



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

Air Quality Board
Randal S. Martin, *Chair*
John Rasband, *Vice-Chair*
L. Scott Baird
Kevin R. Cromar
Cassady Kristensen
Erin Mendenhall
Arnold W. Reitze Jr
William C. Stringer
Bryce C. Bird,
Executive Secretary

DAQ-068-20

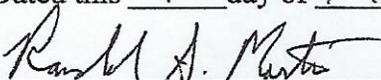
Subject: Utah Air Quality Board Meeting Determination

I, Randal S. Martin, Chair of the Utah Air Quality Board, have determined that the September 2, 2020, meeting of the Utah Air Quality Board will be held electronically without an anchor location.

This determination is based on the following facts:

1. Utah is currently dealing with Covid-19, which has been characterized by the World Health Organization as a pandemic and for which the Governor has declared a state of emergency. See Executive Order 2020-51. Covid-19 is extremely contagious and can be deadly to those who contract it, especially those of advanced age and underlying health conditions.
2. The Agency offices are in Salt Lake County, which is currently in the State's orange moderate risk category. This limits the size of public gatherings to fewer than 20 people and requires the wearing of masks and social distancing. People are encouraged to stay in their homes.
3. A vast majority of Agency staff and the members of the Board are teleworking to avoid unnecessary contact with others.
4. The Board room is insufficient to allow social distancing and reasonably safe accommodation of the Board and the public.
5. The Board uses an electronic platform which allows interested parties to view the meeting, hear discussions, and provide written comment.

Dated this 24th day of August, 2020.



Randal S. Martin, Chair
Utah Air Quality Board



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DAQ-074-20

**UTAH AIR QUALITY BOARD MEETING
FINAL AGENDA
Wednesday, September 2, 2020 - 1:30 p.m.**

It has been determined that this meeting will be held electronically without an anchor location. Interested persons can view electronically, via the Internet at meeting link:

<https://global.gotomeeting.com/join/737495389>

Meeting number: 737-495-389

Join by phone: +1-224-501-3412 US Toll / Access code: 737-495-389

- I. Call-to-Order
- II. Date of the Next Air Quality Board Meeting: October 7, 2020
- III. Approval of the Minutes for the August 5, 2020, Board Meeting.

Informational Item.
Senate Bill 6004, Regulatory Certainty Amendments. Presented by Bryce Bird.
- IV. Propose for Final Adoption: R307-101-2. General Requirements. Definitions. Presented by Mat Carlile and Becky Close.
- V. Propose for Final Adoption: R307-150. Emission Inventories. Presented by Mat Carlile, Catherine Williams, and Cate Youatt.
- VI. Propose for Final Adoption: R307-401. Permit: New and Modified Sources; R307-415-9. Permits: Operating Permit Requirements. Fees for Operating Permits; and R307-801-1. Utah Asbestos Rule. Purpose and Authority. Presented by Mat Carlile, Alan Humpherys, and Dave Beatty.
- VII. Propose for Public Comment: Amendment to Utah State Implementation Plan. Emission Limits and Operating Practices. Section IX, Part H; and R307-110-17. Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits. Presented by Jon Black, Catherine Wyffels, and Becky Close.

VIII. Informational Items.

- A. Performance Audit of the Division of Air Quality. Presented by Bryce Bird.
- B. Air Toxics. Presented by Leonard Wright.
- C. Compliance. Presented by Harold Burge and Rik Ombach.
- D. Monitoring. Presented by Bo Call.
- E. Inland Port Monitors. Presented by Bo Call.
- F. Other Items to be Brought Before the Board.
- G. 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 Larene Wyss, Office of Human Resources at (801) 536-4281, TDD (801) 536-4284 or by email at lwyss@utah.gov.

ITEM 3



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Mitra Basiri Kashanchi
Cassady Kristensen
Erin Mendenhall
Arnold W. Reitze Jr.
William C. Stringer
Bryce C. Bird,
Executive Secretary

UTAH AIR QUALITY BOARD MEETING
August 5, 2020 – 1:30 p.m.
This was an electronic meeting with no anchor location.

DRAFT MINUTES

I. Call-to-Order

Erin Mendenhall called the meeting to order at 1:30 p.m.

Board members present: Randal Martin, John Rasband, Kevin Cromar, Mitra Kashanchi, Cassady Kristensen, Erin Mendenhall, Arnold Reitze, William Stringer

Excused: Scott Baird

Executive Secretary: Bryce Bird

II. Annual Election of Chair and Vice-Chair.

Mr. Bird opened nominations for Chair of the Air Quality Board.

- Erin Mendenhall nominates Randal Martin for Chair of the Air Quality Board. Kevin Cromar seconds. No other nominations were made. Erin Mendenhall motioned to close nominations. Cassady Kristensen seconds. The motion to approve Randal Martin as Chair of the Air Quality Board was unanimously approved.

Randal Martin opened nominations for Vice-Chair of the Air Quality Board.

- Cassady Kristensen nominates John Rasband for Vice-Chair of the Air Quality Board. Mitra Kashanchi seconds. No other nominations were made. Mitra Kashanchi motioned to close nominations. Erin Mendenhall seconds. The motion to approve John Rasband as Vice-Chair of the Air Quality Board was unanimously approved.

III. Date of the Next Air Quality Board Meeting: September 2, 2020

Ms. Kashanchi announced that she has accepted another position out of state. Mr. Bird stated that the Governor’s office has been notified and the process to fill Ms. Kashanchi’s position on the Board will begin.

1
2 Ms. Mendenhall thanked Ms. Kashanchi for her exceptional service on the Board where she brought
3 unique ideas and considerations that expanded the good work of the Board.
4

5 **IV. Approval of the Minutes for June 3, 2020, Board Meeting.**
6

- 7
 - Arnold Reitze motioned to approve the minutes as amended. Cassady Kristensen seconded. The
8 Board approved unanimously.
9

10 **V. Propose for Final Adoption: R307-410. Permits: Emissions Impact Analysis. Modeling of**
11 **Criteria Pollutant Impacts in Attainment Areas. Presented by Liam Thrailkill and Catherine**
12 **Wyffels.**
13

14 Liam Thrailkill, Rules Coordinator at DAQ, stated that staff proposed at the May 2020 Board meeting
15 an amendment to R307-410-4 to add a PM_{2.5} modeling threshold for attainment areas. The proposed
16 modeling threshold of 10 tons per year is the PM_{2.5} significant emissions rate for direct emissions of
17 primary PM_{2.5} as established by EPA in 40 CFR 51.166(b)(23). DAQ uses significant emission rates as
18 the modeling threshold for both major and minor sources. This revision will apply to both major and
19 minor sources in attainment areas. The public comment period ran from June 1, 2020, through July 2,
20 2020. No Comments were received and no public hearing was requested. Staff recommends that the
21 Board adopt R307-410-4, Permits: Emission Impact Analysis, Modeling of Criteria Pollutant Impacts
22 in Attainment Areas, as proposed.
23

- 24
 - Kevin Cromar motioned to adopt R307-410 as proposed. Arnold Reitze seconded. The Board
25 approved unanimously.
26

27 **VI. Propose for Public Comment: Amend R307-230. NO_x Emission Limits for Natural Gas-Fired**
28 **Water Heaters. Presented by Liam Thrailkill and Glade Sowards.**
29

30 Liam Thrailkill, Rules Coordinator at DAQ, stated that staff is proposing an amendment to R307-230
31 to maintain the efficacy of the rule and to assist affected parties in finding compliant water heaters.
32 During the 2017 General Session, the Utah Legislature established NO_x emissions limits for natural gas
33 fired water heaters. Water heaters that meet these emissions limits are commonly referred to as “ultra-
34 low NO_x” models. This rule was initially created and made effective in 2017 as a result of this
35 legislation. In the 2020 General Session, the Legislature amended state statute with House Bill 374 to
36 establish an exemption to the ultra-low NO_x emissions limits for certain water heaters with a heat input
37 of less than or equal to 75,000 BTUs per hour. The amendment allows for a person to sell or install a
38 natural gas-fired water heater with an emission rate greater than the limits established in statute if there
39 is not available for purchase in the United States a water heater that has a heat input of equal BTUs per
40 hour as the unit being replaced that meets the ultra-low NO_x emissions limits.
41

42 To ensure the established NO_x emission limit is not undermined by this exemption and to assist both
43 sellers and installers of water heaters in determining whether ultra-low NO_x models are available for a
44 specific BTU rating, staff is proposing an amendment to R307-230 to require written approval from the
45 division director on a form provided by the division. The form will provide the division with the heat
46 input rating of the water heater being replaced and staff will then use the information to identify
47 whether an ultra-low NO_x model is available for a given heat rating. If found to be unavailable, the
48 exemption would then be approved by the director. Staff recommends the Board propose for public
49 comment, amended R307-230, NO_x Emission Limits for Natural Gas-Fired Water Heaters. Staff then
50 responded to questions from the Board.
51

1 If a consumer had to purchase a ultra-low NOx water heater from another part of the country, wouldn't
2 that be cost prohibitive and do you anticipate that to be a problem? Staff responded that most big box
3 home building stores such as Home Depot or Lowes have ultra-low NOx water heaters available for
4 almost all the BTU ratings, with the 65,000 BTU water heaters being an exception. If needed, the box
5 stores can order the water heater for the consumer.
6

7 Do you have a sense for how many exemptions will be requested per year? Staff responded that not at
8 this time because the sales data is not available. Modeled availability data shows that between 40,000
9 and 50,000 BTU is a common range for most of the available units.
10

11 If someone goes through the exemption process to get written approval, do they have to go through the
12 process every time they sell a single unit or will they get a broad-based exemption for a set period of
13 time? Staff responded that the idea is identifying whether ultra-low NOx model exists in a given BTU
14 rating, and so the process is pretty broad so that the process is not prolonged.
15

16 Municipalities have building codes for installation of water heaters. How will the compliance process
17 work? Compliance staff are currently developing the enforcement process. The distributor is probably
18 the best route to go for compliance. This is also part of and references parts of the state building code.
19

- 20 • Arnold Reitze motioned to propose amendment R307-230, NOx Emission Limits for Natural Gas-
21 Fired Water Heaters, for public comment. Erin Mendenhall seconded. The Board approved
22 unanimously.
23

24 **VII. Propose for Public Comment: New Rule R307-240. Prescribed Burning. Presented by Liam** 25 **Thraillkill and Joel Karmazyn.** 26

27 Liam Thraillkill, Rules Coordinator at DAQ, stated that staff is proposing new rule R307-240,
28 Prescribed Burning, to align the air quality rules with the state statute as amended by House Bill 92
29 (H.B. 92) in the 2020 General Session. H.B. 92 requires the division director to, under certain
30 circumstances, approve prescribed burns that do not meet the clearing index requirement set forth in
31 R307-204, Emission Standards. The bill further states that the director shall approve of a prescribed
32 burn in wildland and non-wildland areas when a land manager submits documentation specified in
33 Section 19-2a-105. This new rule incorporates the state statute by reference and reiterates the need for
34 director approval prior to conducting prescribed burning or pile burning when the U.S. National
35 Weather Service clearing index in the area of the burn is less than 500. Staff recommends the Board
36 propose new rule R307-240 for public comment. Staff then responded to questions from the Board.
37

38 Who is a land manager? Staff responded that land managers are both federal and state land managers,
39 the Bureau of Land Management, the Forest Service, and Bureau of Indian Affairs (BIA) on the federal
40 side, and the Department of Natural Resources (DNR) on the state side. The DNR also conducts
41 prescribed burning for private land holders in accordance with all rules.
42

43 Under what circumstances would the director not approve one of these permits? Mr. Bird explained
44 that this bill went through many iterations. In final discussions, it was decided that a staff member
45 from the Forest Service will run dispersion model for each fire to demonstrate that the planned
46 prescribed burning or pile burning will not cause an exceedance of the standard, will minimize the long
47 range transport of smoke, protect visibility, or wouldn't impact a populated area. There may be some
48 instances where the choice of public interest and fire safety outweighs the public interest in healthy
49 protection. For instance, approval may be given if a cabin area adjacent to a forested area which has
50 critical fuel which is likely to go up in flames.
51

1 In regard to lands in Indian County, under the memorandum of understanding under our Smoke
2 Management Plan, the land managers for those areas within the State of Utah borders will still need to
3 file a permit through the online process with goes through the UDAQ.
4

5 Staff added that the division will also need to prepare guidance for land managers on how to meet all
6 the requirements. Mr. Cromar asked if the Board can receive an update in about a year covering items
7 such as how the process is working, how often requests are made, or how effective is the
8 communication to local communities has been. Staff agreed.
9

- 10 ● Kevin Cromar motioned that the Board propose new rule R307-240 for public comment. Mitra
11 Kashanchi seconded. The Board approved unanimously.
12

13 **VIII. Propose for Approval: Five-Year Review: R307-122. General Requirements: Heavy Duty** 14 **Vehicle Tax Credit. Presented by Liam Thrailkill.** 15

16 Liam Thrailkill, Rules Coordinator at DAQ, stated that Utah Code 63G-3-305 requires each agency to
17 review and justify its rules within five years of a rule's original effective date or within five years of
18 the filing of the last five-year review. This review process is not a time to revise or amend the rules,
19 but only to verify that the rule is still necessary and allowed under state and federal law. As part of this
20 process, we are required to identify any comments received since the last five-year review of each rule.
21 Staff has received no comments for the five-year review for R307-122. Staff has reviewed R307-122
22 and has determined that it should be continued. Staff recommends that the Board continue R307-122
23 by approving the attached form to be filed with the Office of Administrative Rules.
24

- 25 ● Erin motioned to approve the five-year review of R307-122. John Rasband seconded. The Board
26 approved unanimously.
27

28 **IX. Informational Items.** 29

30 **A. Air Toxics. Presented by Leonard Wright.** 31

32 **B. Compliance. Presented by Harold Burge and Rik Ombach.** 33

34 Staff updated that the U.S. Magnesium cases have been consolidated and there was also a change
35 in the judge. The case is moving forward in the legal process and is currently in the discovery
36 phase.
37

38 **C. Monitoring. Presented by Bo Call.** 39

40 Bo Call, Air Monitoring Section Manager at DAQ, gave an update on the monitoring graphs. A
41 number of sites along the Wasatch Front have exceeded the ozone standard, 70 parts per billion
42 (ppb), on four or more days. Rose Park had 8 days, Bountiful had 7 days, and Hawthorne had 5
43 days as examples. The three year average for ozone along the Wasatch Front is 76.3 ppb.
44

45 **D. Other Items to be Brought Before the Board.** 46

47 Ms. Kashanchi was thanked for her service on the Air Quality Board.
48

49 **E. Board Meeting Follow-up Items.** 50

51 Meeting adjourned at 2:19 p.m.

Informational Item

Senate Bill 6004,
Regulatory Certainty
Amendments

30 Section 1. Section **19-1-207** is enacted to read:

31 **19-1-207. Regulatory certainty to support economic recovery.**

32 (1) On or before June 30, 2021, the Air Quality Board or the Water Quality Board may
33 not make, amend, or repeal a rule related to air or water quality pursuant to this title, if formal
34 rulemaking was not initiated on or before July 1, 2020, unless the rule constitutes:

35 (a) a state rule related to a federally-delegated program;

36 (b) a rule mandated by statute to be made, amended, or repealed on or before July 1,
37 2020; or

38 (c) subject to Subsection (2), a rule that is necessary because failure to make, amend, or
39 repeal the rule will:

40 (i) cause an imminent peril to the public health, safety, or welfare;

41 (ii) cause an imminent budget reduction because of budget restraints or federal
42 requirements;

43 (iii) place the agency in violation of federal or state law; or

44 (iv) fail to provide regulatory relief.

45 (2) In addition to complying with Title 63G, Chapter 3, Utah Administrative
46 Rulemaking Act, the department shall report to the Administrative Rules Review Committee as
47 to whether the need to act meets the requirements of Subsection (1)(c).

48 (3) On or after the effective date of this bill but on or before June 30, 2021, the Air
49 Quality Board, Division of Air Quality, Water Quality Board, or Division of Water Quality
50 may not impose a new fee or increase a fee related to air or water quality pursuant to this title
51 or rules made under this title.

52 (4) Only the Legislature may extend the time limitations of this section.

53 (5) Notwithstanding the other provisions of this section, this section does not apply to a
54 rule, fee, or fee increase to the extent that the rule, fee, or fee increase applies to an activity in a
55 county of the first or second class.

56 (6) Notwithstanding the other provisions of this section, the agencies may engage with
57 stakeholders in the process of discussing, developing, and drafting a rule, fee, or fee increase

58 on or after July 1, 2020, but on or before June 30, 2021.

59 Section 2. Section **40-6-22** is enacted to read:

60 **40-6-22. Regulatory certainty to support economic recovery.**

61 (1) On or before June 30, 2021, the board or division may not make, amend, or repeal a
62 rule pursuant to this title, if formal rulemaking was not initiated on or before July 1, 2020,
63 unless the rule constitutes:

64 (a) a state rule related to a federally-delegated program;

65 (b) a rule mandated by statute to be made, amended, or repealed on or before July 1,
66 2020; or

67 (c) subject to Subsection (2), a rule that is necessary because failure to make, amend, or
68 repeal the rule will:

69 (i) cause an imminent peril to the public health, safety, or welfare;

70 (ii) cause an imminent budget reduction because of budget restraints or federal
71 requirements;

72 (iii) place the agency in violation of federal or state law; or

73 (iv) fail to provide regulatory relief.

74 (2) In addition to complying with Title 63G, Chapter 3, Utah Administrative
75 Rulemaking Act, the board or division shall report to the Administrative Rules Review
76 Committee as to whether the need to act meets the requirements of Subsection (1)(c).

77 (3) On or after the effective date of this bill but on or before June 30, 2021, the board
78 or division may not impose a new fee or increase a fee pursuant to this title or rules made under
79 this title.

80 (4) Only the Legislature may extend the time limitations of this section.

81 (5) Notwithstanding the other provisions of this section, this section does not apply to a
82 rule, fee, or fee increase to the extent that the rule, fee, or fee increase applies to an activity in a
83 county of the first or second class.

84 (6) Notwithstanding the other provisions of this section, the agencies may engage with
85 stakeholders in the process of discussing, developing, and drafting a rule, fee, or fee increase

86 on or after July 1, 2020, but on or before June 30, 2021.

87 Section 3. **Effective date.**

88 If approved by two-thirds of all the members elected to each house, this bill takes effect
89 upon approval by the governor, or the day following the constitutional time limit of Utah
90 Constitution, Article VII, Section 8, without the governor's signature, or in the case of a veto,
91 the date of veto override.

