TM

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** Controlling Monitor

Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

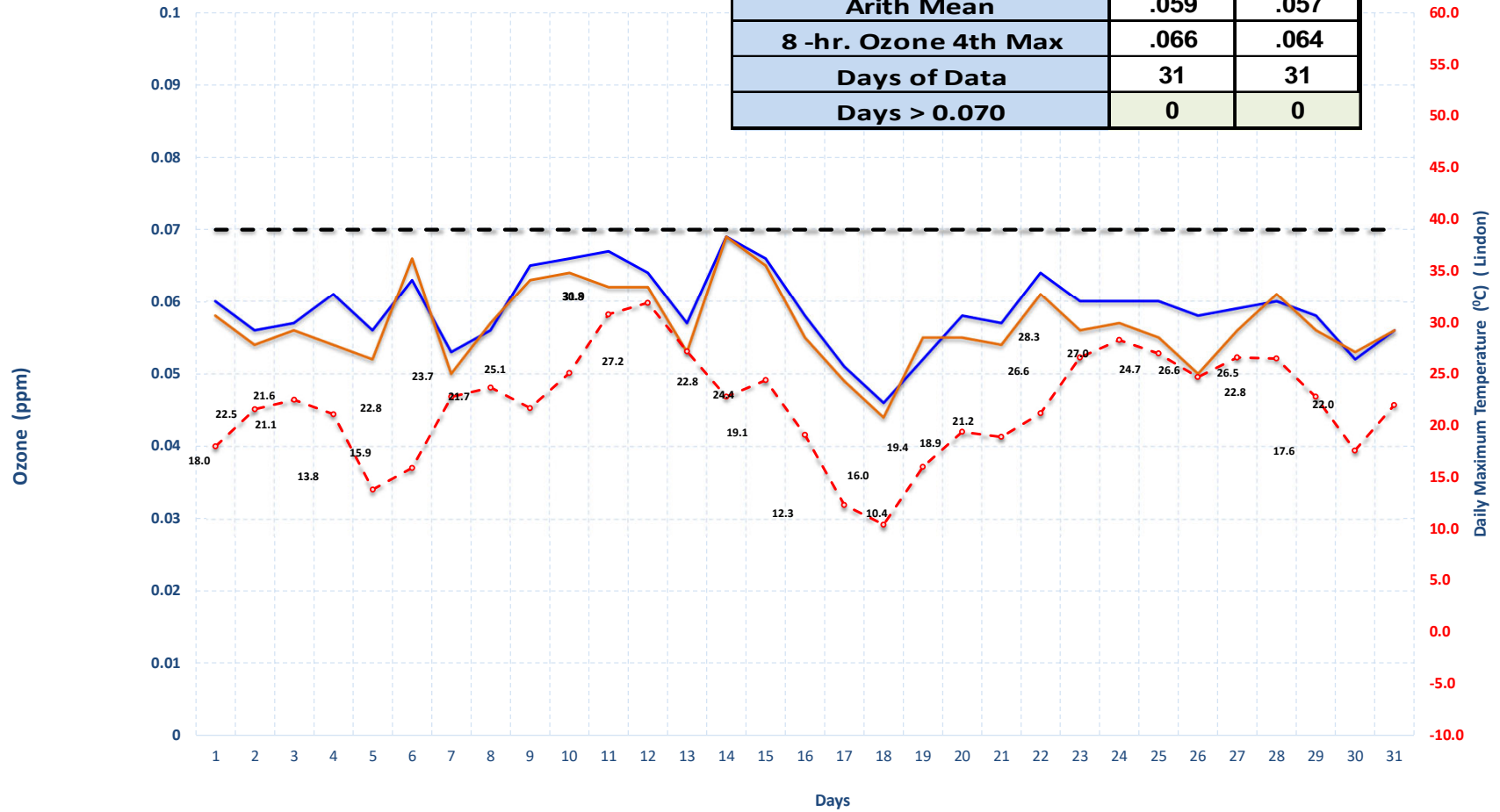


Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026



Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

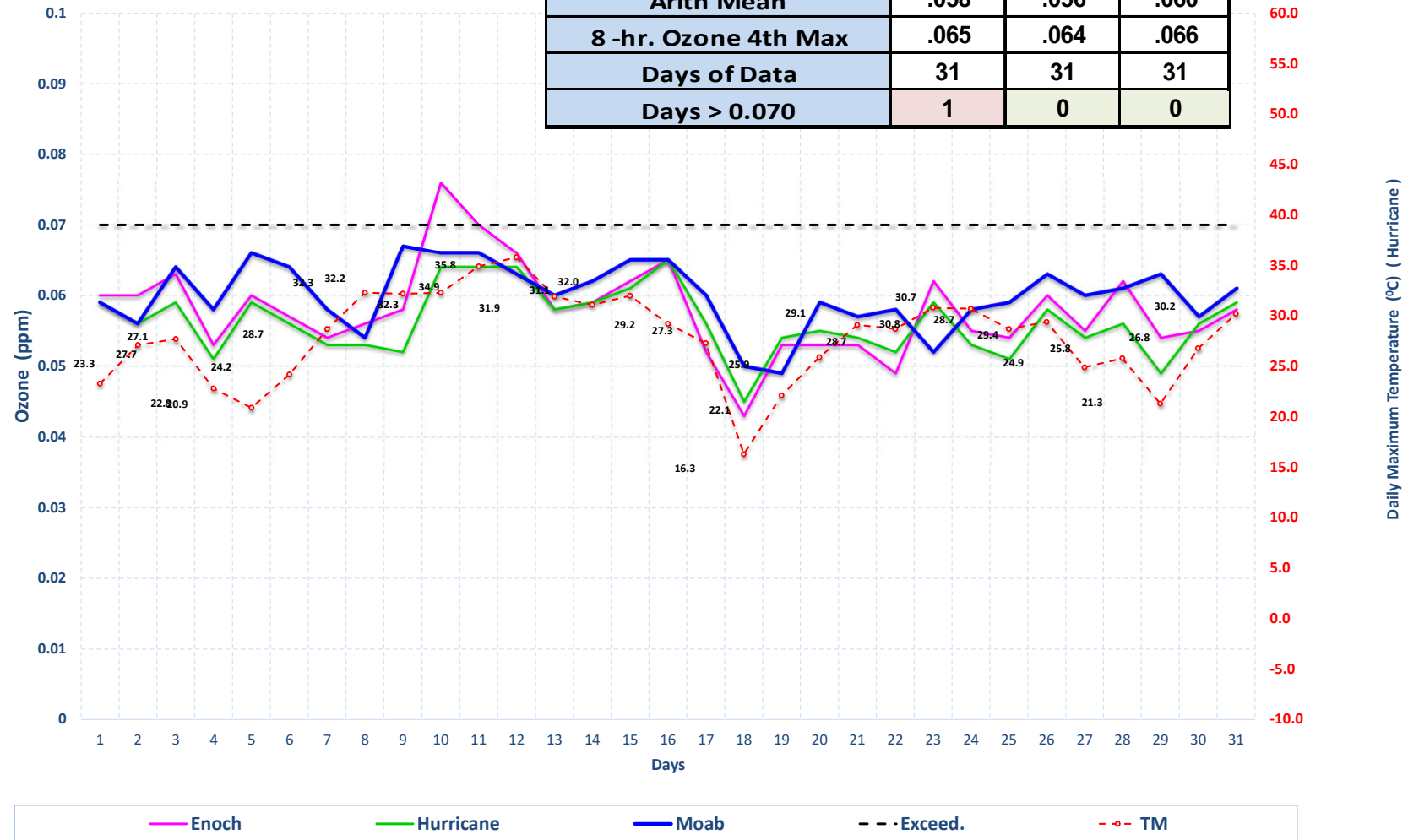
	LN	SF
Arith Mean	.059	.057
8 -hr. Ozone 4th Max	.066	.064
Days of Data	31	31
Days > 0.070	0	0