92 Section 4. **Revisor instructions.**

93 The Legislature intends that the Office of Legislative Research and General Counsel, in
94 preparing the Utah Code database for publication, replace the references in Subsections
95 [19-1-207\(3\)](#) and [40-6-22\(3\)](#) from "the effective date of this bill" to the bill's actual effective
96 date.

ITEM 4



State of Utah

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DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-070-20

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Becky Close, Environmental Scientist

DATE: August 19, 2020

SUBJECT: PROPOSE FOR FINAL ADOPTION: R307-101-2. General Requirements. Definitions.

At the June 3, 2020, Air Quality Board meeting, the Board proposed for public comment amendments to R307-101-2, General Requirements, Definitions, to define the PM_{2.5} maintenance areas.

The DAQ has submitted all Clean Air Act (CAA) requirements to the Environmental Protection Agency for the 2006 24-hr PM_{2.5} nonattainment areas to be redesignated to attainment. The maintenance areas must be defined so that the rules approved as part of the State Implementation Plan continue to apply throughout the maintenance period. Defining the maintenance areas in R307-101 means that all R307 references to PM_{2.5} maintenance areas will apply to the new maintenance areas, which prevents backsliding under CAA Section 110(1).

Recommendation: Staff recommends that the Board adopt R307-101 General Requirements, Definitions.

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

2 **R307-101. General Requirements.**

3 **R307-101-2. Definitions.**

4 Except where specified in individual rules, definitions in
5 Section R307-101-2 are applicable to all rules adopted by the Air
6 Quality Board.

7 "Actual Emissions" means the actual rate of emissions of a
8 pollutant from an emissions unit determined as follows:

9 (1) In general, actual emissions as of a particular date
10 shall equal the average rate, in tons per year, at which the unit
11 actually emitted the pollutant during a two-year period which
12 precedes the particular date and which is representative of normal
13 source operations. The director shall allow the use of a
14 different time period upon a determination that it is more
15 representative of normal source operation. Actual emissions shall
16 be calculated using the unit's actual operating hours, production
17 rates, and types of materials processed, stored, or combusted
18 during the selected time period.

19 (2) The director may presume that source-specific allowable
20 emissions for the unit are equivalent to the actual emissions of
21 the unit.

22 (3) For any emission unit, other than an electric utility
23 steam generating unit specified in (4), which has not begun normal
24 operations on the particular date, actual emissions shall equal
25 the potential to emit of the unit on that date.

26 (4) For an electric utility steam generating unit (other
27 than a new unit or the replacement of an existing unit) actual
28 emissions of the unit following the physical or operational change
29 shall equal the representative actual annual emissions of the
30 unit, provided the source owner or operator maintains and submits
31 to the director, on an annual basis for a period of 5 years from
32 the date the unit resumes regular operation, information
33 demonstrating that the physical or operational change did not
34 result in an emissions increase. A longer period, not to exceed
35 10 years, may be required by the director if the director
36 determines such a period to be more representative of normal
37 source post-change operations.

38 "Acute Hazardous Air Pollutant" means any noncarcinogenic
39 hazardous air pollutant for which a threshold limit value -
40 ceiling (TLV-C) has been adopted by the American Conference of
41 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
42 Values for Chemical Substances and Physical Agents and Biological
43 Exposure Indices, (2009)."

44 "Air pollutant" means a substance that qualifies as an air
45 pollutant as defined in 42 U.S.C. Sec. 7602.

1 "Air Pollutant Source" means private and public sources of
2 emissions of air pollutants.

3 "Air Pollution" means the presence of an air pollutant in the
4 ambient air in such quantities and duration and under conditions
5 and circumstances, that are injurious to human health or welfare,
6 animal or plant life, or property, or would unreasonably interfere
7 with the enjoyment of life or use of property as determined by the
8 standards, rules and regulations adopted by the Air Quality Board
9 (Section 19-2-104).

10 "Allowable Emissions" means the emission rate of a source
11 calculated using the maximum rated capacity of the source (unless
12 the source is subject to enforceable limits which restrict the
13 operating rate, or hours of operation, or both) and the emission
14 limitation established pursuant to R307-401-8.

15 "Ambient Air" means that portion of the atmosphere, external
16 to buildings, to which the general public has access. (Section 19-
17 2-102(4)).

18 "Appropriate Authority" means the governing body of any city,
19 town or county.

20 "Atmosphere" means the air that envelops or surrounds the
21 earth and includes all space outside of buildings, stacks or
22 exterior ducts.

23 "Authorized Local Authority" means a city, county, city-
24 county or district health department; a city, county or
25 combination fire department; or other local agency duly designated
26 by appropriate authority, with approval of the state Department of
27 Health; and other lawfully adopted ordinances, codes or
28 regulations not in conflict therewith.

29 "Board" means Air Quality Board. See Section 19-2-102(8)(a).

30 "Breakdown" means any malfunction or procedural error, to
31 include but not limited to any malfunction or procedural error
32 during start-up and shutdown, which will result in the
33 inoperability or sudden loss of performance of the control
34 equipment or process equipment causing emissions in excess of
35 those allowed by approval order or Title R307.

36 "BTU" means British Thermal Unit, the quantity of heat
37 necessary to raise the temperature of one pound of water one
38 degree Fahrenheit.

39 "Calibration Drift" means the change in the instrument meter
40 readout over a stated period of time of normal continuous
41 operation when the VOC concentration at the time of measurement is
42 the same known upscale value.

43 "Carbon Adsorption System" means a device containing
44 adsorbent material (e.g., activated carbon, aluminum, silica gel),
45 an inlet and outlet for exhaust gases, and a system for the proper

1 disposal or reuse of all VOC adsorbed.

2 "Carcinogenic Hazardous Air Pollutant" means any hazardous
3 air pollutant that is classified as a known human carcinogen (A1)
4 or suspected human carcinogen (A2) by the American Conference of
5 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
6 Values for Chemical Substances and Physical Agents and Biological
7 Exposure Indices, (2009)."

8 "Chargeable Pollutant" means any regulated air pollutant
9 except the following:

10 (1) carbon monoxide;

11 (2) any pollutant that is a regulated air pollutant solely
12 because it is a Class I or II substance subject to a standard
13 promulgated or established by Title VI of the Act, Stratospheric
14 Ozone Protection; or

15 (3) any pollutant that is a regulated air pollutant solely
16 because it is subject to a standard or regulation under Section
17 112(r) of the Act, Prevention of Accidental Releases.

18 "Chronic Hazardous Air Pollutant" means any noncarcinogenic
19 hazardous air pollutant for which a threshold limit value - time
20 weighted average (TLV-TWA) having no threshold limit value -
21 ceiling (TLV-C) has been adopted by the American Conference of
22 Governmental Industrial Hygienists (ACGIH) in its "Threshold Limit
23 Values for Chemical Substances and Physical Agents and Biological
24 Exposure Indices, (2009)."

25 "Clean Air Act" means federal Clean Air Act as found in 42
26 U.S.C. Chapter 85.

27 "Clean Coal Technology" means any technology, including
28 technologies applied at the precombustion, combustion, or post
29 combustion stage, at a new or existing facility which will achieve
30 significant reductions in air emissions of sulfur dioxide or
31 oxides of nitrogen associated with the utilization of coal in the
32 generation of electricity, or process steam which was not in
33 widespread use as of November 15, 1990.

34 "Clean Coal Technology Demonstration Project" means a project
35 using funds appropriated under the heading "Department of Energy-
36 Clean Coal Technology," up to a total amount of \$2,500,000,000 for
37 commercial demonstration of clean coal technology, or similar
38 projects funded through appropriations for the Environmental
39 Protection Agency. The Federal contribution for a qualifying
40 project shall be at least 20 percent of the total cost of the
41 demonstration project.

42 "Clearing Index" means an indicator of the predicted rate of
43 clearance of ground level pollutants from a given area. This
44 number is provided by the National Weather Service.

45 "Coating" means a material that can be applied to a substrate

1 and which cures to form a continuous solid film for protective,
2 decorative, or functional purposes. Such materials include, but
3 are not limited to, paints, varnishes, sealants, adhesives,
4 caulks, maskants, inks, and temporary protective coatings.

5 "Commence" as applied to construction of a major source or
6 major modification means that the owner or operator has all
7 necessary pre-construction approvals or permits and either has:

8 (1) begun, or caused to begin, a continuous program of
9 actual on-site construction of the source, to be completed within
10 a reasonable time; or

11 (2) entered into binding agreements or contractual
12 obligations, which cannot be canceled or modified without
13 substantial loss to the owner or operator, to undertake a program
14 of actual construction of the source to be completed within a
15 reasonable time.

16 "Composite vapor pressure" means the sum of the partial
17 pressures of the compounds defined as VOCs.

18 "Condensable PM2.5" means material that is vapor phase at
19 stack conditions, but which condenses and/or reacts upon cooling
20 and dilution in the ambient air to form solid or liquid
21 particulate matter immediately after discharge from the stack.

22 "Compliance Schedule" means a schedule of events, by date,
23 which will result in compliance with these regulations.

24 "Construction" means any physical change or change in the
25 method of operation including fabrication, erection, installation,
26 demolition, or modification of a source which would result in a
27 change in actual emissions.

28 "Control Apparatus" means any device which prevents or
29 controls the emission of any air pollutant directly or indirectly
30 into the outdoor atmosphere.

31 "Department" means Utah State Department of Environmental
32 Quality. See Section 19-1-103(1).

33 "Director" means the Director of the Division of Air Quality.
34 See Section 19-1-103(1).

35 "Division" means the Division of Air Quality.

36 "Electric Utility Steam Generating Unit" means any steam
37 electric generating unit that is constructed for the purpose of
38 supplying more than one-third of its potential electric output
39 capacity and more than 25 MW electrical output to any utility
40 power distribution system for sale. Any steam supplied to a steam
41 distribution system for the purpose of providing steam to a steam-
42 electric generator that would produce electrical energy for sale
43 is also considered in determining the electrical energy output
44 capacity of the affected facility.

45 "Emission" means the act of discharge into the atmosphere of

1 an air pollutant or an effluent which contains or may contain an
2 air pollutant; or the effluent so discharged into the atmosphere.

3 "Emissions Information" means, with reference to any source
4 operation, equipment or control apparatus:

5 (1) information necessary to determine the identity, amount,
6 frequency, concentration, or other characteristics related to air
7 quality of any air pollutant which has been emitted by the source
8 operation, equipment, or control apparatus;

9 (2) information necessary to determine the identity, amount,
10 frequency, concentration, or other characteristics (to the extent
11 related to air quality) of any air pollutant which, under an
12 applicable standard or limitation, the source operation was
13 authorized to emit (including, to the extent necessary for such
14 purposes, a description of the manner or rate of operation of the
15 source operation), or any combination of the foregoing; and

16 (3) A general description of the location and/or nature of
17 the source operation to the extent necessary to identify the
18 source operation and to distinguish it from other source
19 operations (including, to the extent necessary for such purposes,
20 a description of the device, installation, or operation
21 constituting the source operation).

22 "Emission Limitation" means a requirement established by the
23 Board, the director or the Administrator, EPA, which limits the
24 quantity, rate or concentration of emission of air pollutants on a
25 continuous emission reduction including any requirement relating
26 to the operation or maintenance of a source to assure continuous
27 emission reduction (Section 302(k)).

28 "Emissions Unit" means any part of a stationary source which
29 emits or would have the potential to emit any pollutant subject to
30 regulation under the Clean Air Act.

31 "Enforceable" means all limitations and conditions which are
32 enforceable by the Administrator, including those requirements
33 developed pursuant to 40 CFR Parts 60 and 61, requirements within
34 the State Implementation Plan and R307, any permit requirements
35 established pursuant to 40 CFR 52.21 or R307-401.

36 "EPA" means Environmental Protection Agency.

37 "EPA Method 9" means 40 CFR Part 60, Appendix A, Method 9,
38 "Visual Determination of Opacity of Emissions from Stationary
39 Sources," and Alternate 1, "Determination of the opacity of
40 emissions from stationary sources remotely by LIDAR."

41 "Executive Director" means the Executive Director of the Utah
42 Department of Environmental Quality. See Subsection 19-1-103(2).

43 "Existing Installation" means an installation, construction
44 of which began prior to the effective date of any regulation
45 having application to it.

1 "Filterable PM2.5" means particles with an aerodynamic
2 diameter equal to or less than 2.5 micrometers that are directly
3 emitted by a source as a solid or liquid at stack or release
4 conditions and can be captured on the filter of a stack test
5 train.

6 "Fireplace" means all devices both masonry or factory built
7 units (free standing fireplaces) with a hearth, fire chamber or
8 similarly prepared device connected to a chimney which provides
9 the operator with little control of combustion air, leaving its
10 fire chamber fully or at least partially open to the room.
11 Fireplaces include those devices with circulating systems, heat
12 exchangers, or draft reducing doors with a net thermal efficiency
13 of no greater than twenty percent and are used for aesthetic
14 purposes.

15 "Fugitive Dust" means particulate, composed of soil and/or
16 industrial particulates such as ash, coal, minerals, etc., which
17 becomes airborne because of wind or mechanical disturbance of
18 surfaces. Natural sources of dust and fugitive emissions are not
19 fugitive dust within the meaning of this definition.

20 "Fugitive Emissions" means emissions from an installation or
21 facility which are neither passed through an air cleaning device
22 nor vented through a stack or could not reasonably pass through a
23 stack, chimney, vent, or other functionally equivalent opening.

24 "Garbage" means all putrescible animal and vegetable matter
25 resulting from the handling, preparation, cooking and consumption
26 of food, including wastes attendant thereto.

27 "Gasoline" means any petroleum distillate, used as a fuel for
28 internal combustion engines, having a Reid vapor pressure of 4
29 pounds or greater.

30 "Hazardous Air Pollutant (HAP)" means any pollutant listed by
31 the EPA as a hazardous air pollutant in conformance with Section
32 112(b) of the Clean Air Act. A list of these pollutants is
33 available at the Division of Air Quality.

34 "Household Waste" means any solid or liquid material normally
35 generated by the family in a residence in the course of ordinary
36 day-to-day living, including but not limited to garbage, paper
37 products, rags, leaves and garden trash.

38 "Incinerator" means a combustion apparatus designed for high
39 temperature operation in which solid, semisolid, liquid, or
40 gaseous combustible wastes are ignited and burned efficiently and
41 from which the solid and gaseous residues contain little or no
42 combustible material.

43 "Installation" means a discrete process with identifiable
44 emissions which may be part of a larger industrial plant.
45 Pollution equipment shall not be considered a separate

1 installation or installations.

2 "LPG" means liquified petroleum gas such as propane or
3 butane.

4 "Maintenance Area" means an area that is subject to the
5 provisions of a maintenance plan that is included in the Utah
6 state implementation plan, and that has been redesignated by EPA
7 from nonattainment to attainment of any National Ambient Air
8 Quality Standard.

9 (a) The following areas are considered maintenance areas for
10 ozone:

11 (i) Salt Lake County, effective August 18, 1997; and

12 (ii) Davis County, effective August 18, 1997.

13 (b) The following areas are considered maintenance areas for
14 carbon monoxide:

15 (i) Salt Lake City, effective March 22, 1999;

16 (ii) Ogden City, effective May 8, 2001; and

17 (iii) Provo City, effective January 3, 2006.

18 (c) The following areas are considered maintenance areas for
19 PM10:

20 (i) Salt Lake County, effective on the date that EPA
21 approves the maintenance plan that was adopted by the Board on
22 December 2, 2015;

23 (ii) Utah County, effective on the date that EPA approves
24 the maintenance plan that was adopted by the Board on December 2,
25 2015; and

26 (iii) Ogden City, effective on the date that EPA approves
27 the maintenance plan that was adopted by the Board on December 2,
28 2015.

29 (d) The following area is considered a maintenance area for
30 sulfur dioxide: all of Salt Lake County and the eastern portion
31 of Tooele County above 5600 feet, effective on the date that EPA
32 approves the maintenance plan that was adopted by the Board on
33 January 5, 2005.

34 (e) The following areas are considered maintenance areas for
35 PM_{2.5}:

36 (i) the Salt Lake City, Utah 24-hr PM_{2.5} nonattainment area,
37 as defined in the July 1, 2019 version of 40 CFR 81.345,
38 effective on the date that EPA redesignates the area to
39 attainment for PM_{2.5};

40 (ii) the Provo, Utah 24-hr PM_{2.5} nonattainment area, as
41 defined in the July 1, 2019 version of 40 CFR 81.345, effective
42 on the date that EPA redesignates the area to attainment for
43 PM_{2.5}; and

44 (iii) the Utah portion of the Logan, Utah-Idaho 24-hr PM_{2.5}
45 nonattainment area, as defined in the July 1, 2019 version of

1 40 CFR 81.345, effective on the date that EPA redesignates the
2 area to attainment for PM_{2.5}.

3 "Major Modification" means any physical change in or change
4 in the method of operation of a major source that would result in
5 a significant net emissions increase of any pollutant. A net
6 emissions increase that is significant for volatile organic
7 compounds shall be considered significant for ozone. Within Salt
8 Lake and Davis Counties or any nonattainment area for ozone, a net
9 emissions increase that is significant for nitrogen oxides shall
10 be considered significant for ozone. Within areas of
11 nonattainment for PM₁₀, a significant net emission increase for
12 any PM₁₀ precursor is also a significant net emission increase for
13 PM₁₀. A physical change or change in the method of operation
14 shall not include:

- 15 (1) routine maintenance, repair and replacement;
- 16 (2) use of an alternative fuel or raw material by reason of
17 an order under section 2(a) and (b) of the Energy Supply and
18 Environmental Coordination Act of 1974, or by reason of a natural
19 gas curtailment plan pursuant to the Federal Power Act;
- 20 (3) use of an alternative fuel by reason of an order or rule
21 under section 125 of the federal Clean Air Act;
- 22 (4) use of an alternative fuel at a steam generating unit to
23 the extent that the fuel is generated from municipal solid waste;
- 24 (5) use of an alternative fuel or raw material by a source:
 - 25 (a) which the source was capable of accommodating before
26 January 6, 1975, unless such change would be prohibited under any
27 enforceable permit condition; or
 - 28 (b) which the source is otherwise approved to use;
- 29 (6) an increase in the hours of operation or in the
30 production rate unless such change would be prohibited under any
31 enforceable permit condition;
- 32 (7) any change in ownership at a source;
- 33 (8) the addition, replacement or use of a pollution control
34 project at an existing electric utility steam generating unit,
35 unless the director determines that such addition, replacement, or
36 use renders the unit less environmentally beneficial, or except:
 - 37 (a) when the director has reason to believe that the
38 pollution control project would result in a significant net
39 increase in representative actual annual emissions of any criteria
40 pollutant over levels used for that source in the most recent air
41 quality impact analysis in the area conducted for the purpose of
42 Title I of the Clean Air Act, if any, and
 - 43 (b) the director determines that the increase will cause or
44 contribute to a violation of any national ambient air quality
45 standard or PSD increment, or visibility limitation.