— Lindon — Spanish Fork - - Exceed. - - o - TM

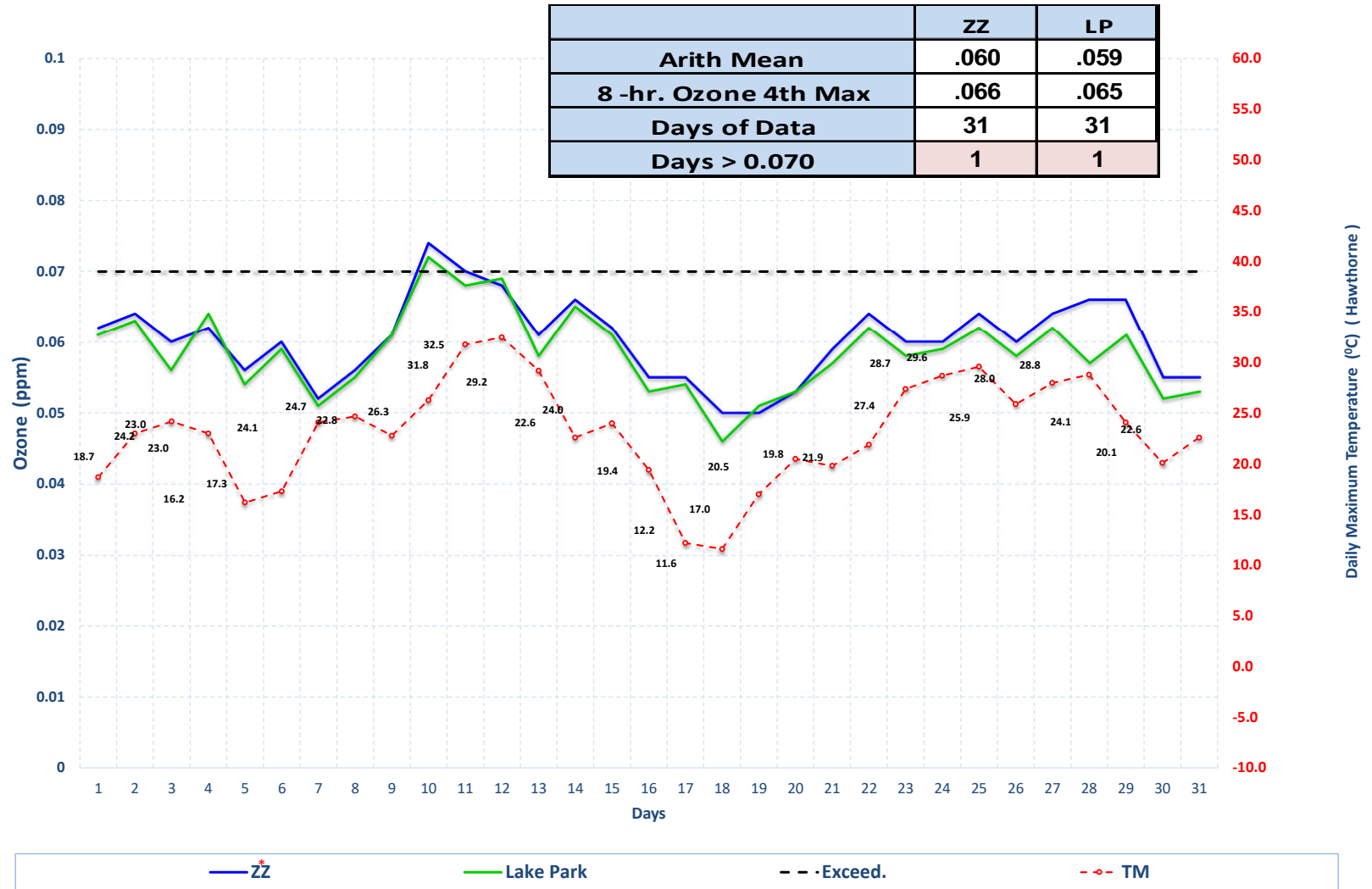
Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