1 (9) the installation, operation, cessation, or removal of a
2 temporary clean coal technology demonstration project, provided
3 that the project complies with:

4 (a) the Utah State Implementation Plan; and

5 (b) other requirements necessary to attain and maintain the
6 national ambient air quality standards during the project and
7 after it is terminated.

8 "Major Source" means, to the extent provided by the federal
9 Clean Air Act as applicable to Title R307:

10 (1) any stationary source of air pollutants which emits, or
11 has the potential to emit, one hundred tons per year or more of
12 any pollutant subject to regulation under the Clean Air Act; or

13 (a) any source located in a nonattainment area for carbon
14 monoxide which emits, or has the potential to emit, carbon
15 monoxide in the amounts outlined in Section 187 of the federal
16 Clean Air Act with respect to the severity of the nonattainment
17 area as outlined in Section 187 of the federal Clean Air Act; or

18 (b) any source located in Salt Lake or Davis Counties or in
19 a nonattainment area for ozone which emits, or has the potential
20 to emit, VOC or nitrogen oxides in the amounts outlined in Section
21 182 of the federal Clean Air Act with respect to the severity of
22 the nonattainment area as outlined in Section 182 of the federal
23 Clean Air Act; or

24 (c) any source located in a nonattainment area for PM10
25 which emits, or has the potential to emit, PM10 or any PM10
26 precursor in the amounts outlined in Section 189 of the federal
27 Clean Air Act with respect to the severity of the nonattainment
28 area as outlined in Section 189 of the federal Clean Air Act.

29 (2) any physical change that would occur at a source not
30 qualifying under subpart 1 as a major source, if the change would
31 constitute a major source by itself;

32 (3) the fugitive emissions and fugitive dust of a stationary
33 source shall not be included in determining for any of the
34 purposes of these R307 rules whether it is a major stationary
35 source, unless the source belongs to one of the following
36 categories of stationary sources:

37 (a) Coal cleaning plants (with thermal dryers);

38 (b) Kraft pulp mills;

39 (c) Portland cement plants;

40 (d) Primary zinc smelters;

41 (e) Iron and steel mills;

42 (f) Primary aluminum or reduction plants;

43 (g) Primary copper smelters;

44 (h) Municipal incinerators capable of charging more than 250
45 tons of refuse per day;

- 1 (i) Hydrofluoric, sulfuric, or nitric acid plants;
 - 2 (j) Petroleum refineries;
 - 3 (k) Lime plants;
 - 4 (l) Phosphate rock processing plants;
 - 5 (m) Coke oven batteries;
 - 6 (n) Sulfur recovery plants;
 - 7 (o) Carbon black plants (furnace process);
 - 8 (p) Primary lead smelters;
 - 9 (q) Fuel conversion plants;
 - 10 (r) Sintering plants;
 - 11 (s) Secondary metal production plants;
 - 12 (t) Chemical process plants;
 - 13 (u) Fossil-fuel boilers (or combination thereof) totaling
 - 14 more than 250 million British Thermal Units per hour heat input;
 - 15 (v) Petroleum storage and transfer units with a total
 - 16 storage capacity exceeding 300,000 barrels;
 - 17 (w) Taconite ore processing plants;
 - 18 (x) Glass fiber processing plants;
 - 19 (y) Charcoal production plants;
 - 20 (z) Fossil fuel-fired steam electric plants of more than 250
 - 21 million British Thermal Units per hour heat input; or
 - 22 (aa) Any other stationary source category which, as of
 - 23 August 7, 1980, is being regulated under section 111 or 112 of the
 - 24 federal Clean Air Act.
- 25 "Modification" means any planned change in a source which
- 26 results in a potential increase of emission.
- 27 "National Ambient Air Quality Standards (NAAQS)" means the
- 28 allowable concentrations of air pollutants in the ambient air
- 29 specified by the Federal Government (Title 40, Code of Federal
- 30 Regulations, Part 50).
- 31 "Net Emissions Increase" means the amount by which the sum of
- 32 the following exceeds zero:
- 33 (1) any increase in actual emissions from a particular
 - 34 physical change or change in method of operation at a source; and
 - 35 (2) any other increases and decreases in actual emissions at
 - 36 the source that are contemporaneous with the particular change and
 - 37 are otherwise creditable. For purposes of determining a "net
 - 38 emissions increase":
- 39 (a) An increase or decrease in actual emissions is
 - 40 contemporaneous with the increase from the particular change only
 - 41 if it occurs between the date five years before construction on
 - 42 the particular change commences; and the date that the increase
 - 43 from the particular change occurs.
 - 44 (b) An increase or decrease in actual emissions is
 - 45 creditable only if it has not been relied on in issuing a prior

1 approval for the source which approval is in effect when the
2 increase in actual emissions for the particular change occurs.

3 (c) An increase or decrease in actual emission of sulfur
4 dioxide, nitrogen oxides or particulate matter which occurs before
5 an applicable minor source baseline date is creditable only if it
6 is required to be considered in calculating the amount of maximum
7 allowable increases remaining available. With respect to
8 particulate matter, only PM10 emissions will be used to evaluate
9 this increase or decrease.

10 (d) An increase in actual emissions is creditable only to
11 the extent that the new level of actual emissions exceeds the old
12 level.

13 (e) A decrease in actual emissions is creditable only to the
14 extent that:

15 (i) The old level of actual emissions or the old level of
16 allowable emissions, whichever is lower, exceeds the new level of
17 actual emissions;

18 (ii) It is enforceable at and after the time that actual
19 construction on the particular change begins; and

20 (iii) It has approximately the same qualitative significance
21 for public health and welfare as that attributed to the increase
22 from the particular change.

23 (iv) It has not been relied on in issuing any permit under
24 R307-401 nor has it been relied on in demonstrating attainment or
25 reasonable further progress.

26 (f) An increase that results from a physical change at a
27 source occurs when the emissions unit on which construction
28 occurred becomes operational and begins to emit a particular
29 pollutant. Any replacement unit that requires shakedown becomes
30 operational only after a reasonable shakedown period, not to
31 exceed 180 days.

32 "New Installation" means an installation, construction of
33 which began after the effective date of any regulation having
34 application to it.

35 "Nonattainment Area" means an area designated by the
36 Environmental Protection Agency as nonattainment under Section
37 107, Clean Air Act for any National Ambient Air Quality Standard.
38 The designations for Utah are listed in 40 CFR 81.345.

39 "Offset" means an amount of emission reduction, by a source,
40 greater than the emission limitation imposed on such source by
41 these regulations and/or the State Implementation Plan.

42 "Opacity" means the capacity to obstruct the transmission of
43 light, expressed as percent.

44 "Open Burning" means any burning of combustible materials
45 resulting in emission of products of combustion into ambient air

1 without passage through a chimney or stack.

2 "Owner or Operator" means any person who owns, leases,
3 controls, operates or supervises a facility, an emission source,
4 or air pollution control equipment.

5 "PSD" Area means an area designated as attainment or
6 unclassifiable under section 107(d)(1)(D) or (E) of the federal
7 Clean Air Act.

8 "PM2.5" means particulate matter with an aerodynamic diameter
9 less than or equal to a nominal 2.5 micrometers as measured by an
10 EPA reference or equivalent method.

11 "PM2.5 Precursor" means any chemical compound or substance
12 which, after it has been emitted into the atmosphere, undergoes
13 chemical or physical changes that convert it into particulate
14 matter, specifically PM2.5.

15 (1) Specifically, Sulfur dioxide, Nitrogen oxides, Volatile
16 organic compounds and Ammonia are precursors to PM2.5 in any PM2.5
17 nonattainment area, except where the Administrator of the EPA has
18 approved a demonstration satisfying 40 CFR 51.1006(a)(3) which
19 has, for a particular PM2.5 nonattainment area, determined
20 otherwise.

21 (2) The following subparagraphs denote specific
22 nonattainment areas (as defined in the July 1, 2017 version of 40
23 CFR 81.345), within which certain pollutants identified in
24 paragraph (1) are exempted from the definition of PM2.5 precursor
25 for the purposes of 40 CFR 51.165

26 (a) In the Logan UT-ID PM2.5 nonattainment area - Ammonia is
27 exempted.

28 "PM10" means particulate matter with an aerodynamic diameter
29 less than or equal to a nominal 10 micrometers as measured by an
30 EPA reference or equivalent method.

31 "PM10 Precursor" means any chemical compound or substance
32 which, after it has been emitted into the atmosphere, undergoes
33 chemical or physical changes that convert it into particulate
34 matter, specifically PM10.

35 "Part 70 Source" means any source subject to the permitting
36 requirements of R307-415.

37 "Person" means an individual, trust, firm, estate, company,
38 corporation, partnership, association, state, state or federal
39 agency or entity, municipality, commission, or political
40 subdivision of a state. (Subsection 19-2-103(4)).

41 "Pollution Control Project" means any activity or project at
42 an existing electric utility steam generating unit for purposes of
43 reducing emissions from such unit. Such activities or projects
44 are limited to:

45 (1) the installation of conventional or innovative pollution

1 control technology, including but not limited to advanced flue gas
2 desulfurization, sorbent injection for sulfur dioxide and nitrogen
3 oxides controls and electrostatic precipitators;

4 (2) an activity or project to accommodate switching to a
5 fuel which is less polluting than the fuel used prior to the
6 activity or project, including, but not limited to natural gas or
7 coal reburning, or the cofiring of natural gas and other fuels for
8 the purpose of controlling emissions;

9 (3) a permanent clean coal technology demonstration project
10 conducted under Title II, sec. 101(d) of the Further Continuing
11 Appropriations Act of 1985 (sec. 5903(d) of title 42 of the United
12 States Code), or subsequent appropriations, up to a total amount
13 of \$2,500,000,000 for commercial demonstration of clean coal
14 technology, or similar projects funded through appropriations for
15 the Environmental Protection Agency; or

16 (4) a permanent clean coal technology demonstration project
17 that constitutes a repowering project.

18 "Potential to Emit" means the maximum capacity of a source to
19 emit a pollutant under its physical and operational design. Any
20 physical or operational limitation on the capacity of the source
21 to emit a pollutant including air pollution control equipment and
22 restrictions on hours of operation or on the type or amount of
23 material combusted, stored, or processed shall be treated as part
24 of its design if the limitation or the effect it would have on
25 emissions is enforceable. Secondary emissions do not count in
26 determining the potential to emit of a stationary source.

27 "Primary PM2.5" means the sum of filterable PM2.5 and
28 condensable PM2.5.

29 "Process Level" means the operation of a source, specific to
30 the kind or type of fuel, input material, or mode of operation.

31 "Process Rate" means the quantity per unit of time of any raw
32 material or process intermediate consumed, or product generated,
33 through the use of any equipment, source operation, or control
34 apparatus. For a stationary internal combustion unit or any other
35 fuel burning equipment, this term may be expressed as the quantity
36 of fuel burned per unit of time.

37 "Reactivation of a Very Clean Coal-Fired Electric Utility
38 Steam Generating Unit" means any physical change or change in the
39 method of operation associated with the commencement of commercial
40 operations by a coal-fired utility unit after a period of
41 discontinued operation where the unit:

42 (1) has not been in operation for the two-year period prior
43 to the enactment of the Clean Air Act Amendments of 1990, and the
44 emissions from such unit continue to be carried in the emission
45 inventory at the time of enactment;

1 (2) was equipped prior to shutdown with a continuous system
2 of emissions control that achieves a removal efficiency for sulfur
3 dioxide of no less than 85 percent and a removal efficiency for
4 particulates of no less than 98 percent;

5 (3) is equipped with low-NOx burners prior to the time of
6 commencement of operations following reactivation; and

7 (4) is otherwise in compliance with the requirements of the
8 Clean Air Act.

9 "Reasonable Further Progress" means annual incremental
10 reductions in emission of an air pollutant which are sufficient to
11 provide for attainment of the NAAQS by the date identified in the
12 State Implementation Plan.

13 "Refuse" means solid wastes, such as garbage and trash.

14 "Regulated air pollutant" means any of the following:

15 (a) nitrogen oxides or any volatile organic compound;

16 (b) any pollutant for which a national ambient air quality
17 standard has been promulgated;

18 (c) any pollutant that is subject to any standard
19 promulgated under Section 111 of the Act, Standards of Performance
20 for New Stationary Sources;

21 (d) any Class I or II substance subject to a standard
22 promulgated under or established by Title VI of the Act,
23 Stratospheric Ozone Protection; or

24 (e) any pollutant subject to a standard promulgated under
25 Section 112, Hazardous Air Pollutants, or other requirements
26 established under Section 112 of the Act, including Sections
27 112(g), (j), and (r) of the Act, including any of the following:

28 (i) Any pollutant subject to requirements under Section
29 112(j) of the Act, Equivalent Emission Limitation by Permit. If
30 the Administrator fails to promulgate a standard by the date
31 established pursuant to Section 112(e) of the Act, any pollutant
32 for which a subject source would be major shall be considered to
33 be regulated on the date 18 months after the applicable date
34 established pursuant to Section 112(e) of the Act;

35 (ii) Any pollutant for which the requirements of Section
36 112(g)(2) of the Act (Construction, Reconstruction and
37 Modification) have been met, but only with respect to the
38 individual source subject to Section 112(g)(2) requirement.

39 "Repowering" means replacement of an existing coal-fired
40 boiler with one of the following clean coal technologies:
41 atmospheric or pressurized fluidized bed combustion, integrated
42 gasification combined cycle, magnetohydrodynamics, direct and
43 indirect coal-fired turbines, integrated gasification fuel cells,
44 or as determined by the Administrator, in consultation with the
45 Secretary of Energy, a derivative of one or more of these

1 technologies, and any other technology capable of controlling
2 multiple combustion emissions simultaneously with improved boiler
3 or generation efficiency and with significantly greater waste
4 reduction relative to the performance of technology in widespread
5 commercial use as of November 15, 1990.

6 (1) Repowering shall also include any oil and/or gas-fired
7 unit which has been awarded clean coal technology demonstration
8 funding as of January 1, 1991, by the Department of Energy.

9 (2) The director shall give expedited consideration to
10 permit applications for any source that satisfies the requirements
11 of this definition and is granted an extension under section 409
12 of the Clean Air Act.

13 "Representative Actual Annual Emissions" means the average
14 rate, in tons per year, at which the source is projected to emit a
15 pollutant for the two-year period after a physical change or
16 change in the method of operation of unit, (or a different
17 consecutive two-year period within 10 years after that change,
18 where the director determines that such period is more
19 representative of source operations), considering the effect any
20 such change will have on increasing or decreasing the hourly
21 emissions rate and on projected capacity utilization. In
22 projecting future emissions the director shall:

23 (1) Consider all relevant information, including but not
24 limited to, historical operational data, the company's own
25 representations, filings with the State of Federal regulatory
26 authorities, and compliance plans under title IV of the Clean Air
27 Act; and

28 (2) Exclude, in calculating any increase in emissions that
29 results from the particular physical change or change in the
30 method of operation at an electric utility steam generating unit,
31 that portion of the unit's emissions following the change that
32 could have been accommodated during the representative baseline
33 period and is attributable to an increase in projected capacity
34 utilization at the unit that is unrelated to the particular
35 change, including any increased utilization due to the rate of
36 electricity demand growth for the utility system as a whole.

37 "Residence" means a dwelling in which people live, including
38 all ancillary buildings.

39 "Residential Solid Fuel Burning" device means any residential
40 burning device except a fireplace connected to a chimney that
41 burns solid fuel and is capable of, and intended for use as a
42 space heater, domestic water heater, or indoor cooking appliance,
43 and has an air-to-fuel ratio less than 35-to-1 as determined by
44 the test procedures prescribed in 40 CFR 60.534. It must also
45 have a useable firebox volume of less than 6.10 cubic meters or 20

1 cubic feet, a minimum burn rate less than 5 kilograms per hour or
2 11 pounds per hour as determined by test procedures prescribed in
3 40 CFR 60.534, and weigh less than 800 kilograms or 362.9 pounds.
4 Appliances that are described as prefabricated fireplaces and are
5 designed to accommodate doors or other accessories that would
6 create the air starved operating conditions of a residential solid
7 fuel burning device shall be considered as such. Fireplaces are
8 not included in this definition for solid fuel burning devices.

9 "Road" means any public or private road.

10 "Salvage Operation" means any business, trade or industry
11 engaged in whole or in part in salvaging or reclaiming any product
12 or material, including but not limited to metals, chemicals,
13 shipping containers or drums.

14 "Secondary Emissions" means emissions which would occur as a
15 result of the construction or operation of a major source or major
16 modification, but do not come from the major source or major
17 modification itself.

18 Secondary emissions must be specific, well defined,
19 quantifiable, and impact the same general area as the source or
20 modification which causes the secondary emissions. Secondary
21 emissions include emissions from any off-site support facility
22 which would not be constructed or increase its emissions except as
23 a result of the construction or operation of the major source or
24 major modification. Secondary emissions do not include any
25 emissions which come directly from a mobile source such as
26 emissions from the tailpipe of a motor vehicle, from a train, or
27 from a vessel.

28 Fugitive emissions and fugitive dust from the source or
29 modification are not considered secondary emissions.

30 "Secondary PM2.5" means particles that form or grow in mass
31 through chemical reactions in the ambient air well after dilution
32 and condensation have occurred. Secondary PM2.5 is usually formed
33 at some distance downwind from the source.

34 "Significant" means:

35 (1) In reference to a net emissions increase or the
36 potential of a source to emit any of the following pollutants, a
37 rate of emissions that would equal or exceed any of the following
38 rates:

39 Carbon monoxide: 100 ton per year (tpy);

40 Nitrogen oxides: 40 tpy;

41 Sulfur dioxide: 40 tpy;

42 PM10: 15 tpy;

43 PM2.5: 10 tpy;

44 Particulate matter: 25 tpy;

45 Ozone: 40 tpy of volatile organic compounds;

1 Lead: 0.6 tpy.

2 "Solid Fuel" means wood, coal, and other similar organic
3 material or combination of these materials.

4 "Solvent" means organic materials which are liquid at
5 standard conditions (Standard Temperature and Pressure) and which
6 are used as dissolvers, viscosity reducers, or cleaning agents.