	EN	HC	M7
Arith Mean	.058	.056	.060
8 -hr. Ozone 4th Max	.065	.064	.066
Days of Data	31	31	31
Days > 0.070	1	0	0



Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

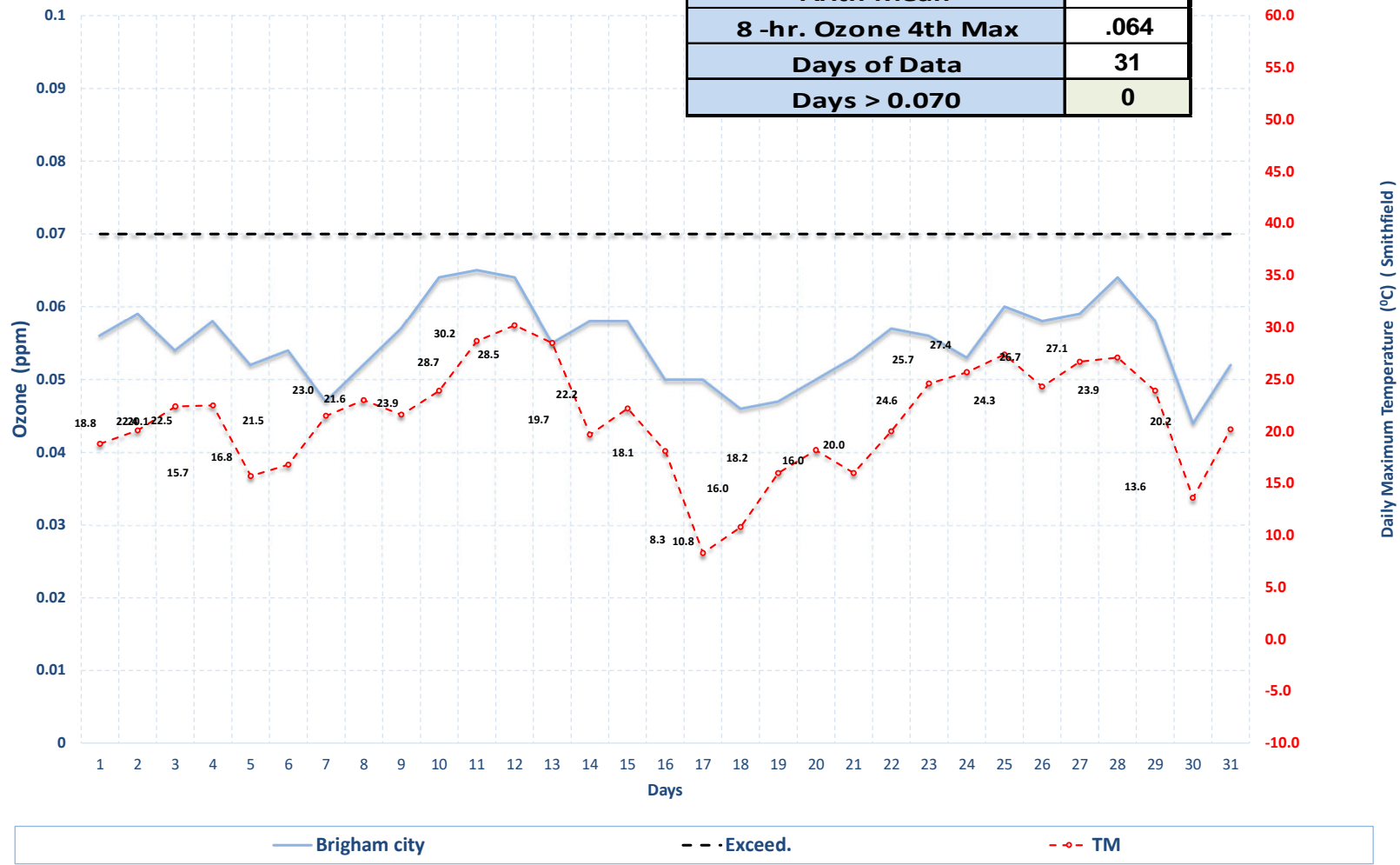
Stations Monitoring the Inland Port Development