7 "Source" means any structure, building, facility, or
8 installation which emits or may emit any air pollutant subject to
9 regulation under the Clean Air Act and which is located on one or
10 more continuous or adjacent properties and which is under the
11 control of the same person or persons under common control. A
12 building, structure, facility, or installation means all of the
13 pollutant-emitting activities which belong to the same industrial
14 grouping. Pollutant-emitting activities shall be considered as
15 part of the same industrial grouping if they belong to the same
16 "Major Group" (i.e. which have the same two-digit code) as
17 described in the Standard Industrial Classification Manual, 1972,
18 as amended by the 1977 Supplement (US Government Printing Office
19 stock numbers 4101-0065 and 003-005-00176-0, respectively).

20 "Stack" means any point in a source designed to emit solids,
21 liquids, or gases into the air, including a pipe or duct but not
22 including flares.

23 "Standards of Performance for New Stationary Sources" means
24 the Federally established requirements for performance and record
25 keeping (Title 40 Code of Federal Regulations, Part 60).

26 "State" means Utah State.

27 "Temporary" means not more than 180 calendar days.

28 "Temporary Clean Coal Technology Demonstration Project" means
29 a clean coal technology demonstration project that is operated for
30 a period of 5 years or less, and which complies with the Utah
31 State Implementation Plan and other requirements necessary to
32 attain and maintain the national ambient air quality standards
33 during the project and after it is terminated.

34 "Threshold Limit Value - Ceiling (TLV-C)" means the airborne
35 concentration of a substance which may not be exceeded, as adopted
36 by the American Conference of Governmental Industrial Hygienists
37 in its "Threshold Limit Values for Chemical Substances and
38 Physical Agents and Biological Exposure Indices, (2009)."

39 "Threshold Limit Value - Time Weighted Average (TLV-TWA)"
40 means the time-weighted airborne concentration of a substance
41 adopted by the American Conference of Governmental Industrial
42 Hygienists in its "Threshold Limit Values for Chemical Substances
43 and Physical Agents and Biological Exposure Indices, (2009)."

44 "Total Suspended Particulate (TSP)" means minute separate
45 particles of matter, collected by high volume sampler.

1 "Toxic Screening Level" means an ambient concentration of an
2 air pollutant equal to a threshold limit value - ceiling (TLV- C)
3 or threshold limit value -time weighted average (TLV-TWA) divided
4 by a safety factor.

5 "Trash" means solids not considered to be highly flammable or
6 explosive including, but not limited to clothing, rags, leather,
7 plastic, rubber, floor coverings, excelsior, tree leaves, yard
8 trimmings and other similar materials.

9 "VOC content" means the weight of VOC per volume of material
10 and is calculated by the following equation in gram/liter (or
11 alternately in pound/gallon, or pound/pound):

$$12 \text{ Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

13 Where:

14 W_s = weight of volatile organic compounds

15 W_w = weight of water

16 W_{es} = weight of exempt compounds

17 V_m = volume of material

18 "Volatile Organic Compound (VOC)" means VOC as defined in 40
19 CFR 51.100(s), effective as of the date referenced in R307-101-3,
20 is hereby adopted and incorporated by reference.

21 "Waste" means all solid, liquid or gaseous material,
22 including, but not limited to, garbage, trash, household refuse,
23 construction or demolition debris, or other refuse including that
24 resulting from the prosecution of any business, trade or industry.

25 "Zero Drift" means the change in the instrument meter readout
26 over a stated period of time of normal continuous operation when
27 the VOC concentration at the time of measurement is zero.

28
29 **KEY: air pollution, definitions**

30 **Date of Enactment or Last Substantive Amendment: February 7, 2019**

31 **Notice of Continuation: November 13, 2018**

32 **Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(a)**

ITEM 5



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-071-20a

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Catherine Williams, Environmental Scientist; and
Sheila Vance, Environmental Scientist

DATE: August 27, 2020 - Amended

SUBJECT: PROPOSE FOR FINAL ADOPTION: R307-150. Emission Inventories.

At the June 3, 2020, Air Quality Board meeting, the Board proposed amendments to R307-150, Emission Inventories, for public comment. Amendments to the rule implement Clean Air Act (CAA) inventory reporting requirements for specific sources located in areas that are designated as nonattainment for the 2015 ozone National Ambient Air Quality Standards. Other proposed amendments included changes to the rule that will increase the transparency and accuracy of the emissions inventory data, as well as improve efficiency in the reporting process for both point source facilities and DAQ staff.

On August 3, 2018, the Environmental Protection Agency (EPA) designated areas in Utah as ozone nonattainment areas under the CAA. As part of the requirements for an ozone nonattainment area, all sources with a potential to emit emissions of either oxides of nitrogen (NO_x) or volatile organic compounds (VOCs) greater than 25 tons per year are required to provide the DAQ with an annual statement describing the emission sources and the actual amount of NO_x and VOC emissions from those sources. With these proposed amendments, the first such statement will be due by April 15, 2021.

Additional proposed amendments to R307-150 change the inventory data being submitted by some sources. Currently, sources subject to R307-150-6 submit facility totals for each pollutant (summary-only facilities), while all other sources submit specific information regarding each piece of permitted equipment (detailed facilities). Inventory staff would like to change this rule so that all sources are required to submit a detailed emissions inventory. Staff believe this change will improve the reporting experience for the user, the quality control process for staff, and the point source data quality for State Implementation Plans.

While “summary-only” appears to be an easier reporting process for facilities, it often is more challenging than completing a detailed report. Inventory staff will work with the affected facilities for this change to be successful. As the 2020 inventory deadline of April 15, 2021, approaches, staff will again offer several in-person training sessions showing users how to complete an inventory, similar to the implementation of SLEIS in 2018. Inventory staff believe the detailed report process is cleaner, more streamlined and transparent, and will improve the accuracy of the inventory.

The public comment period for these proposed rules ran from July 1, 2020, through August 3, 2020. A public hearing was held in which one comment was provided. The summary of public comments and DAQ responses are included below.

Written comments were received from the Western Energy Alliance (WEA) and the Utah Petroleum Association (UPA).

WEA/UPA Comments

Questions and comments excerpted from original document.

WEA/UPA Comment #1: The Environmental Protection Agency (EPA) implements this rule at a national level with applicability based on actual emissions, whereas the proposal intends to use potential to emit (PTE) for applicability.

UDAQ response: A review of several States’ emission statement rule and Federal Implementation Plans indicates that there is no consistent applicability standard for sources. Applicability varied by state with some using PTE to determine applicability while others employed actual emissions. The language of the Clean Air Act (CAA) Section 182(a)(3)(B) requirement does not discuss PTE or actuals in terms of applicability, rather, just that reporting of emissions will be actuals.

WEA/UPA Comment #2: EPA is unlikely to change their rule applicability from actual to potential emissions especially since their applicability stems from the Clean Air Act. Thus, companies operating in neighboring (same state) jurisdictions on Tribal lands within the same nonattainment area would be required to report based on applicability considering actual emissions for EPA and considering PTE for DAQ.

UDAQ response: It is the understanding of UDAQ that EPA is not planning on implementing an emission statement rule for Tribal lands within the Uinta Basin ozone nonattainment area. Therefore, sources on Tribal lands will not be required to provide an annual emission statement and there are no inconsistent rules related to applicability requirements.

WEA/UPA Comment #3: The proposed rule attempts to implement a federal regulation in a more restrictive manner than the federal regulation itself.

UDAQ response: CAA Section 182(a)(3)(B) clause (i) states “that the owner or operator of each stationary source of oxides of nitrogen or volatile organic compounds proved the State with a statement, in such form at the Administrator may prescribe (or accept an equivalent alternative developed by the State), for classes or categories of sources, showing the actual emissions of oxides of nitrogen and volatile organic compounds from that source.” And the second clause states “The State may waive the application of clause (i) to any class or category of stationary source when emit less than 25 tons per year of volatile organic compounds or oxides of nitrogen if the State, in its submissions under subparagraphs (1) or (3)(A), provides an inventory of emissions from such a class or category of sources, based on the use of the emission factors established by the Administrator or other methods acceptable to the Administrator.”

The language of the CAA does not make any determination as to applicability being based upon actuals or PTE. Technically, the language in clause (i) actually states any stationary source of NO_x or VOC is required report, with no emission threshold established for reporting. The UDAQ is choosing to take advantage of the clause (ii) waiver which provides reporting relief for those sources that are less than 25 tons per year because UDAQ is meeting the marginal periodic emission inventory requirements of the CAA. The use of PTE for determining applicability of this rule is generally a simpler compliance tool as PTE is a consistent value based upon operations and equipment. If actual emissions were used, sources would need to calculate their actual emissions every year to determine if the annual emission statement rule would apply to them and resulting in a higher workload.

Response to Public Hearing:

Inventory staff received a comment regarding the amount of work it will take a summary-only facility that already has emissions calculation systems in place to recreate that information in a detailed SLEIS report. Staff responded acknowledging there will be some work on the part of the facility to make this change, but in following years, the template will be in place and will not be any more work to populate than the current process. Inventory staff have already created release points, control devices, and emissions units for all summary-only facilities in SLEIS, thereby reducing a large amount of work necessary to set up the detailed reports.

Recommendation: Staff recommends that the Board adopt R307-150, Emission Inventories.

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

2 **R307-150. Emission Inventories.**

3 **R307-150-1. Purpose and General Requirements.**

4 (1) The purpose of Rule R307-150 is:

5 (a) to establish by rule the time frame, pollutants, and
6 information that sources must include in inventory submittals; and

7 (b) to establish consistent reporting requirements for
8 stationary sources in Utah to determine whether sulfur dioxide
9 emissions remain below the sulfur dioxide milestones established in
10 the State Implementation Plan for Regional Haze, section XX.E.1.a,
11 incorporated by reference in Section R307-110-28.

12 (2) The requirements of Rule R307-150 replace any annual
13 inventory reporting requirements in approval orders or operating
14 permits issued prior to December 4, 2003.

15 (3) Emission inventories shall be submitted on or before April
16 15 of each year following the calendar year for which an inventory is
17 required. The inventory shall be submitted in a format specified by
18 the Division of Air Quality following consultation with each source.

19 (4) The executive secretary may require at any time a full or
20 partial year inventory upon reasonable notice to affected sources when
21 it is determined that the inventory is necessary to develop a state
22 implementation plan, to assess whether there is a threat to public
23 health or safety or the environment, or to determine whether the source
24 is in compliance with Title R307.

25 (5) Recordkeeping Requirements.

26 (a) Each owner or operator of a stationary source subject to this
27 rule shall maintain a copy of the emission inventory submitted to the
28 Division of Air Quality and records indicating how the information
29 submitted in the inventory was determined, including any calculations,
30 data, measurements, and estimates used. The records under Section
31 R307-150-4 shall be kept for ten years. Other records shall be kept
32 for a period of at least five years from the due date of each inventory.

33 (b) The owner or operator of the stationary source shall make
34 these records available for inspection by any representative of the
35 Division of Air Quality during normal business hours.

36
37 **R307-150-2. Definitions.**

38 The following additional definitions apply to Rule R307-150, and
39 all references to the "Threshold Limit Values for chemical Substances
40 and Physical Agents and Biological Exposure Indices" adopted by the
41 American Conference of Governmental Industrial Hygienists refers to
42 the 2003 version, which is hereby incorporated by reference.

43 "Acute pollutant" means any noncarcinogenic air pollutant for
44 which a threshold limit value - ceiling (TLV-C) has been adopted by
45 the American Conference of Governmental Industrial Hygienists in its

1 "Threshold Limit Values for Chemical Substances and Physical Agents
2 and Biological Exposure Indices," 2003 edition.

3 "Carcinogenic pollutant" means any air pollutant that is
4 classified as a known human carcinogen (A1) or suspected human
5 carcinogen (A2) by the American Conference of Governmental Industrial
6 Hygienists in its "Threshold Limit Values for Chemical Substances and
7 Physical Agents and Biological Exposure Indices," 2003 edition.

8 "Chronic Pollutant" means any noncarcinogenic air pollutant for
9 which a threshold limit value - time weighted average (TLV-TWA) having
10 no threshold limit value - ceiling (TLV-C) has been adopted by the
11 American Conference of Governmental Industrial Hygienists in its
12 "Threshold Limit Values for Chemical Substances and Physical Agents
13 and Biological Exposure Indices," 2003 edition.

14 "Dioxins" and "Furans" mean total tetra- through octachlorinated
15 dibenzo-p-dioxins and dibenzofurans.

16 "Emissions unit" means emissions unit as defined in Section
17 R307-415-3.

18 "Large Major Source" means a major source that emits or has the
19 potential to emit 2500 tons or more per year of oxides of sulfur, oxides
20 of nitrogen, or carbon monoxide, or that emits or has the potential
21 to emit 250 tons or more per year of PM₁₀, PM_{2.5}, volatile organic
22 compounds, or ammonia.

23 "Lead" means elemental lead and the portion of its compounds
24 measured as elemental lead.

25 "Major Source" means major source as defined in Section
26 R307-415-3.

27
28 **R307-150-3. Applicability.**

29 (1) Section R307-150-4 applies to stationary sources with
30 actual emissions of 100 tons or more per year of sulfur dioxide in
31 calendar year 2000 or any subsequent year unless exempted in Subsection
32 R307-150-3(1)(a). Sources subject to Subsection R307-150-4 may be
33 subject to other sections of Rule R307-150.

34 (a) A stationary source that meets the requirements of
35 Subsection R307-150-3(1) that has permanently ceased operation is
36 exempt from the requirements of Section R307-150-4 for the years during
37 which the source did not operate at any time during the year.

38 (b) Notwithstanding Subsection R307-150-3(1)(a), beginning
39 with 2016 emissions, the Division of Air Quality will include emissions
40 of 8,005 tons per year of sulfur dioxide for the Carbon Power Plant
41 in the annual regional sulfur dioxide milestone report required as part
42 of the Regional Haze State Implementation Plan.

43 (c) Except as provided in Subsection R307-150-3(1)(a), any
44 source that meets the criteria of Subsection R307-150-3(1) and that
45 emits less than 100 tons per year of sulfur dioxide in any subsequent

1 year shall remain subject to the requirements of Section R307-150-4
2 until 2018 or until the first control period under the Western Backstop
3 Sulfur Dioxide Trading Program as established in Subsection
4 R307-250-12(1)(a), whichever is earlier.

5 (2) Section R307-150-5 applies to large major sources.

6 (3) Section R307-150-6 applies to:

7 (a) each major source that is not a large major source;

8 (b) each source with the potential to emit 5 tons or more per
9 year of lead;

10 (c) each source not included in Subsections R307-150-3(2),
11 R307-150-3(3)(a), or R307-150-3(3)(b) that is located in Davis, Salt
12 Lake, Utah, or Weber Counties and that has the potential to emit 25
13 tons or more per year of any combination of oxides of nitrogen, oxides
14 of sulfur and PM₁₀, or the potential to emit 10 tons or more per year
15 of volatile organic compounds; and

16 (d) each Part 70 source not included in Subsections
17 R307-150-3(2), R307-150-3(3)(a), R307-150-3(3)(b), or
18 R307-150-3(3)(c).

19 (4) Section R307-150-8 applies to sources with Standard
20 Industrial Classification codes in the major group 13 that have
21 uncontrolled actual emissions greater than one ton per year for a
22 single pollutant of PM₁₀, PM_{2.5}, oxides of nitrogen, oxides of sulfur,
23 carbon monoxide or volatile organic compounds. These sources include,
24 but are not limited to, industries involved in oil and natural gas
25 exploration, production, and transmission operations; well production
26 facilities; natural gas compressor stations; and natural gas
27 processing plants and commercial oil and gas disposal wells, and ponds.

28 (a) Sources that require inventory submittals under Subsections
29 R307-150-3(1) through R307-150-3(3) are excluded from the
30 requirements of Section R307-150-8

31 (5) Section R307-150-9 applies to stationary sources located in
32 a designated ozone nonattainment area that have the potential to emit
33 oxides of nitrogen or volatile organic compounds greater than 25 tons
34 per year.

35
36 **R307-150-4. Sulfur Dioxide Milestone Inventory Requirements.**

37 (1) Annual Sulfur Dioxide Emission Report.

38 (a) Sources identified in Subsection R307-150-3(1) shall submit
39 an annual inventory of sulfur dioxide emissions beginning with
40 calendar year 2003 for emissions units including fugitive emissions.

41 (b) The inventory shall include the rate and period of
42 emissions, excess or breakdown emissions, startup and shut down
43 emissions, the specific emissions unit that is the source of the air
44 pollution, type and efficiency of the air pollution control equipment,
45 percent of sulfur content in fuel and how the percent is calculated,

1 and other information necessary to quantify operation and emissions
2 and to evaluate pollution control efficiency. The emissions of a
3 pollutant shall be calculated using the source's actual operating
4 hours, production rates, and types of materials processed, stored, or
5 combusted during the inventoried time period.

6 (2) Each source subject to Section R307-150-4 that is also
7 subject to 40 CFR Part 75 reporting requirements shall submit a summary
8 report of annual sulfur dioxide emissions that were reported to the
9 Environmental Protection Agency under 40 CFR Part 75 in lieu of the
10 reporting requirements in (1) above.

11 (3) Changes in Emission Measurement Techniques. Each source
12 subject to Section R307-150-4 that uses a different emission
13 monitoring or calculation method than was used to report their sulfur
14 dioxide emissions in 2006 under Rule R307-150 or 40 CFR Part 75 shall
15 adjust their reported emissions to be comparable to the emission
16 monitoring or calculation method that was used in 2006. The
17 calculations that are used to make this adjustment shall be included
18 with the annual emission report.

19
20 **R307-150-5. Sources Identified in R307-150-3(2), Large Major Source**
21 **Inventory Requirements.**

22 (1) Each large major source shall submit an emission inventory
23 annually beginning with calendar year 2002. The inventory shall
24 include PM₁₀, PM_{2.5}, oxides of sulfur, oxides of nitrogen, carbon
25 monoxide, volatile organic compounds, and ammonia for emissions units
26 including fugitive emissions.

27 (2) For every third year beginning with 2005, the inventory
28 shall also include all other chargeable pollutants and hazardous air
29 pollutants not exempted in Section R307-150-7.

30 (3) For each pollutant specified in (1) or (2) above, the
31 inventory shall include the rate and period of emissions, excess or
32 breakdown emissions, startup and shut down emissions, the specific
33 emissions unit that is the source of the air pollution, composition
34 of air pollutant, type and efficiency of the air pollution control
35 equipment, and other information necessary to quantify operation and
36 emissions and to evaluate pollution control efficiency. The
37 emissions of a pollutant shall be calculated using the source's actual
38 operating hours, production rates, and types of materials processed,
39 stored, or combusted during the inventoried time period.