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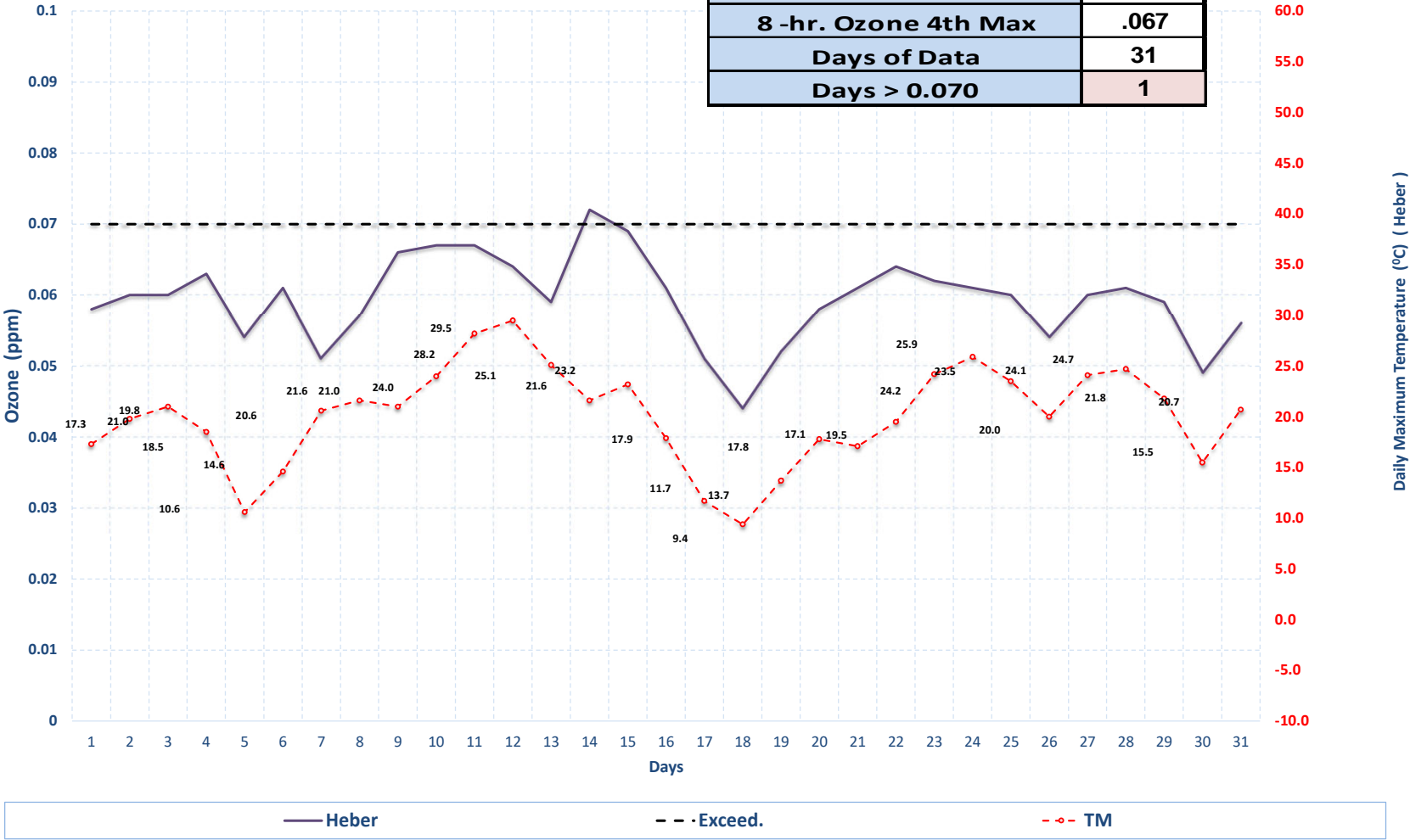
Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