40
41 **R307-150-6. Sources Identified in R307-150-3(3).**

42 (1) Each source identified in Subsection R307-150-3(3) shall
43 submit an inventory every third year beginning with calendar year 2002
44 for emissions units including fugitive emissions.

45 (a) The inventory shall include PM₁₀, PM_{2.5}, oxides of sulfur,

1 oxides of nitrogen, carbon monoxide, volatile organic compounds,
2 ammonia, other chargeable pollutants, and hazardous air pollutants not
3 exempted in Section R307-150-7.

4 (b) For each pollutant, the inventory shall include the rate and
5 period of emissions, excess or breakdown emissions, startup and shut
6 down emissions, the specific emissions unit which is the source of the
7 air pollution, composition of air pollutant, type and efficiency of
8 the air pollution control equipment, and other information necessary
9 to quantify operation and emissions and to evaluate pollution control
10 efficiency. The emissions of a pollutant shall be calculated using
11 the source's actual operating hours, production rates, and types of
12 materials processed, stored, or combusted during the inventoried time
13 period.

14 (2) Sources identified in Subsection R307-150-3(3) shall submit
15 an inventory for each year after 2002 in which the total amount of PM10,
16 oxides of sulfur, oxides of nitrogen, carbon monoxide, or volatile
17 organic compounds increases or decreases by 40 tons or more per year
18 from the most recently submitted inventory. For each pollutant, the
19 inventory shall meet the requirements of Subsections R307-150-6(1)(a)
20 and R307-150-6(1)(b).

21
22 **R307-150-7. Exempted Hazardous Air Pollutants.**

23 (1) The following air pollutants are exempt from this rule if
24 they are emitted in an amount less than that listed in Table 1.

25
26 TABLE 1

POLLUTANT	Pounds/year
Arsenic	0.21
Benzene	33.90
Beryllium	0.04
Ethylene oxide	38.23
Formaldehyde	5.83

27
28
29
30
31
32
33
34
35 (2) Hazardous air pollutants, except for dioxins or furans, are
36 exempt from being reported if they are emitted in an amount less than
37 the smaller of the following:

38 (a) 500 pounds per year; or

39 (b) for acute pollutants, the applicable TLV-C expressed in
40 milligrams per cubic meter and multiplied by 15.81 to obtain the
41 pounds-per-year threshold; or

42 (c) for chronic pollutants, the applicable TLV-TWA expressed in
43 milligrams per cubic meter and multiplied by 21.22 to obtain the
44 pounds-per-year threshold; or

45 (d) for carcinogenic pollutants, the applicable TLV-C or

1 TLV-TWA expressed in milligrams per cubic meter and multiplied by 7.07
2 to obtain the pounds-per-year threshold.

3
4 **R307-150-8. Crude Oil and Natural Gas Source Category.**

5 (1) Sources identified in Subsection R307-150-3(4) shall submit
6 an inventory every third year beginning with the 2017 calendar year
7 for emission units.

8 (a) The inventory shall include the total emissions for PM₁₀,
9 PM_{2.5}, oxides of sulfur, oxides of nitrogen, carbon monoxide and
10 volatile organic compounds for each emission unit at the source. The
11 emissions of a pollutant shall be calculated using the emission unit's
12 actual operating hours, product rates, and types of materials
13 processed, stored, or combusted during the inventoried time period.

14 (b) The inventory shall include the type and efficiency of air
15 pollution control equipment.

16 (c) The inventory shall be submitted in an electronic format
17 determined by the Director specific to this source category.

18
19 **R307-150-9. Annual Ozone Emission Statement.**

20 (1) Beginning in the year 2021, sources identified in Subsection
21 R307-150-3(5) shall submit an ozone emission statement to the Division
22 of Air Quality annually by April 15 of each year for the previous year's
23 emissions.

24 (2) A source required to submit an emission statement shall
25 provide the following minimum information:

26 (a) a certification that the information contained in the
27 statement is accurate to the best knowledge of the individual
28 certifying the statement;

29 (b) the physical location where actual emissions occurred;

30 (c) the name and address of person or entity operating or owning
31 the source;

32 (d) the nature of the source; and

33 (e) the total actual emissions of oxides of nitrogen and volatile
34 organic compounds in tons per year for each emission unit.

35 (3) Emission statements shall be submitted in an electronic
36 format determined by the Director.

37
38 **KEY: air pollution, reports, inventories**

39 **Date of Enactment or Last Substantive Amendment: June 25, 2019**

40 **Notice of Continuation: November 13, 2018**

41 **Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(c)**

ITEM 6



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-072-20

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Alan Humpherys, Minor New Source Review Manager; and
David Beatty, Operating Permits Section Manager

DATE: August 19, 2020

SUBJECT: PROPOSE FOR FINAL ADOPTION: R307-401. Permit: New and Modified Sources; R307-415-9. Permits: Operating Permit Requirements. Fees for Operating Permits; and R307-801-1. Utah Asbestos Rule. Purpose and Authority.

At the June 3, 2020, Air Quality Board meeting, the Board proposed for public comment amendments to R307-401, R307-415-9, and R307-801. During the 2020 legislative session, the State Legislature passed Senate Bill 88, Environmental Quality Revisions (S.B. 88). This bill cleaned up statutory language regarding the Department of Environmental Quality, including certain sections of the Utah Code specific to air quality, namely Sections 19-1-201, 19-2-108, and 19-2-109.1. The amendments to R307-401, Permits: New and Modified Sources, and R307-415-9. Fees for Operating Permits, incorporate these changes into the air quality rules. The amendments to R307-801-1, Utah Asbestos Rule. Purpose and Authority, correct references to the Utah Code as modified by S.B. 88.

S.B. 88 aligned the process of establishing the Operating Permits fees with the current process employed by the Department of Environmental Quality and the Legislature.

The amendments to R307-401 include the requirement that a source that must have a permit cannot operate without first having obtained such a permit. In other words, operation without a permit—and not merely a failure to obtain a permit—is now a violation of R307-401. Another change in R307-401 due to the statute amendments, is that a source is required to pay the applicable new source review permitting fee as part of the permit application, and the permit application is not complete and the permit is not issued without the payment of the fee. The final changes in the rule are to clean up the language to match the statute.

A general amendment throughout the subsections of R307-415-9 allows for multiple annual emissions fees. The previous language in statute only allowed a single uniform annual fee based on the number of tons

emitted. The revised language would allow the Department to charge varying fees that could include, for example: annual base fees, varying fees for different source sizes, types, and pollutant classes, administrative fees, etc. Additionally, there were multiple amendments throughout R307-415-9 to align with the state statute and clean up outdated language.

Recommendation: Staff recommends that the Board adopt R307-401, R307-415-9, and R307-801.

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

2 **R307-401. Permit: New and Modified Sources.**

3 **R307-401-1. Purpose.**

4 This rule establishes the application and permitting
5 requirements for new installations and modifications to existing
6 installations throughout the State of Utah. Additional permitting
7 requirements apply to larger installations or installations located
8 in nonattainment or maintenance areas. These additional requirements
9 can be found in Rules R307-403, R307-405, R307-406, R307-420, and
10 R307-421. Modeling requirements in Rule R307-410 may also apply.
11 Each of the permitting rules establishes independent requirements, and
12 the owner or operator must comply with all of the requirements that
13 apply to the installation. Exemptions under R307-401 do not affect
14 applicability of the other permitting rules.

15

16 **R307-401-2. Definitions.**

17 "Actual emissions" (a) means the actual rate of emissions of an
18 air pollutant from an emissions unit, as determined in accordance with
19 Subsections R307-401-2(b) through R307-401-2(d).

20 (b) In general, actual emissions as of a particular date shall
21 equal the average rate, in tons per year, at which the unit actually
22 emitted the air pollutant during a consecutive 24-month period which
23 precedes the particular date and which is representative of normal
24 source operation. The director shall allow the use of a different time
25 period upon a determination that it is more representative of normal
26 source operation. Actual emissions shall be calculated using the
27 unit's actual operating hours, production rates, and types of
28 materials processed, stored, or combusted during the selected time
29 period.

30 (c) The director may presume that source-specific allowable
31 emissions for the unit are equivalent to the actual emissions of the
32 unit.

33 (d) For any emissions unit that has not begun normal operations
34 on the particular date, actual emissions shall equal the potential to
35 emit of the unit on that date.

36 "Best available control technology" means an emissions
37 limitation (including a visible emissions standard) based on the
38 maximum degree of reduction for each air pollutant which would be
39 emitted from any proposed stationary source or modification which the
40 director, on a case-by-case basis, taking into account energy,
41 environmental, and economic impacts and other costs, determines is
42 achievable for such source or modification through application of
43 production processes or available methods, systems, and techniques,
44 including fuel cleaning or treatment or innovative fuel combustion
45 techniques for control of such pollutant. In no event shall

1 application of best available control technology result in emissions
2 of any pollutant which would exceed the emissions allowed by any
3 applicable standard under 40 CFR parts 60 and 61. If the director
4 determines that technological or economic limitations on the
5 application of measurement methodology to a particular emissions unit
6 would make the imposition of an emissions standard infeasible, a
7 design, equipment, work practice, operational standard or combination
8 thereof, may be prescribed instead to satisfy the requirement for the
9 application of best available control technology. Such standard
10 shall, to the degree possible, set forth the emissions reduction
11 achievable by implementation of such design, equipment, work practice
12 or operation, and shall provide for compliance by means which achieve
13 equivalent results.

14 "Building, structure, facility, or installation" means all of the
15 pollutant-emitting activities which belong to the same industrial
16 grouping, are located on one or more contiguous or adjacent properties,
17 and are under the control of the same person (or persons under common
18 control) except the activities of any vessel. Pollutant-emitting
19 activities shall be considered as part of the same industrial grouping
20 if they belong to the same Major Group (i.e., which have the same
21 two-digit code) as described in the Standard Industrial Classification
22 Manual, 1972, as amended by the 1977 Supplement (U.S. Government
23 Printing Office stock numbers 4101-0066 and 003-005-00176-0,
24 respectively).

25 "Construction" means any physical change or change in the method
26 of operation (including fabrication, erection, installation,
27 demolition, or modification of an emissions unit) that would result
28 in a change in emissions.

29 "Emissions unit" means any part of a stationary source that emits
30 or would have the potential to emit any air pollutant.

31 "Fugitive emissions" means those emissions which could not
32 reasonably pass through a stack, chimney, vent, or other functionally
33 equivalent opening.

34 "Indirect source" means a building, structure, facility, or
35 installation which attracts or may attract mobile source activity that
36 results in emissions of a pollutant for which there is a national
37 standard.

38 "Potential to emit" means the maximum capacity of a stationary
39 source to emit an air pollutant under its physical and operational
40 design. Any physical or operational limitation on the capacity of the
41 source to emit a pollutant, including air pollution control equipment
42 and restrictions on hours of operation or on the type or amount of
43 material combusted, stored, or processed, shall be treated as part of
44 its design if the limitation or the effect it would have on emissions
45 is enforceable. Secondary emissions do not count in determining the

1 potential to emit of a stationary source.

2 "Secondary emissions" means emissions which occur as a result of
3 the construction or operation of a major stationary source or major
4 modification, but do not come from the major stationary source or major
5 modification itself. Secondary emissions include emissions from any
6 offsite support facility which would not be constructed or increase
7 its emissions except as a result of the construction or operation of
8 the major stationary source or major modification. Secondary emissions
9 do not include any emissions which come directly from a mobile source,
10 such as emissions from the tailpipe of a motor vehicle, from a train,
11 or from a vessel.

12 "Stationary source" means any building, structure, facility, or
13 installation which emits or may emit an air pollutant.

14
15 **R307-401-3. Applicability.**

16 (1) Rule R307-401 applies to any person planning to:

17 (a) construct a new installation that will or might reasonably
18 be expected to be a source or an indirect source of air pollution;

19 (b) make modifications to or relocate an existing installation
20 that will or might reasonably be expected to increase the amount of
21 or change the character or effect of air pollutants discharged, so that
22 the installation may be expected to be a source or indirect source of
23 air pollution; or

24 (c) install an air cleaning device or other equipment intended
25 to control emission of air pollutants.

26 (2) Rules R307-403, R307-405 and R307-406 may establish
27 additional permitting requirements for new or modified sources.

28 (a) Exemptions contained in Rule R307-401 do not affect
29 applicability or other requirements under Rules R307-403, R307-405 or
30 R307-406.

31 (b) Exemptions contained in Rules R307-403, R307-405 or
32 R307-406 do not affect applicability or other requirements under Rule
33 R307-401, unless specifically authorized in this rule.

34
35 **R307-401-4. General Requirements.**

36 The general requirements in Subsections R307-401-4(1) through
37 R307-401-4(4) apply to all new and modified installations, including
38 installations that are exempt from the requirement to obtain an
39 approval order.

40 (1) Any control apparatus installed on an installation shall be
41 adequately and properly maintained.

42 (2) If the director determines that an exempted installation is
43 not meeting an approval order or State Implementation Plan limitation,
44 is creating an adverse impact to the environment, or would be injurious
45 to human health or welfare, the director may require the owner or

1 operator to submit a notice of intent and obtain an approval order in
2 accordance with Sections R307-401-5 through R307-401-8. The director
3 will complete an appropriate analysis and evaluation in consultation
4 with the owner or operator before determining that an approval order
5 is required.

6 (3) Low Oxides of Nitrogen Burner Technology.

7 (a) Except as provided in Subsection R307-401-4(3)(b), whenever
8 existing fuel combustion burners are replaced, the owner or operator
9 shall install low oxides of nitrogen burners or equivalent oxides of
10 nitrogen controls, as determined by the director, unless such
11 equipment is not physically practical or cost effective. The owner or
12 operator shall submit a demonstration that the equipment is not
13 physically practical or cost effective to the director for review and
14 approval prior to beginning construction.

15 (b) The provisions of (a) above do not apply to non-commercial,
16 residential buildings.

17 (4) A person shall not operate a source of air pollution that
18 is required to have a permit under Rule R307-401 unless the person has
19 obtained a permit for the source under the procedures of Rule R307-401.
20

21 **R307-401-5. Notice of Intent.**

22 (1) Except as provided in Sections R307-401-9 through
23 R307-401-17, any person subject to Rule R307-401 shall submit a notice
24 of intent to the director and receive an approval order precedent to
25 the construction, modification, installation, establishment, or
26 relocation of an air pollutant source or indirect source. The notice
27 of intent shall be in a format specified by the director.

28 (2) The notice of intent shall include the following
29 information:

30 (a) A description of the nature of the processes involved; the
31 nature, procedures for handling and quantities of raw materials; the
32 type and quantity of fuels employed; and the nature and quantity of
33 finished product.

34 (b) The expected composition and physical characteristics of
35 effluent stream both before and after treatment by any control
36 apparatus, including emission rates, volume, temperature, air
37 pollutant types, and concentration of air pollutants.

38 (c) The size, type, and performance characteristics of any
39 control apparatus.

40 (d) An analysis of best available control technology for the
41 proposed source or modification. When determining best available
42 control technology for a new or modified source in an ozone
43 nonattainment or maintenance area that will emit volatile organic
44 compounds or nitrogen oxides, the owner or operator of the source shall
45 consider EPA Control Technique Guidance (CTG) documents and

1 Alternative Control Technique documents that are applicable to the
2 source. Best available control technology shall be at least as
3 stringent as any published CTG that is applicable to the source.

4 (e) The location and elevation of the emission point and other
5 factors relating to dispersion and diffusion of the air pollutant in
6 relation to nearby structures and window openings, and other
7 information necessary to appraise the possible effects of the
8 effluent.

9 (f) The location of planned sampling points and the tests of the
10 completed installation to be made by the owner or operator when
11 necessary to ascertain compliance.

12 (g) The typical operating schedule.

13 (h) A schedule for construction.

14 (i) Any plans, specifications and related information that are
15 in final form at the time of submission of notice of intent.

16 (j) Any additional information required by:

17 (i) Rule R307-403, Permits: New and Modified Sources in
18 Nonattainment Areas and Maintenance Areas;

19 (ii) Rule R307-405, Permits: Major Sources in Attainment or
20 Unclassified Areas (PSD);

21 (iii) Rule R307-406, Visibility;

22 (iv) Rule R307-410, Permits: Emissions Impact Analysis;

23 (v) Rule R307-420, Permits: Ozone Offset Requirements in Davis
24 and Salt Lake Counties; or

25 (vi) Rule R307-421, Permits: PM10 Offset Requirements in Salt
26 Lake County and Utah County.

27 (k) Any other information necessary to determine if the proposed
28 construction, modification, installation, or establishment will be in
29 accord with Title R307.

30 (l) The payment of a new source review fee established under
31 Subsection 19-1-201(6)(i).

32 (3) Notwithstanding the exemptions in Sections R307-401-9
33 through R307-401-16, any person that is subject to Rules R307-403,
34 R307-405, or R307-406 shall submit a notice of intent to the director
35 and receive an approval order precedent to the construction,
36 modification, installation, establishment, or relocation of an air
37 pollutant source or indirect source.

38 39 **R307-401-6. Review Period.**

40 (1) Completeness Determination. Within 30 days after receipt of
41 a notice of intent, or any additional information necessary to the
42 review, the director will advise the applicant of any deficiency in
43 the notice of intent or the information submitted.

44 (2) Within 90 days after the receipt of a complete application
45 including all the information described in Section R307-401-5, the

1 director will

2 (a) issue an approval order for the proposed construction,
3 installation, modification, relocation, or establishment pursuant to
4 the requirements of Section R307-401-8, or

5 (b) issue an order prohibiting the proposed construction,
6 installation, modification, relocation or establishment if it is
7 determined that any part of the proposal will not be in the accord with
8 the requirements of Title R307.

9 (3) The review period under Subsection R307-401-6(2) may be
10 extended by up to three 30-day extensions if more time is needed to
11 review the proposal.

12

13 **R307-401-7. Public Notice.**

14 (1) Issuing the Notice. Prior to issuing an approval or
15 disapproval order, the director will advertise intent to approve or
16 disapprove in a newspaper of general circulation in the locality of
17 the proposed construction, installation, modification, relocation or
18 establishment.

19 (2) Opportunity for Review and Comment.

20 (a) At least one location will be provided where the information
21 submitted by the owner or operator, the director's analysis of the
22 notice of intent proposal, and the proposed approval order conditions
23 will be available for public inspection.