	BG
Arith Mean	.055
8 -hr. Ozone 4th Max	.064
Days of Data	31
Days > 0.070	0

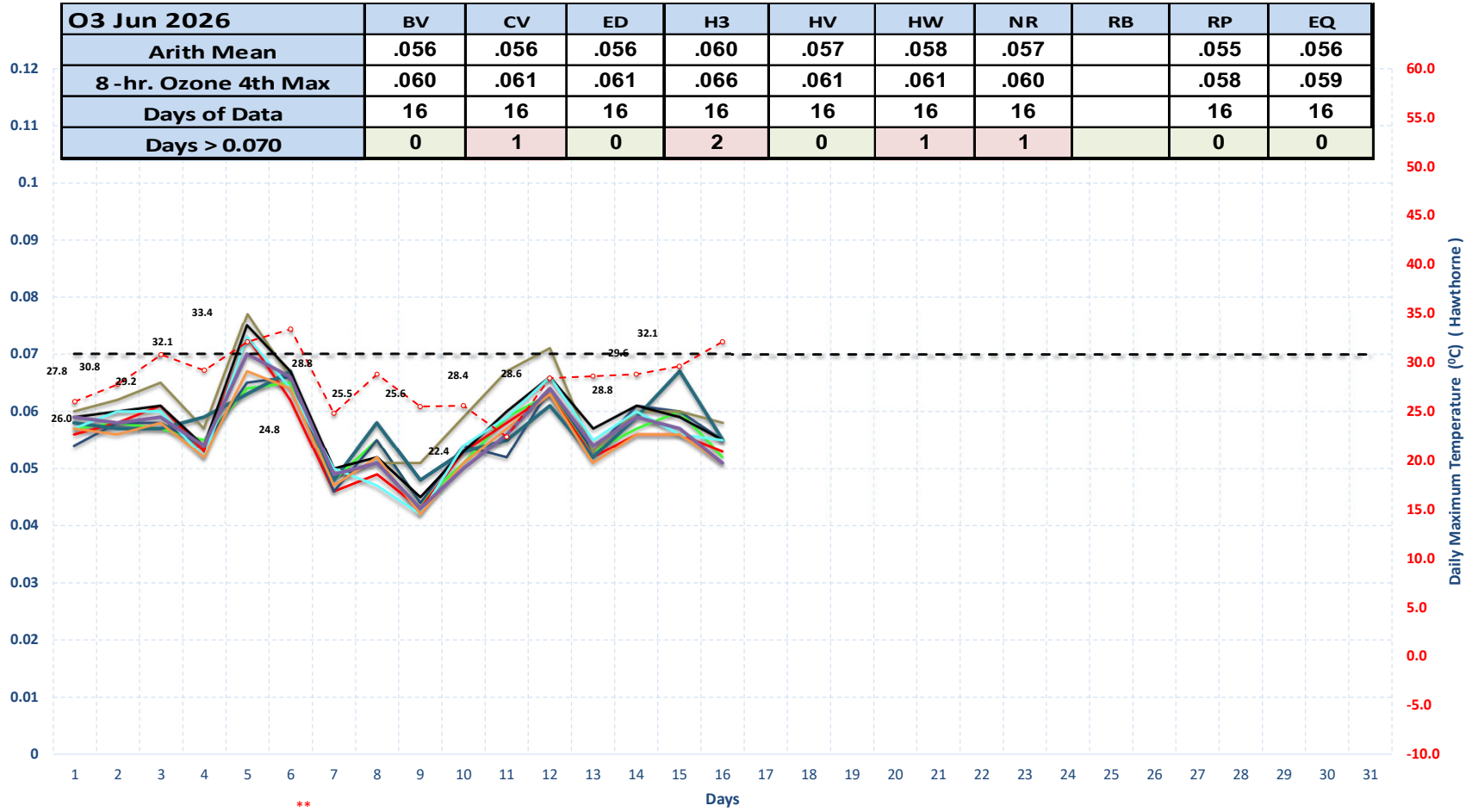


Highest 8-hr Ozone Concentration & Daily Maximum Temperature May 2026

	HB
Arith Mean	.059
8 -hr. Ozone 4th Max	.067