24 (b) Public Comment.

25 (i) A 30-day public comment period will be established.

26 (ii) A request to extend the length of the comment period, up
27 to 30 days, may be submitted to the director within 15 days of the date
28 the notice in Subsection R307-401-7(1) is published.

29 (iii) Public Hearing. A request for a hearing on the proposed
30 approval or disapproval order may be submitted to the director within
31 15 days of the date the notice in Subsection R307-401-7(1) is
32 published.

33 (iv) The hearing will be held in the area of the proposed
34 construction, installation, modification, relocation or
35 establishment.

36 (v) The public comment and hearing procedure shall not be
37 required when an order is issued for the purpose of extending the time
38 required by the director to review plans and specifications.

39 (3) The director will consider all comments received during the
40 public comment period and at the public hearing and, if appropriate,
41 will make changes to the proposal in response to comments before
42 issuing an approval order or disapproval order.

43

44 **R307-401-8. Approval Order.**

45 (1) The director will issue an approval order if the following

1 conditions have been met:

2 (a) The degree of pollution control for emissions, to include
3 fugitive emissions and fugitive dust, is at least best available
4 control technology. When determining best available control
5 technology for a new or modified source in an ozone nonattainment or
6 maintenance area that will emit volatile organic compounds or nitrogen
7 oxides, best available control technology shall be at least as
8 stringent as any Control Technique Guidance document that has been
9 published by EPA that is applicable to the source.

10 (b) The proposed installation will meet the applicable
11 requirements of:

12 (i) Rule R307-403, Permits: New and Modified Sources in
13 Nonattainment Areas and Maintenance Areas;

14 (ii) Rule R307-405, Permits: Major Sources in Attainment or
15 Unclassified Areas (PSD);

16 (iii) Rule R307-406, Visibility;

17 (iv) Rule R307-410, Permits: Emissions Impact Analysis;

18 (v) Rule R307-420, Permits: Ozone Offset Requirements in Davis
19 and Salt Lake Counties;

20 (vi) Rule R307-210, Standards of Performance for New Stationary
21 Sources;

22 (vii) National Primary and Secondary Ambient Air Quality
23 Standards;

24 (viii) Rule R307-214, National Emission Standards for Hazardous
25 Air Pollutants;

26 (ix) Rule R307-110, General Requirements: State Implementation
27 Plan; and

28 (x) all other provisions of Title R307.

29 (2) The approval order will require that all pollution control
30 equipment be adequately and properly maintained.

31 (3) Receipt of an approval order does not relieve any owner or
32 operator of the responsibility to comply with the provisions of Title
33 R307 or the State Implementation Plan.

34 (4) To accommodate staged construction of a large source, the
35 director may issue an order authorizing construction of an initial
36 stage prior to receipt of detailed plans for the entire proposal
37 provided that, through a review of general plans, engineering reports
38 and other information the proposal is determined feasible by the
39 director under the intent of Title R307. Subsequent detailed plans will
40 then be processed as prescribed in this paragraph. For staged
41 construction projects the previous determination under Subsections
42 R307-401-8(1) and (2) will be reviewed and modified as appropriate at
43 the earliest reasonable time prior to commencement of construction of
44 each independent phase of the proposed source or modification.

45 (5) If the director determines that a proposed stationary

1 source, modification or relocation does not meet the conditions
2 established in (1) above, the director will not issue an approval
3 order.

4
5 **R307-401-9. Small Source Exemption.**

6 (1) A small stationary source is exempt from the requirement to
7 obtain an approval order in Sections R307-401-5 through R307-401-8 if
8 the following conditions are met.

9 (a) its actual emissions are less than 5 tons per year per air
10 pollutant of any of the following air pollutants: sulfur dioxide,
11 carbon monoxide, nitrogen oxides, PM₁₀, ozone, or volatile organic
12 compounds;

13 (b) its actual emissions are less than 500 pounds per year of
14 any hazardous air pollutant and less than 2000 pounds per year of any
15 combination of hazardous air pollutants;

16 (c) its actual emissions are less than 500 pounds per year of
17 any air pollutant not listed in (a) or (b) above and less than 2000
18 pounds per year of any combination of air pollutants not listed in (a)
19 or (b) above.

20 (d) Air pollutants that are drawn from the environment through
21 equipment in intake air and then are released back to the environment
22 without chemical change, as well as carbon dioxide, nitrogen, oxygen,
23 argon, neon, helium, krypton, xenon should not be included in emission
24 calculations when determining applicability under (a) through (c)
25 above.

26 (2) The owner or operator of a source that is exempted from the
27 requirement to obtain an approval order under (1) above shall no longer
28 be exempt if actual emissions in any subsequent year exceed the
29 emission thresholds in (1) above. The owner or operator shall submit
30 a notice of intent under Section R307-401-5 no later than 180 days after
31 the end of the calendar year in which the source exceeded the emission
32 threshold.

33 (3) Small Source Exemption - Registration. The director will
34 maintain a registry of sources that are claiming an exemption under
35 Section R307-401-9. The owner or operator of a stationary source that
36 is claiming an exemption under Section R307-401-9 may submit a written
37 registration notice to the director. The notice shall include the
38 following minimum information:

39 (a) identifying information, including company name and
40 address, location of source, telephone number, and name of plant site
41 manager or point of contact;

42 (b) a description of the nature of the processes involved,
43 equipment, anticipated quantities of materials used, the type and
44 quantity of fuel employed and nature and quantity of the finished
45 product;

- 1 (c) identification of expected emissions;
- 2 (d) estimated annual emission rates;
- 3 (e) any control apparatus used; and
- 4 (f) typical operating schedule.

5 (4) An exemption under Section R307-401-9 does not affect the
6 requirements of Section R307-401-17, Temporary Relocation.

7 (5) A stationary source that is not required to obtain a permit
8 under Rule R307-405 for greenhouse gases, as defined in Subsection
9 R307-405-3(9)(a), is not required to obtain an approval order for
10 greenhouse gases under Rule R307-401. This exemption does not affect
11 the requirement to obtain an approval order for any other air pollutant
12 emitted by the stationary source.

13 14 **R307-401-10. Source Category Exemptions.**

15 The source categories described in Section R307-401-10 are exempt
16 from the requirement to obtain an approval order found in Sections
17 R307-401-5 through R307-401-8. The general provisions in Section
18 R307-401-4 shall apply to these sources.

19 (1) Fuel-burning equipment in which combustion takes place at
20 no greater pressure than one inch of mercury above ambient pressure
21 with a rated capacity of less than five million BTU per hour using no
22 other fuel than natural gas or LPG or other mixed gas that meets the
23 standards of gas distributed by a utility in accordance with the rules
24 of the Public Service Commission of the State of Utah, unless there
25 are emissions other than combustion products.

26 (2) Comfort heating equipment such as boilers, water heaters,
27 air heaters and steam generators with a rated capacity of less than
28 one million BTU per hour if fueled only by fuel oil numbers 1 - 6,

29 (3) Emergency heating equipment, using coal or wood for fuel,
30 with a rated capacity less than 50,000 BTU per hour.

31 (4) Exhaust systems for controlling steam and heat that do not
32 contain combustion products.

33 (5) A well site as defined in 40 CFR 60.5430a, including
34 centralized tank batteries, that is not a major source as defined in
35 Section R307-101-2, and is registered with the Division as required
36 by Rule R307-505.

37 (6) A gasoline dispensing facility as defined in 40 CFR 63.11132
38 that is not a major source as defined in Section R307-101-2. These
39 sources shall comply with the applicable requirements of Rule R307-328
40 and 40 CFR 63 Subpart CCCCC: National Emission Standards for
41 Hazardous Air Pollutants for Source Category: Gasoline Dispensing
42 Facilities.

43 44 **R307-401-11. Replacement-in-Kind Equipment.**

45 (1) Applicability. Existing process equipment or pollution

1 control equipment that is covered by an existing approval order or
2 State Implementation Plan requirement may be replaced using the
3 procedures in (2) below if:

4 (a) the potential to emit of the process equipment is the same
5 or lower;

6 (b) the number of emission points or emitting units is the same
7 or lower;

8 (c) no additional types of air pollutants are emitted as a result
9 of the replacement;

10 (d) the process equipment or pollution control equipment is
11 identical to or functionally equivalent to the replaced equipment;

12 (e) the replacement does not change the basic design parameters
13 of the process unit or pollution control equipment;

14 (f) the replaced process equipment or pollution control
15 equipment is permanently removed from the stationary source, otherwise
16 permanently disabled, or permanently barred from operation;

17 (g) the replacement process equipment or pollution control
18 equipment does not trigger New Source Performance Standards or
19 National Emissions Standards for Hazardous Air Pollutants under 42
20 U.S.C. 7411 or 7412; and

21 (h) the replacement of the control apparatus or process
22 equipment does not violate any other provision of Title R307.

23 (2) Replacement-in-Kind Procedures.

24 (a) In lieu of filing a notice of intent under Section
25 R307-401-5, the owner or operator of a stationary source shall submit
26 a written notification to the director before replacing the equipment.
27 The notification shall contain a description of the
28 replacement-in-kind equipment, including the control capability of
29 any control apparatus and a demonstration that the conditions of (1)
30 above are met.

31 (b) If the replacement-in-kind meets the conditions of (1)
32 above, the director will update the source's approval order and notify
33 the owner or operator. Public review under Section R307-401-7 is not
34 required for the update to the approval order.

35 (3) If the replaced process equipment or pollution control
36 equipment is brought back into operation, it shall constitute a new
37 emissions unit.

38
39 **R307-401-12. Reduction in Air Pollutants.**

40 (1) Applicability. The owner or operator of a stationary source
41 of air pollutants that reduces or eliminates air pollutants is exempt
42 from the requirement to submit a notice of intent and obtain an approval
43 order prior to construction if:

44 (a) the project does not increase the potential to emit of any
45 air pollutant or cause emissions of any new air pollutant, and

1 (b) the director is notified of the change and the reduction of
2 air pollutants is made enforceable through an approval order in
3 accordance with (2) below.

4 (2) Notification. The owner or operator shall submit a written
5 description of the project to the director no later than 60 days after
6 the changes are made. The director will update the source's approval
7 order or issue a new approval order to include the project and to make
8 the emission reductions enforceable. Public review under Section
9 R307-401-7 is not required for the update to the approval order.

10
11 **R307-401-13. Plantwide Applicability Limits.**

12 A plantwide applicability limit under Section R307-405-21 does
13 not exempt a stationary source from the requirements of R307-401.

14
15 **R307-401-14. Used Oil Fuel Burned for Energy Recovery.**

16 (1) Definitions.

17 "Boiler" means boiler as defined in R315-1-1(b).

18 "Used Oil" is defined as any oil that has been refined from crude
19 oil, used, and, as a result of such use contaminated by physical or
20 chemical impurities.

21 (2) Boilers burning used oil for energy recovery are exempt from
22 the requirement to obtain an approval order in Sections R307-401-5
23 through R307-401-8 if the following requirements are met:

24 (a) the heat input design is less than one million BTU/hr;

25 (b) contamination levels of all used oil to be burned do not
26 exceed any of the following values:

27 (i) arsenic - 5 ppm by weight,

28 (ii) cadmium - 2 ppm by weight,

29 (iii) chromium - 10 ppm by weight,

30 (iv) lead - 100 ppm by weight,

31 (v) total halogens - 1,000 ppm by weight,

32 (vi) Sulfur - 0.50% by weight; and

33 (c) the flash point of all used oil to be burned is at least 100
34 degrees Fahrenheit.

35 (3) Testing. The owner or operator shall test each load of used
36 oil received or generated as directed by the director to ensure it meets
37 these requirements. Testing may be performed by the owner or operator
38 or documented by test reports from the used fuel oil vendor. The flash
39 point shall be measured using the appropriate ASTM method as required
40 by the director. Records for used oil consumption and test reports are
41 to be kept for all periods when fuel-burning equipment is in operation.
42 The records shall be kept on site and made available to the director
43 or the director's representative upon request. Records must be kept
44 for a three-year period.

45

1 **R307-401-15. Air Strippers and Soil Venting Projects.**

2 (1) The owner or operator of an air stripper or soil venting
3 system that is used to remediate contaminated groundwater or soil is
4 exempt from the notice of intent and approval order requirements of
5 Sections R307-401-5 through R307-401-8 if the following conditions are
6 met:

7 (a) the estimated total air emissions of volatile organic
8 compounds from a given project are less than the de minimis emissions
9 listed in Subsection R307-401-9(1)(a), and

10 (b) the level of any one hazardous air pollutant or any
11 combination of hazardous air pollutants is below the levels listed in
12 Subsection R307-410-5(1)(c)(i)(C).

13 (2) The owner or operator shall submit documentation that the
14 project meets the exemption requirements in Subsection R307-401-15(1)
15 to the director prior to beginning the remediation project.

16 (3) After beginning the soil remediation project, the owner or
17 operator shall submit emissions information to the director to verify
18 that the emission rates of the volatile organic compounds and hazardous
19 air pollutants in Subsection R307-401-15(1) are not exceeded.

20 (a) Emissions estimates of volatile organic compounds shall be
21 based on test data obtained in accordance with the test method in the
22 EPA document SW-846, Test #8260c or 8261a, or the most recent EPA
23 revision of either test method if approved by the director.

24 (b) Emissions estimates of hazardous air pollutants shall be
25 based on test data obtained in accordance with the test method in EPA
26 document SW-846, Test #8021B or the most recent EPA revision of the
27 test method if approved by the director.

28 (c) Results of the test and calculated annual quantity of
29 emissions of volatile organic compounds and hazardous air pollutants
30 shall be submitted to the director within one month of sampling.

31 (d) The test samples shall be drawn on intervals of no less than
32 twenty-eight days and no more than thirty-one days (i.e., monthly) for
33 the first quarter, quarterly for the first year, and semi-annually
34 thereafter or as determined necessary by the director.

35 (4) The following control devices do not require a notice of
36 intent or approval order when used in relation to an air stripper or
37 soil venting project exempted under Section R307-401-15:

38 (a) thermodestruction unit with a rated input capacity of less
39 than five million BTU per hour using no other auxiliary fuel than
40 natural gas or LPG, or

41 (b) carbon adsorption unit.

42
43 **R307-401-16. De minimis Emissions From Soil Aeration Projects.**

44 An owner or operator of a soil remediation project is not subject
45 to the notice of intent and approval order requirements of Sections

1 R307-401-5 through R307-401-8 when soil aeration or land farming is
2 used to conduct a soil remediation, if the owner or operator submits
3 the following information to the director prior to beginning the
4 remediation project:

5 (1) documentation that the estimated total air emissions of
6 volatile organic compounds, using an appropriate sampling method, from
7 the project are less than the de minimis emissions listed in Subsection
8 R307-401-9(1)(a);

9 (2) documentation that the levels of any one hazardous air
10 pollutant or any combination of hazardous air pollutants are less than
11 the levels in Subsection R307-410-5(1)(d); and

12 (3) the location of the remediation and where the remediated
13 material originated.

14
15 **R307-401-17. Temporary Relocation.**

16 The owner or operator of a stationary source previously approved
17 under Rule R307-401 may temporarily relocate and operate the
18 stationary source at any site for up to 180 working days in any calendar
19 year not to exceed 365 consecutive days, starting from the initial
20 relocation date. The director will evaluate the expected emissions
21 impact at the site and compliance with applicable Title R307 rules as
22 the basis for determining if approval for temporary relocation may be
23 granted. Records of the working days at each site, consecutive days
24 at each site, and actual production rate shall be submitted to the
25 director at the end of each 180 calendar days. These records shall also
26 be kept on site by the owner or operator for the entire project, and
27 be made available for review to the director as requested. Section
28 R307-401-7, Public Notice, does not apply to temporary relocations
29 under Section R307-401-17.

30
31 **R307-401-18. Eighteen Month Review.**

32 Approval orders issued by the director in accordance with the
33 provisions of Rule R307-401 will be reviewed eighteen months after the
34 date of issuance to determine the status of construction,
35 installation, modification, relocation or establishment. If a
36 continuous program of construction, installation, modification,
37 relocation or establishment is not proceeding, the director may revoke
38 the approval order.

39
40 **R307-401-19. General Approval Order.**

41 (1) The director may issue a general approval order that would
42 establish conditions for similar new or modified sources of the same
43 type or for specific types of equipment. The general approval order
44 may apply throughout the state or in a specific area.

45 (a) A major source or major modification as defined in Rules

1 R307-403, R307-405, or R307-420 for each respective area is not
2 eligible for coverage under a general approval order.

3 (b) A source that is subject to the requirements of Section
4 R307-403-5 is not eligible for coverage under a general approval order.

5 (c) A source that is subject to the requirements of Section
6 R307-410-4 is not eligible for coverage under a general approval order
7 unless a demonstration that meets the requirements of Section
8 R307-410-4 was conducted.

9 (d) A source that is subject to the requirements of Subsection
10 R307-410-5(1)(c)(ii) is not eligible for coverage under a general
11 approval order unless a demonstration that meets the requirements of
12 Subsection R307-410-5(1)(c)(ii) was conducted.

13 (e) A source that is subject to the requirements of Subsection
14 R307-410-5(1)(c)(iii) is not eligible for coverage under a general
15 approval order.

16 (2) A general approval order shall meet all applicable
17 requirements of Section R307-401-8.

18 (3) The public notice requirements in Section R307-401-7 shall
19 apply to a general approval order except that the director will
20 advertise the notice of intent in a newspaper of statewide circulation.

21 (4) Application.

22 (a) After a general approval order has been issued, the owner
23 or operator of a proposed new or modified source may apply to be covered
24 under the conditions of the general approval order.

25 (b) The owner or operator shall submit the application on forms
26 provided by the director in lieu of the notice of intent requirements
27 in Section R307-401-5 for all equipment covered by the general approval
28 order.

29 (c) The owner or operator may request that an existing,
30 individual approval order for the source be revoked, and that it be
31 covered by the general approval order.

32 (d) The owner or operator that has applied to be covered by a
33 general approval order shall not initiate construction, modification,
34 or relocation until the application has been approved by the director.

35 (5) Approval.

36 (a) The director will review the application and approve or deny
37 the request based on criteria specified in the general approval order
38 for that type of source. If approved, the director will issue an
39 authorization to the applicant to operate under the general approval
40 order.

41 (b) The public notice requirements in Section R307-401-7 do not
42 apply to the approval of an application to be covered under the general
43 approval order.

44 (c) The director will maintain a record of all stationary
45 sources that are covered by a specific general approval order and this

1 record will be available for public review.

2 (6) Exclusions and Revocation.

3 (a) The director may require any source that has applied for or
4 is authorized by a general approval order to submit a notice of intent
5 and obtain an individual approval order under Section R307-401-8.
6 Cases where an individual approval order will be required include, but
7 are not limited to, the following:

8 (i) the director determines that the source does not meet the
9 criteria specified in the general approval order;

10 (ii) the director determines that the application for the
11 general approval order did not contain all necessary information to
12 evaluate applicability under the general approval order;

13 (iii) modifications were made to the source that were not
14 authorized by the general approval order or an individual approval
15 order;

16 (iv) the director determines the source may cause a violation
17 of a national ambient air quality standard; or

18 (v) the director determines that one is required based on the
19 compliance history and current compliance status of the source or
20 applicant.

21 (b)(i) Any source authorized by a general approval order may
22 request to be excluded from the coverage of the general approval order
23 by submitting a notice of intent under Section R307-401-5 and receiving
24 an individual approval order under Section R307-401-8.

25 (ii) When the director issues an individual approval order to
26 a source subject to a general approval order, the applicability of the
27 general approval order to the individual source is revoked on the
28 effective date of the individual approval order.

29 (7) Modification of General Approval Order. The director may
30 modify, replace, or discontinue the general approval order.

31 (a) Administrative corrections may be made to the existing
32 version of the general approval order. These corrections are to correct
33 typographical errors or similar minor administrative changes.

34 (b) All other modifications or the discontinuation of a general
35 approval order shall not apply to any source authorized under previous
36 versions of the general approval order unless the owner or operator
37 submits an application to be covered under the new version of the
38 general approval order. Modifications under Subsection
39 R307-401-19(7)(b) shall meet the public notice requirements in
40 Subsection R307-401-19(3).

41 (c) A general approval order shall be reviewed at least every
42 three years. The review of the general approval order shall follow
43 the public notice requirements of Subsection R307-401-19(3).

44 (8) Modifications at a source covered by a general approval
45 order. A source may make modifications only as authorized by the

1 approved general approval order. Modifications outside the scope
2 authorized by the approved general approval order shall require a new
3 application for either an individual approval order under Section
4 R307-401-8 or a general approval order under Section R307-401-19.

5

6 **KEY: air pollution, permits, approval orders, greenhouse gases**
7 **Date of Enactment or Last Substantive Amendment: June 6, 2019**
8 **Notice of Continuation: May 15, 2017**
9 **Authorizing, and Implemented or Interpreted Law: 19-2-104(3)(q);**
10 **19-2-108**

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

2 **R307-415. Permits: Operating Permit Requirements.**

3 **R307-415-9. Fees for Operating Permits.**

4 (1) Definitions. The following definition applies only to
5 Subsection R307-415-9: "Allowable emissions" are emissions based on
6 the potential to emit stated by the director in an approval order, the
7 State Implementation Plan or an operating permit.

8 (2) Applicability. As authorized by Section 19-1-201, all Part
9 70 sources must pay annual fees to support the operating permit
10 program.

11 (3) Calculation of Annual Emission Fee for a Part 70 Source.

12 (a) The emission fee shall be calculated for all chargeable
13 pollutants emitted from a Part 70 source, even if only one unit or one
14 chargeable pollutant triggers the applicability of Rule R307-415 to
15 the source.

16 (i) Fugitive emissions and fugitive dust shall be counted when
17 determining the emission fee for a Part 70 source.

18 (ii) An emission fee shall not be charged for emissions of any
19 amount of a chargeable pollutant if the emissions are already accounted
20 for within the emissions of another chargeable pollutant.

21 (iii) An emission fee shall not be charged for emissions of any
22 one chargeable pollutant from any one Part 70 source in excess of 4,000
23 tons per year.

24 (iv) Emissions resulting directly from an internal combustion
25 engine for transportation purposes or from a non-road vehicle shall
26 not be counted when calculating chargeable emissions for a Part 70
27 source.

28 (b) The emission fee portion of the total fee for an existing
29 source prior to the issuance of an operating permit, shall be based
30 on the most recent emission inventory available unless a Part 70 source
31 elected, prior to July 1, 1992, to base the fee for one or more
32 pollutants on allowable emissions established in an approval order or
33 the State Implementation Plan.

34 (c) The emission fee portion of the total fee after the issuance
35 or renewal of an operating permit shall be based on the most recent
36 emission inventory available unless a Part 70 source elects, prior to
37 the issuance or renewal of the permit, to base the fee for one or more
38 chargeable pollutants on allowable emissions for the entire term of
39 the permit.

40 (d) When a new Part 70 source begins operating, it shall pay the
41 emission fee portion of the total fee for that fiscal year, prorated
42 from the date the source begins operating plus any additional Part 70
43 fees. The emission fee portion of the total fee for a new Part 70 source
44 shall be based on allowable emissions until that source has been in
45 operation for a full calendar year, and has submitted an inventory of

1 actual emissions. If a new Part 70 source is not billed in the first
2 billing cycle of its operation, the emission fee plus any additional
3 fees shall be calculated using the emissions that would have been used
4 had the source been billed at that time. This fee shall be in addition
5 to any subsequent emission fees.

6 (e) When a Part 70 source is no longer subject to Part 70, the
7 emission fee portion of the total fee shall be prorated to the date
8 that the source ceased to be subject to Part 70. If the Part 70 source
9 has already paid an emission fee that is greater than the prorated fee,
10 the balance of the emission fee will be refunded. No other Part 70 fees
11 shall be refunded.

12 (i) If that Part 70 source again becomes subject to the emission
13 fee requirements, it shall pay an emission fee for that fiscal year
14 prorated from the date the source again became subject to the emission
15 fee requirements plus any additional fees typically charged for Part
16 70 sources for that year. The fee shall be based on the emission
17 inventory during the last full year of operation. The emission fee
18 shall continue to be based on actual emissions reported for the last
19 full calendar year of operation until that source has been in operation
20 for a full calendar year and has submitted an updated inventory of
21 actual emissions.

22 (ii) If a Part 70 source has chosen to base the emission fee on
23 allowable emissions, then the prorated fee shall be calculated using
24 allowable emissions.

25 (f) Modifications. The method for calculating the emission fee
26 for a source shall not be affected by modifications at that source,
27 unless the source demonstrates to the director that another method for
28 calculating chargeable emissions is more representative of operations
29 after the modification has been made.

30 (g) The director may presume that potential emissions of any
31 chargeable pollutant for the source are equivalent to the actual
32 emissions for the source if recent inventory data are not available.

33 (4) Collection of Fees.

34 (a) The Part 70 fees are due on October 1 of each calendar year
35 or 45 days after the source has received notice of the amount of the
36 fee, whichever is later.

37 (b) The director may require any owner or operator of the source
38 who fails to pay the annual fees by the due date to pay interest on
39 the fee and a penalty under Subsection 19-2-109.1(4)(a) or revoke the
40 operating permit under Subsection 19-2-109.1(4)(b).

41 (c) An owner or operator may contest a Part 70 fee assessment,
42 or associated penalty, under 19-2-109.1(5).

43 (d) To reinstate the permit revoked under Subsection
44 19-2-109.1(4)(b), an owner or operator shall pay the outstanding fees,
45 a penalty of not more than 50% of outstanding fees, and interests on

1 the outstanding fees computed at 12% annually.

2

3 **KEY: air pollution, greenhouse gases, operating permit, emission**
4 **fees**

5 **Date of Enactment or Last Substantive Amendment: February 4, 2016**

6 **Notice of Continuation: May 15, 2017**

7 **Authorizing, and Implemented or Interpreted Law: 19-2-109.1;**

8 **19-2-104**

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

2 **R307-801. Utah Asbestos Rule.**

3 **R307-801-1. Purpose and Authority.**

4 This rule establishes procedures and requirements for asbestos
5 abatement or renovation projects and training programs, procedures and
6 requirements for the certification of persons and companies engaged
7 in asbestos abatement or renovation projects, and work practice
8 standards for performing such projects. This rule is promulgated under
9 the authority of Subsections 19-2-104(1)(d), (3)(a)(iii),
10 (3)(b)(iv)(A), (B), and (C), (3)(b)(v), (6)(a), and (6)(b). Penalties
11 are authorized by Section 19-2-115. Fees are authorized by Section
12 19-1-201 (6)(i).

13

14 **KEY: air pollution, asbestos, asbestos hazard emergency response,**
15 **schools**

16 **Date of Enactment or Last Substantive Amendment: May 5, 2016**

17 **Notice of Continuation: March 8, 2018**

18 **Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(d);**
19 **19-2-104(3)(r) through (t); 40 CFR Part 61, Subpart M; 40 CFR Part 763,**
20 **Subpart E**

ITEM 7



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-073-20

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Catherine Wyffels, Environmental Engineer

DATE: August 19, 2020

SUBJECT: PROPOSE FOR PUBLIC COMMENT: Amendment to Utah State Implementation Plan. Emission Limits and Operating Practices. Section IX, Part H; and R307-110-17. Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits.

The Utah Division of Air Quality (UDAQ) is proposing to amend Section IX, Part H of the State Implementation Plan (SIP). This amendment is necessary for Environmental Protection Agency (EPA) approval of required SIP elements in order to redesignate the Salt Lake City, UT nonattainment area, to attainment status.

On February 15, 2019, UDAQ submitted to EPA the Air Quality Board-approved PM_{2.5} Serious Area SIP, including Part A and Part H. EPA is in the process of reviewing the technical support documentation (TSD) and emission limits in Section IX, Part H of the PM_{2.5} SIP. In order for EPA to redesignate an area from nonattainment to attainment status, the area must have a fully approved attainment SIP. Therefore, approval of the control measures in Part H is a necessary step for full approval of the PM_{2.5} Serious Area SIP.

As part of this review process, EPA reviewed the best available control technology (BACT) analyses in the TSD and the emission limits in Part H derived from these BACT analyses. EPA has indicated that it concurs with UDAQ's BACT analyses and Part H limits, with the exception of the startup, shutdown, malfunction (SSM) limits for Kennecott's Power Plant. These conditions apply to Units 4 and 5 and are intended to limit emissions from startup events. EPA found that these provisions were not sufficiently supported in the TSD and are not approvable based on the technical information included in the TSD.

In addition, there are some uncertainties related to EPA's SSM policy. SSM exemptions in SIPs is an issue that has been litigated since 2008, when a D.C court decision found that SSM exemptions are unlawful in federal regulations. Most recently, the Sierra Club sued EPA for including SSM exemptions in the North

Carolina SIP. This most recent lawsuit will be heard in the D.C. circuit and could have nationwide ramifications on SSM policies. The court is waiting for EPA to finish its reconsideration of the SSM policy before ruling on the lawsuits.

Given the uncertainty with EPA's nationwide SSM policy and the lack of supporting documentation in the TSD, EPA has stated that the SSM provisions for the power plant in Part H are not approvable.

Since Kennecott's Power Plant has been shut down and the units subject to these provisions are no longer in operation, UDAQ is proposing to remove these provisions from Part H to ensure that these limits do not delay EPA approval of the PM_{2.5} Serious Area SIP and redesignation to attainment. Kennecott has reviewed the proposed changes and agrees with the removal of the SSM provisions from Part H.

R307-110-17 is the rule that incorporates Part H into the air quality rules. This rule needs to be amended to update the incorporation date to reflect the changes made in Part H.

Recommendation: Staff recommends that the Board propose SIP Subsection IX. Part H: Emission Limits and Operating Practices; and R307-110-17 for public comment.

Utah State Implementation Plan

Emission Limits and Operating Practices

Section IX, Part H

Proposed:

Adopted by the Air Quality Board

December 2, 2020

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 68°F. 29.92 in Hg	ppmdv 3% O ₂	lbs/hr	lbs/MMBtu	[lbs/event]
1. PM _{2.5} :					
Filterable	0.004				
Filterable + condensable	0.03				
2. NO _x :		30	32	0.04	
[Startup / Shutdown					395

~~III. Startup / Shutdown Limitations:~~

- ~~1. The total number of startups and shutdowns together shall not exceed 690 per calendar year.~~
- ~~2. The NO_x emissions shall not exceed 395 lbs from each startup/shutdown event, which shall be determined using manufacturer data.~~

~~3. Definitions:~~

- ~~(i) Startup cycle duration ends when the unit achieves half of the design electrical generation capacity.~~
- ~~(ii) Shutdown duration cycle begins with the initiation of boiler shutdown and ends when fuel flow to the boiler is discontinued.]~~

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. PM _{2.5}	every year
II. NO _x	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	lbs/event	ppmdv (15% O ₂ dry)
I. PM _{2.5} with duct firing: Filterable + condensable	18.8		
II. VOC:			2.0[*]
III. NO _x : {Startup / Shutdown	395		2.0[*]

~~* Except during startup and shutdown.~~

~~IV. Startup / Shutdown Limitations:-~~

~~1. The total number of startups and shutdowns together shall not exceed 690 per calendar year.~~

~~2. The NO_x emissions shall not exceed 395 lbs from each startup/shutdown event, which shall be determined using manufacturer data.~~

~~3. Definitions:-~~

~~(i) Startup cycle duration ends when the unit achieves half of the design electrical generation capacity.~~

~~(ii) Shutdown duration cycle begins with the initiation of boiler shutdown and ends when fuel flow to the boiler is discontinued.]~~

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. PM _{2.5}	every year
II. NO _x	every year
III. VOC	every year

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

2 **R307-110. General Requirements: State Implementation Plan.**

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

5 The Utah State Implementation Plan, Section IX, Control Measures
6 for Area and Point Sources, Part H, Emission Limits and Operating
7 Practices, as most recently amended by the Utah Air Quality Board on
8 December 2[4], 2020[~~19~~], pursuant to Section 19-2-104, is hereby
9 incorporated by reference and made a part of these rules.

10

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

12 **Date of Enactment or Last Substantive Amendment: December 5, 2019**

13 **Notice of Continuation: January 27, 2017**

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

State of Utah
Administrative Rule Analysis
Revised May 2020

NOTICE OF PROPOSED RULE		
TYPE OF RULE: New ___; Amendment __X__; Repeal ___; Repeal and Reenact ___		
Title No. - Rule No. - Section No.		
Utah Admin. Code Ref (R no.):	R307-110-17	Filing No. (Office Use Only)
Changed to Admin. Code Ref. (R no.):	R	

Agency Information

1. Department:	Environmental Quality	
Agency:	Air Quality	
Room no.:	Fourth Floor	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT 84116	
Mailing address:	PO Box 144820	
City, state, zip:	Salt Lake City, UT 84116-4820	
Contact person(s):		
Name:	Phone:	Email:
Liam Thrailkill	801-536-4419	lthrailkill@utah.gov
Please address questions regarding information on this notice to the agency.		

General Information

2. Rule or section catchline:
Section IX, Control Measure for Area and Point Sources, Part H, Emission Limits.
3. Purpose of the new rule or reason for the change (If this is a new rule, what is the purpose of the rule? If this is an amendment, repeal, or repeal and reenact, what is the reason for the filing?):
The rule amendment is to incorporate changes being made to Part H of the Utah State Implementation Plan (SIP). Since Kennecott's Power Plant has been shut down and the units subject to related provisions are no longer in operation, UDAQ is proposing to remove these provisions from Part H to ensure that these limits do not delay EPA approval of the PM _{2.5} Serious Area SIP and redesignation to attainment. A public hearing is set for Wednesday, November 4, 2020. Further details may be found below. The hearing will be cancelled should no request for one be made by Tuesday, November 3, 2020, at 10AM MT. The final status of the public hearing will be posted on Tuesday, November, after 10:00AM MT. The status of the public hearing may be checked at the following website location under the corresponding rule. https://deg.utah.gov/public-notices-archive/air-quality-rule-plan-changes-open-public-comment Interested Persons can participate electronically, via the internet: https://meetingsamer15.webex.com/meetingsamer15/j.php?MTID=m357b639a97d449b240dc3856771885 Meeting Number: 126 260 8137 Meeting password: g5cWszbBg36 (45297922 from phones and video systems) Join by Phone: 1-408-418-9288
4. Summary of the new rule or change:
The rule amendment will update the date of incorporation of Part H to include the most recent changes.

Fiscal Information

5. Aggregate anticipated cost or savings to:

A) State budget:

There are no anticipated costs or savings to the state budget as this amendment places no new requirements on the state or staff.

B) Local governments:

There are no anticipated costs or savings to local governments because this rule amendment is not applicable to them.

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

There are no anticipated costs or savings to small businesses as this rule amendment simply updates the incorporation by reference date for the Part H amendments which are not applicable to small businesses.

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

There is no anticipated costs or savings to non-small businesses as this rule amendment simply updates the incorporation by reference date for the Part H amendments which are not applicable 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**):

There are no anticipated costs to persons other than small businesses, non-small businesses, state, or local government entities as this amendment is not applicable to them.

F) Compliance costs for affected persons:

There are no new compliance costs as a result of this rule amendment.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	FY2021	FY2022	FY2023
State Government	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0
Total Fiscal Cost	\$0	\$0	\$0
Fiscal Benefits			
State Government	\$0	\$0	\$0
Local Governments	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0
Total Fiscal Benefits	\$0	\$0	\$0
Net Fiscal Benefits	\$0	\$0	\$0

H) Department head approval of regulatory impact analysis:

The head of the Department of Environmental Quality, L. Scott Baird, has reviewed and approved this fiscal analysis.

6. A) Comments by the department head on the fiscal impact this rule may have on businesses:

This rule amendment will have no fiscal impacts on businesses as the rule amendment itself is simply an update to the date of incorporation by reference and the amendments to the SIP are not applicable to businesses as a whole.

B) Name and title of department head commenting on the fiscal impacts:

L. Scott Baird, Executive Director of the Department of Environmental Quality

7. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws. State code or constitution citations (required):

19-2-104		

Incorporations by Reference Information

(If this rule incorporates more than two items by reference, please include additional tables.)

8. A) This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to the Office of Administrative Rules; *if none, leave blank*):

First Incorporation	
Official Title of Materials Incorporated (from title page)	Utah State Implementation Plan Emission Limits and Operating Practices. Section IX, Part H.
Publisher	Utah Division of Air Quality
Date Issued	
Issue, or version	December 2, 2020

B) This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to the Office of Administrative Rules; *if none, leave blank*):

Second Incorporation	
Official Title of Materials Incorporated (from title page)	
Publisher	
Date Issued	
Issue, or version	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until (mm/dd/yyyy):	11/04/2020	
B) A public hearing (optional) will be held:		
On (mm/dd/yyyy):	At (hh:mm AM/PM):	At (place):
11/04/2020	10:00AM	Held online. See Section 2 above for details

10. This rule change MAY become effective on (mm/dd/yyyy): 12/03/2020

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 10, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the *Utah State Bulletin*, and delaying the first possible effective date.