Days of Data	31
Days > 0.070	1



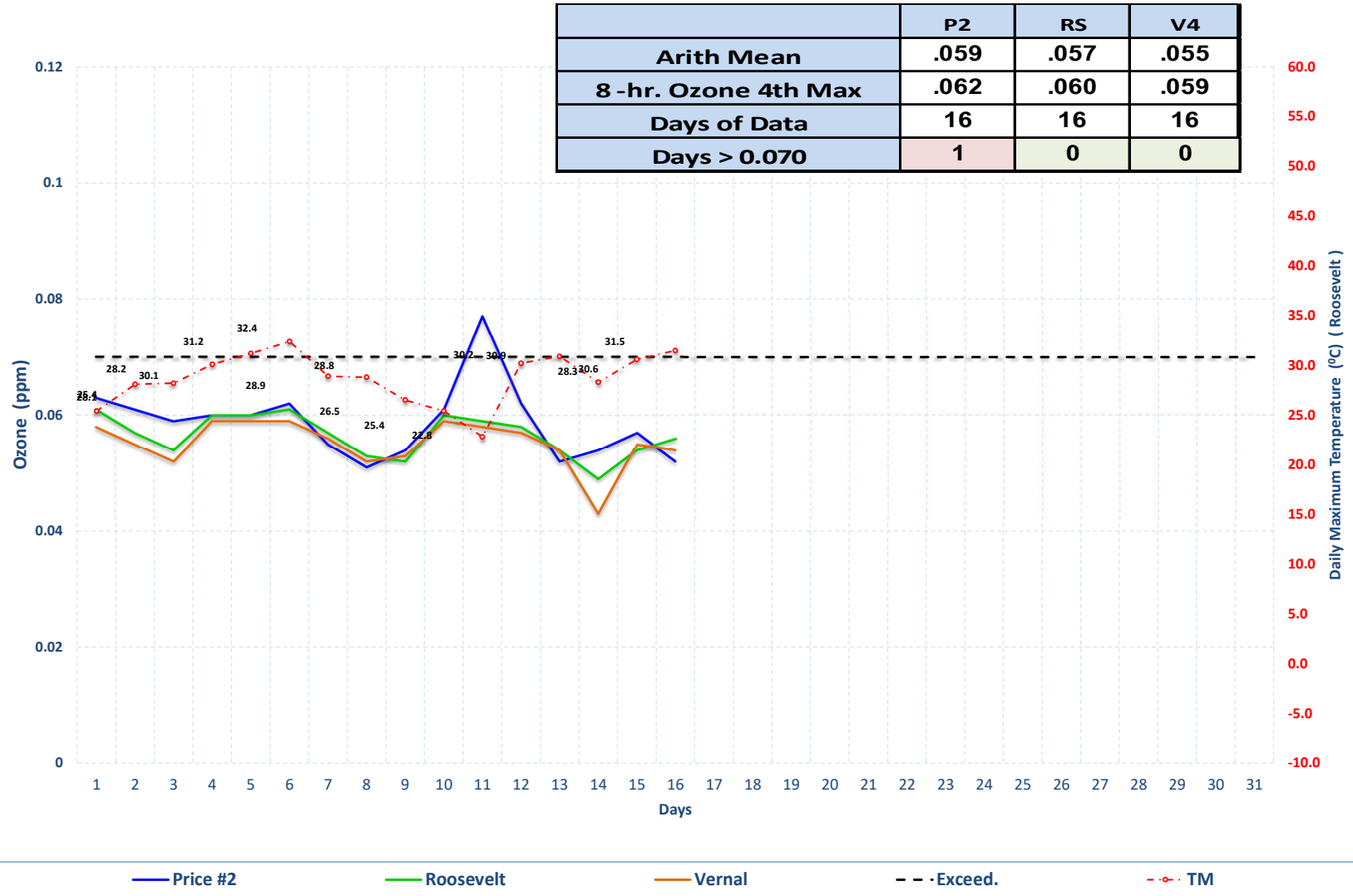
Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026



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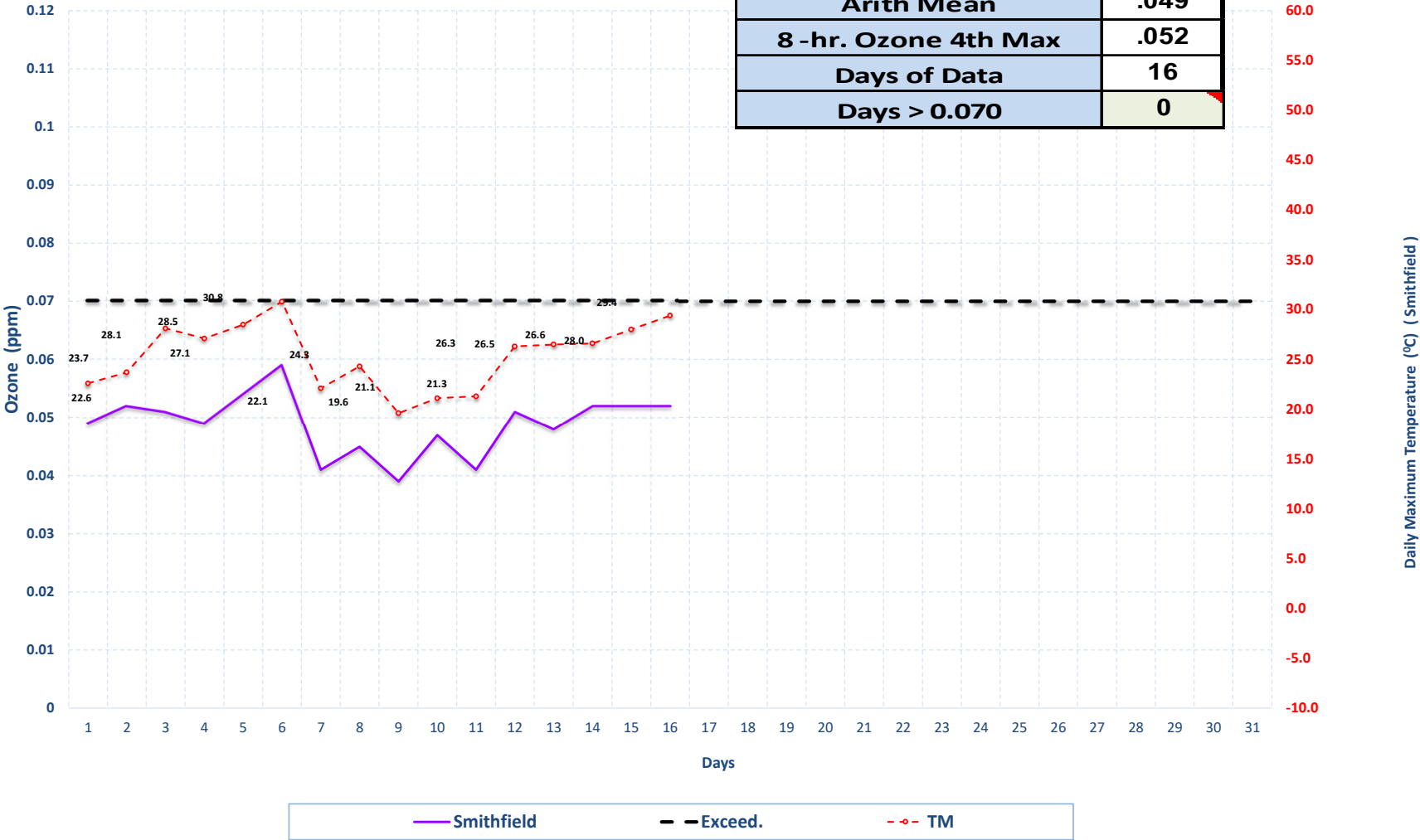
** Controlling Monitor

Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026

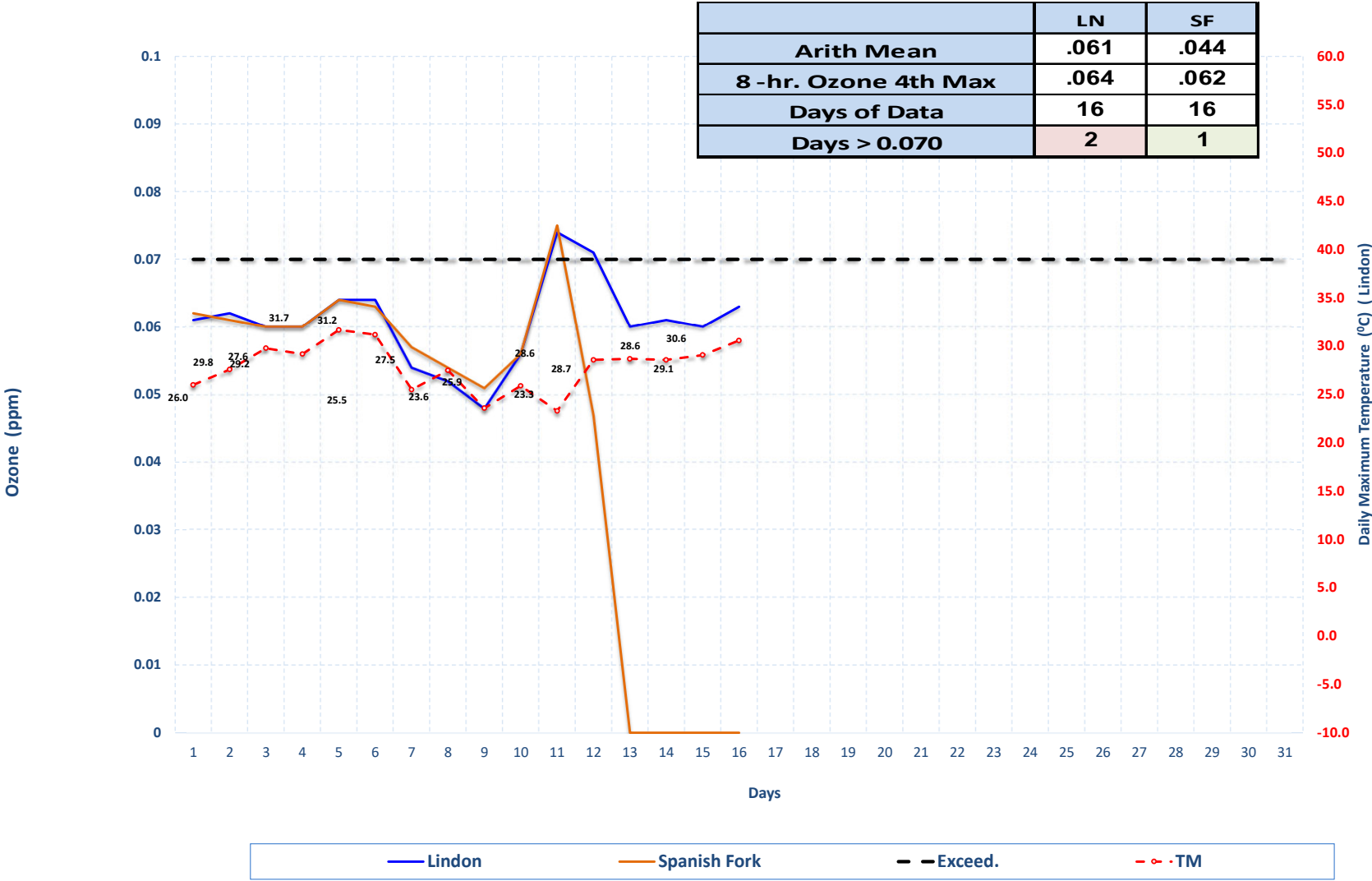


Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026

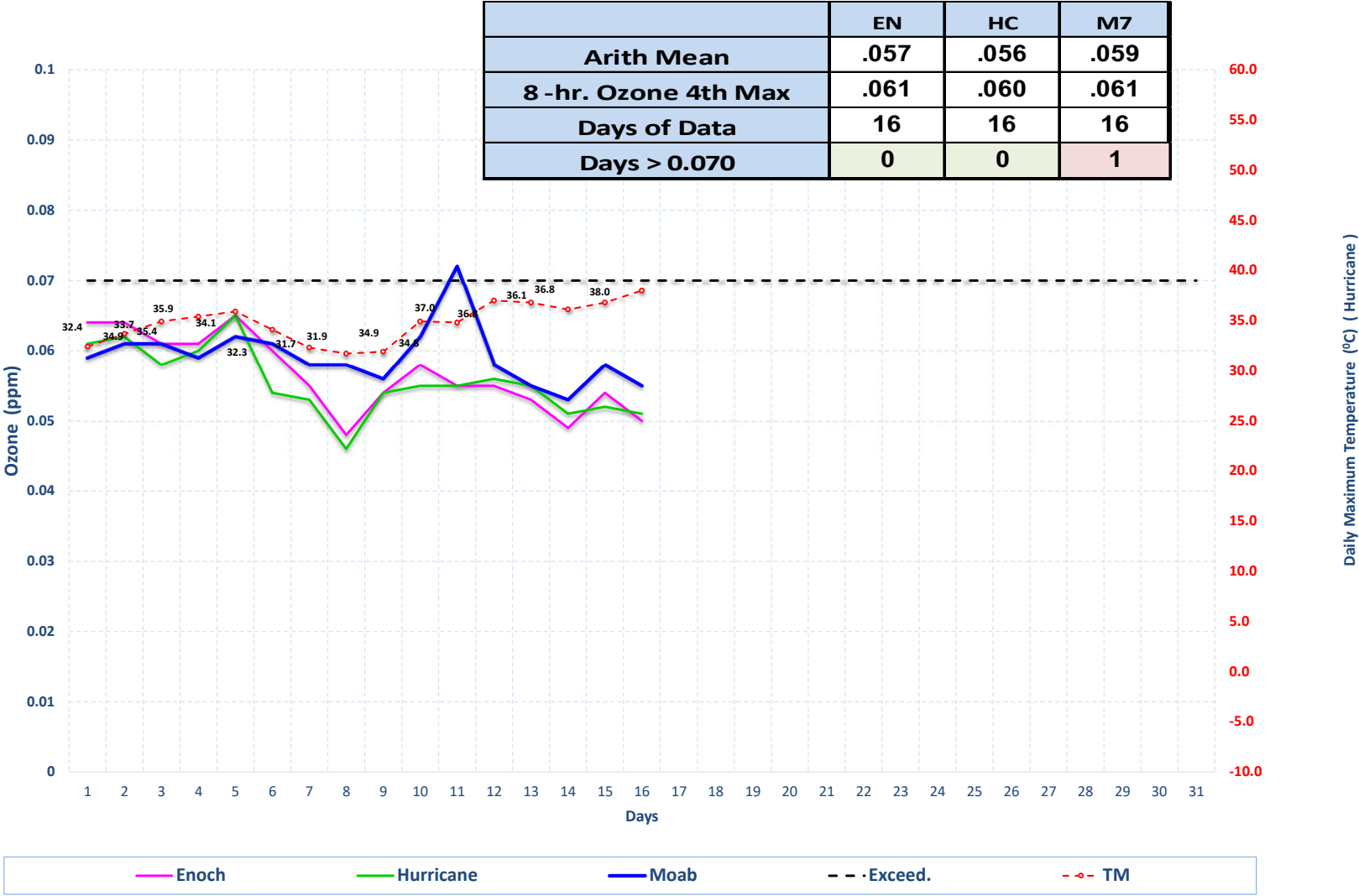
	SM
Arith Mean	.049
8 -hr. Ozone 4th Max	.052
Days of Data	16
Days > 0.070	0



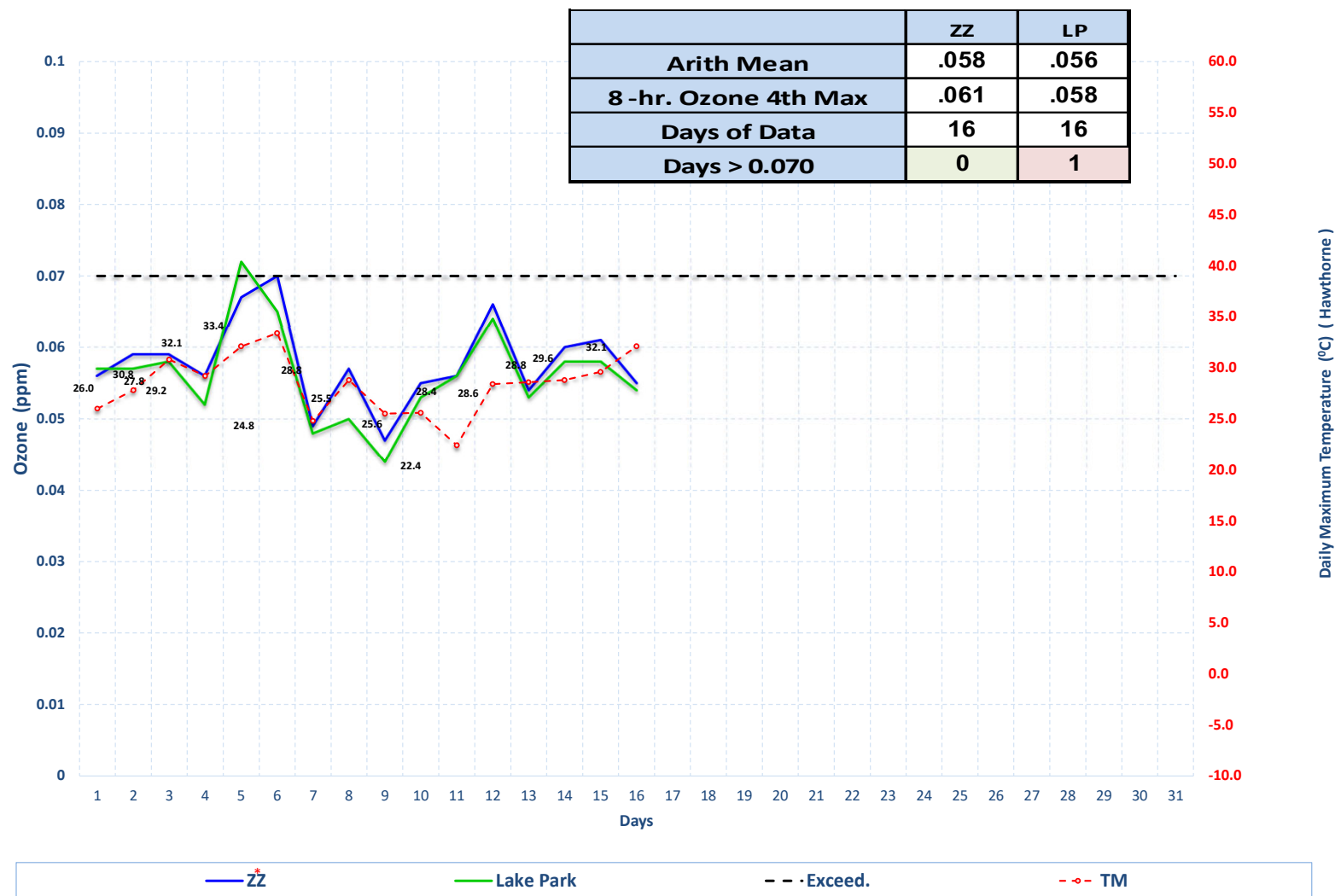
Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026



Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026



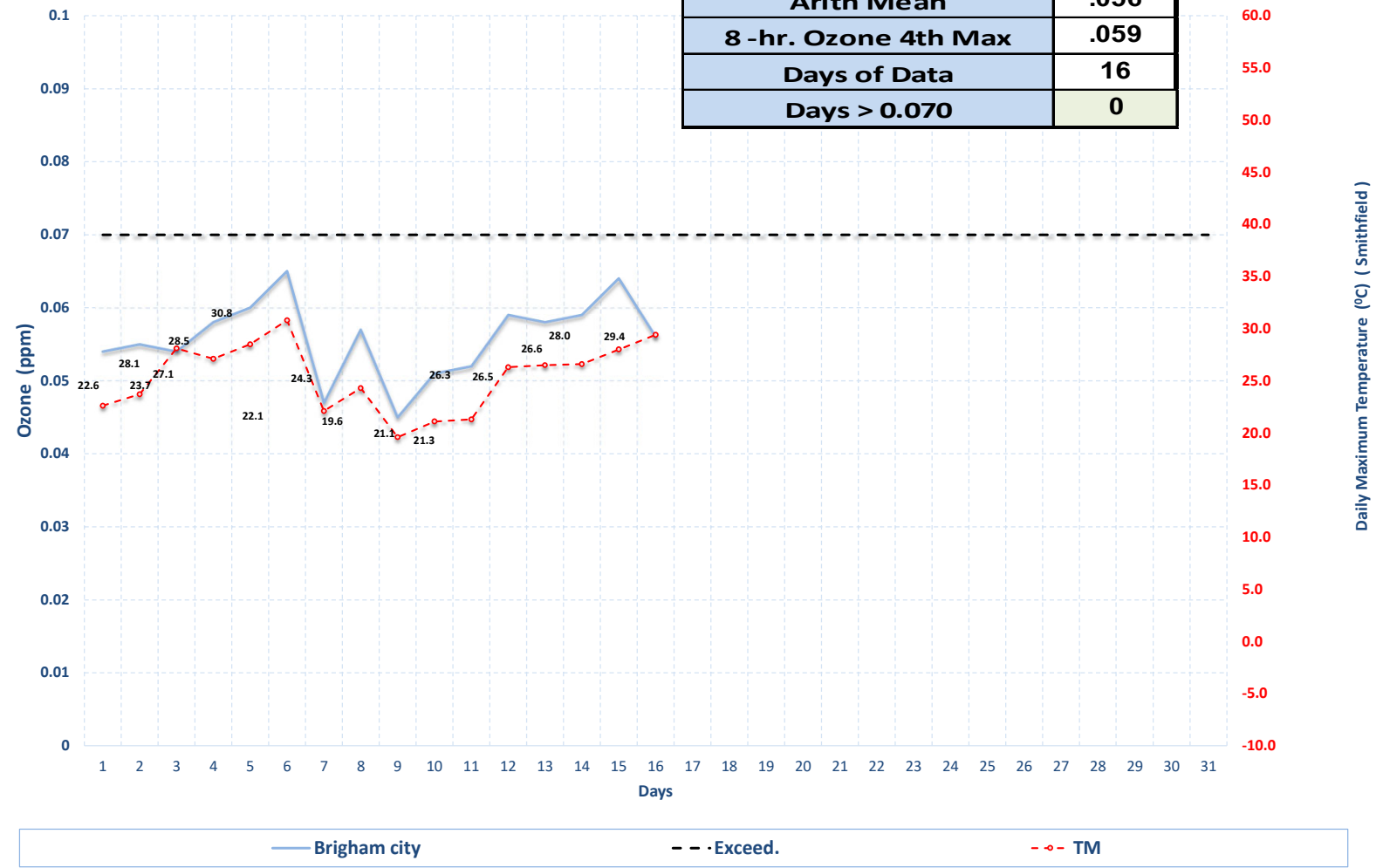
Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026 Stations Monitoring the Inland Port Development



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Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026

	BG
Arith Mean	.056
8 -hr. Ozone 4th Max	.059
Days of Data	16
Days > 0.070	0



Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2026

	HB
Arith Mean	.058
8 -hr. Ozone 4th Max	.063
Days of Data	16
Days > 0.070	0