Agency head or designee, and title:	Bryce Bird	Date (mm/dd/yyyy):	08/18/2020
--	------------	---------------------------	------------

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 December 2[4], 2020[19], 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 Enactment or Last Substantive Amendment: December 5, 2019

Notice of Continuation: January 27, 2017

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

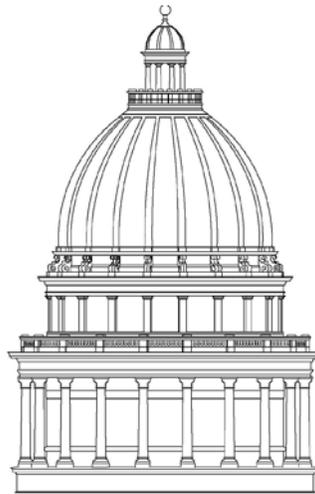
ITEM 8

A Performance Audit of
the Division of Air
Quality

August 2020

REPORT TO THE
UTAH LEGISLATURE

Number 2020-05



**A Performance Audit of
the Division of Air Quality**

August 2020

Office of the
LEGISLATIVE AUDITOR GENERAL
State of Utah



STATE OF UTAH

Office of the Legislative Auditor General

315 HOUSE BUILDING • PO BOX 145315 • SALT LAKE CITY, UT 84114-5315
(801) 538-1033 • FAX (801) 538-1063

Audit Subcommittee of the Legislative Management Committee

President J. Stuart Adams, Co-Chair • Speaker Brad R. Wilson, Co-Chair

Senator Karen Mayne • Senator Evan J. Vickers • Representative Brian S. King • Representative Francis D. Gibson

KADE R. MINCHEY, CIA, CFE
AUDITOR GENERAL

August 18, 2020

TO: THE UTAH STATE LEGISLATURE

Transmitted herewith is our report, **A Performance Audit of the Division of Air Quality** (Report #2020-05). An audit summary is found at the front of the report. The objectives and scope of the audit are explained in the Introduction.

We will be happy to meet with appropriate legislative committees, individual legislators, and other state officials to discuss any item contained in the report in order to facilitate the implementation of the recommendations.

Sincerely,

A handwritten signature in black ink that reads "Kade minchey".

Kade R. Minchey, CIA, CFE
Auditor General



PERFORMANCE AUDIT

▶ AUDIT REQUEST

We were asked to conduct an in-depth budget review of the Department of Environmental Quality (DEQ). The amount of operational and environmental issues identified within the Division of Air Quality (DAQ) necessitated an additional report.

▶ BACKGROUND

The mission of the Division of Air Quality (DAQ) is to safeguard Utah's air through balanced regulation. It is the responsibility of DAQ to ensure that the air quality in Utah meets health and visibility standards established under the federal Clean Air Act (CAA) by ensuring statewide compliance with the U.S. Environmental Protection Agency's (EPA) National Ambient Air Quality Standards (NAAQS).

The DAQ enacts rules pertaining to air quality standards, develops plans to meet the federal standards when necessary, administers emissions reductions incentive programs, issues permits to stationary sources, and ensures compliance with state and federal air quality rules.

Division of Air Quality



KEY FINDINGS

- ✓ The Division of Air Quality's decentralized database makes it difficult to verify inspection compliance.
- ✓ The Wood Stove and Fireplace Conversion Assistance program may not be as effective as intended.
- ✓ The Division of Air Quality can do more to address air quality in the Uintah Basin by increasing collaboration with other divisions.

DAQ Should Find Ways to Improve Data Management to Facilitate Analysis of its Effectiveness.

We found that we were limited in our ability to determine the success of the compliance branch (within the Division of Air Quality) and thereby the full success of the state's air quality program because the division does not store their inspection and compliance information in a central relational database.



RECOMMENDATIONS

- ✓ DAQ should find ways to improve data management to facilitate analysis of its effectiveness
- ✓ DAQ should develop more accurate measures to assess the effectiveness of the Wood Stove and Fireplace Appliance Conversion Assistance Program
- ✓ DAQ should conduct a cost-benefit analysis to determine if the measured reductions in woodsmoke are worth the cost of the program
- ✓ DAQ should explore ways it can efficiently use DOGM inspections to increase its effectiveness in the oil and gas sector



REPORT SUMMARY

Ineffective Communication Between Division’s Branches Has Affected Past Compliance Efficiency

We found data errors that negatively affected the compliance branch’s ability to complete its work efficiently. The compliance branch reported past difficulties in obtaining information about changes to a source’s status from the other branches. DAQ’s branches should improve communications with their other branches to reduce errors in the future.

The Woodburning Appliance Conversion Program Lacks Adequate Performance Tracking

We found that the Division of Air Quality did not specifically target households that burn wood regularly.

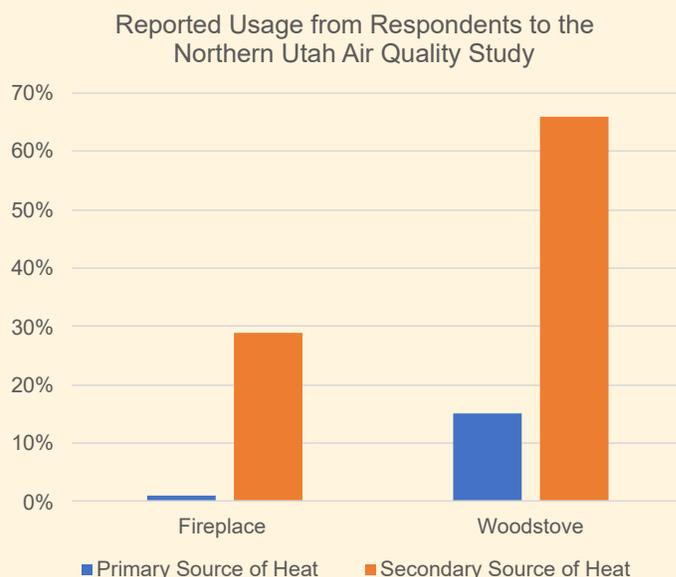
Many Conversion Grants May Not Be Contributing to Any Reduction in Woodsmoke

DAQ cannot say for sure that participants in the program used their wood burning device before the conversion. DAQ did not attempt to collect information about the wood-burning habits of program participants. A northern Utah air quality study found that more woodstove owners used their appliances as a primary source of heat when compared to fireplace owners. To potentially improve the success of the program, DAQ should consider a targeted effort to attract woodstove users.

The purpose of the program is to target households with woodburning appliances, with greater emphasis placed on low-income households and houses that burn wood as a source of heat. We also found that research conducted by DAQ shows that woodburning had already reduced significantly prior to the implementation of the program.

The Division of Air Quality Needs to Improve the Number of Air Quality Inspections By Coordinating with Other State Divisions

We found that DAQ has had challenges inspecting all 3,600 wells in the Uintah Basin in a timely manner. DAQ should explore ways it can efficiently work with other divisions to increase its inspections effectiveness in the oil and gas sector.



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REPORT TO THE UTAH LEGISLATURE

Report No. 2020-05

A Performance Audit of the Division of Air Quality

August 2020

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Table of Contents

Chapter I

Introduction.....	1
Division of Air Quality Is Tasked with Safeguarding Utah’s Air	1
Scope and Objectives.....	5

Chapter II

Centralized Database Needed to Determine Success of Air Quality Compliance Program.....	7
DAQ Is Responsible for Safeguarding Utah’s Air Through Regulation and Planning.....	7
Lack of Centralized Relational Database Causes Analytical Challenges and Inefficiencies	9
Most Inspections Are Timely, But Compliance Consistency Was Difficult to Ascertain	13
Recommendations.....	16

Chapter III

DAQ Can Improve Its Oversight of Some New Air Quality Funds	17
DAQ Has Received Additional Funding To Address Air Quality Concerns.....	17
Woodburning Appliance Conversion Program May Need Adjustments to Achieve Its Intended Purpose	19
Recommendations.....	24

Chapter IV

DAQ Should Take Advantage of Shared Jurisdiction in the Oil and Gas Sector.....	27
DAQ Can Do More to Address Air Quality Needs Related to Oil and Gas Production.....	27
Recommendations.....	33

Agency Response	35
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Chapter I

Introduction

As part of an in-depth budget review of the Department of Environmental Quality (DEQ or department),¹ our audit team conducted a department-wide risk assessment. The amount of operational and environmental issues identified within the Division of Air Quality (DAQ or division), necessitated the release of an additional report. The remainder of this chapter will discuss DAQ's history and mission and the division's responsibility to provide industry regulation over air quality. The audit scope and objectives are at the end of the chapter.

Division of Air Quality Is Tasked with Safeguarding Utah's Air

The mission of the Division of Air Quality is to safeguard and improve Utah's air through balanced regulation. It is the responsibility of DAQ to ensure that the air quality in Utah meets health and visibility standards established under the federal Clean Air Act (CAA) by ensuring statewide compliance with the U.S. Environmental Protection Agency's (EPA) National Ambient Air Quality Standards (NAAQS). DAQ enacts rules pertaining to air quality standards, develops plans to meet the federal standards when necessary, administers emissions reduction incentive programs, issues permits to stationary sources, and ensures compliance with state and federal air quality rules.

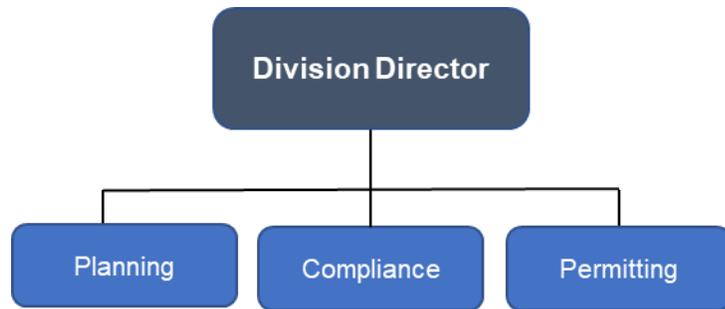
DAQ Has Three Main Branches

DAQ is divided into three branches: planning, permitting, and compliance. An Air Quality Board is appointed by the Governor and serves as the primary air quality policy maker for the state. Figure I.1 provides an organizational view of the division.

¹ An In-Depth Budget Review of the Department of Environment Quality Report #2020-04 was released August 2020.

DAQ enacts rules and develops plans to meet federal standards to maintain air quality

Figure 1.1 DAQ Division Has Three Main Branches. The three branches are responsible for maintaining air quality standards in Utah.



Source: Auditor Generated

The planning branch is divided into four sections.

- The inventory section maintains the statewide inventory of all sources of air emissions, including point sources, area sources, on-road sources, and non-road sources.
- The monitoring section monitors air quality in all areas of the state that either have at least 50,000 people or are a non-attainment area for at least one criteria pollutant.
- The policy section is responsible for the State Implementation Plan (SIP) and air quality initiatives and incentives.
- The technical analysis section deals with non-permit related modeling and research.

The Permitting Branch conducts new source reviews (NSRs) of major and minor sources and issues approval orders (AO) and Title V permits. Title V sources are typically large sources of emissions that must follow additional federal requirements found in Title V of the Clean Air Act.

The Compliance Branch conducts inspections based on both the contents of AOs/Title V permits and the corresponding state and federal rules. Title V sources must be inspected at least once every two years. DAQ strives to inspect all other non-exempt sources every five years. The ATLAS section of the compliance branch is responsible for regulating asbestos and lead based paint renovation and demolition projects.

The Compliance Branch conducts inspections based on permits issued by the Permitting Branch

DAQ Revenues Come From Various Sources

Federal funds and general funds are the largest funding sources for the division. Figure 1.2 shows total revenues from the various sources as well as the percentage of the total revenue.

Figure 1.2 Federal Fund and General Fund Appropriations Provide the Majority of DAQ’s Budget. DAQ did not spend nearly 20 percent of its funding in fiscal year 2019.

Funding Sources	2019 Funding	Percentage of DEQ Funding
Federal Funds	10,919,700	38%
General Fund One-Time	5,969,500	21
General Fund	6,069,500	21
Clean Fuel Conversion Fund	118,100	0
Dedicated Credits	6,175,100	22
Transfer	-1,054,600	-4
Beginning Non-Lapsing	315,000	1
Sub Total	\$28,512,300	100%
Closing Non-Lapsing	-5,490,500	-19
Lapsing	-92,300	0
Total	\$22,929,500	80%*

Source: Auditor summary of Legislative Fiscal Analyst COBI data.
*Figure does not add due to rounding.

DAQ expended about 80 percent of available funding in fiscal year 2019. Most of the unexpended money was pass through for air quality initiatives and incentive programs and carried forward to the next fiscal year. Revenues from the general fund comprise about 42 percent of total funding. Dedicated credits, which are comprised of fees, make up 22 percent of total revenue. It should be noted that fines levied and collected by the division go back to the general fund. Figure 1.3 shows the division’s expenditures for fiscal years 2015 through 2019.

Most of the unexpended money was pass through funding for air quality incentives and initiatives.

Figure 1.3 DAQ’s Expenditures Have Increased Over the Past Five Fiscal Years (2015-2019). The division’s expenditures have increased by 46 percent.

Fiscal Year	DAQ Total Expenditures
2015	\$15,703,400
2016	14,224,000
2017	15,806,400
2018	17,458,100
2019	22,929,500
Percent Change	46%

Source: COBI

Much of DAQ’s 46 percent increase in expenditures was pass through expenditures, or money spent outside the division’s operational budget, such as air quality incentive programs. Figure 1.4 shows that the pass through increased from \$835,300 in fiscal year 2015 to \$8,150,000 in fiscal year 2019, an increase of almost 900 percent.

Figure 1.4 Personnel Services and Pass Through Make Up the Majority of DAQ’s Expenditures. Federal funds comprise 48 percent of the division’s budget.

Expenditure Categories	2019 Expenditures	Percentage of DAQ Expenditures
Personnel Services	11,083,100	48%
In-State Travel	71,200	0%
Out-of-State Travel	52,100	0%
Current Expense	1,991,800	9%
DP Current Expense	1,031,200	4%
DP Capital Outlay	84,600	0%
Capital Outlay	465,500	2%
Other/Pass Through	8,150,000	36%
Cost Accounts	0	0%
Total	\$22,929,500	100%

Source: COBI

Scope and Objectives

This audit is part of the in-depth budget review of the Utah Department of Environmental Quality. With the significant increase in DAQ's budget and the amount of operational and environmental issues identified in DAQ during our risk assessment, the release of this separate report was needed.

Specifically, we address the following audit objectives:

- Chapter II evaluates the Division of Air Quality's (DAQ) compliance program
- Chapter III focuses on new funding and the performance of the Woodstove and Fireplace Conversion Assistance Program
- Chapter IV examines DAQ's inspections program in the Uinta Basin

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Chapter II

Centralized Database Needed to Determine Success of Air Quality Compliance Program

The Division of Air Quality (DAQ) can improve how it manages its compliance data. Without a quality database, we were limited in our ability to determine the division's success and thereby the full success of the state's air quality program. DAQ does not have a centralized, relational database to create reports that indicate whether compliance goals are being achieved. Using the limited data available, we conducted tests to determine if DAQ was meeting its regulatory responsibilities. It appears that DAQ is meeting most compliance goals and all compliance requirements. We recommend that DAQ find ways to improve its data management to facilitate a full review of the success of the state's air quality regulatory programs.

DAQ Is Responsible for Safeguarding Utah's Air Through Regulation and Planning

The EPA granted DAQ primacy to enforce the Federal Clean Air Act (CAA). Our audit focused on DAQ's regulatory authority as granted by the CAA. Regulatory authority is exercised through permit issuance, inspections, compliance, and enforcement. We focused heavily on inspections, compliance, and enforcement because we identified risk with inspections in other DEQ divisions.

DAQ Issues Two Types of Permits To Help Safeguard Utah's Air

One way DAQ fulfils its responsibility to safeguard Utah's air is to issue permits to significant sources of air emissions. Approval Orders (AOs) are issued to most sources that produce over five tons of emissions per year. AOs are issued based on predicted emissions and the source's location and require the permittee to utilize best available control technology (BACT) to limit emissions. BACT takes into account the technical feasibility of implementing the control and the

DAQ issues two types of permits to significant sources of air emissions.

Title V permits are typically supplemental permits that add additional requirements to requirements found in an Approval Order (AO) permit.

cost of the environmental benefit. In nonattainment areas,² sources must meet the even stricter lowest achievable emissions rate (LAER) standard, which only considers technical feasibility and environmental benefit. Sources in nonattainment areas may be required to obtain offsets (banked emissions from sources that have either shut down or permanently reduced emissions) in order to be issued an AO.

Title V permits are typically supplemental permits to an AO that add additional requirements for major sources of pollution, including monitoring, record keeping, and reporting. Sources with Title V permits must pay an annual fee based on tons of emissions. Title V area sources are sources that do not have Title V permits but are still required to pay the fee.

DAQ Conducts Inspections to Ensure Air Quality Standards Are Being Followed

In addition to permitting facilities, DAQ also conducts inspections of many sources of air emissions to regulate Utah's air quality. This chapter focuses on permitted sources, which fall into one of two main categories.

Major (Title V) - Sources are considered major sources if they emit over 100 tons of any air pollutants, 10 tons of any single hazardous air pollutant, or 25 tons of a combination of hazardous and non-hazardous air pollutants per year. Some major sources emit below this threshold but are categorically required to obtain a Title V permit and are therefore considered a major source. In nonattainment areas such as areas along the Wasatch Front, the threshold is lowered to 70 tons of air pollutants. Fugitive dust and fugitive emissions (emissions that cannot be easily captured or controlled) are not included in this calculation, except for industries listed in *Utah Administrative Code* R307-101. Most major sources have both an AO and a Title V permit. EPA policy requires that Title V permitted sources be inspected at least every other year.

Minor - Sources are considered minor sources if they produce over five tons of emissions, but not enough to qualify as a major source. All

² Areas that exceed National Ambient Air Quality Standards (NAAQS) are classified as nonattainment areas by the EPA and must establish additional requirements to regain attainment status.

DAQ conducts regular inspections of permitted sites.

minor sources must obtain an AO. There is no federal inspections requirement, but DAQ strives to inspect these sources at least every five years. Some minor sources are inspected more frequently, based on compliance history or when the potential to emit approaches major source levels. Title V area sources fall into the minor source inspections category.

DAQ also inspects nonpermitted sources, including low-producing oil and gas wells, drycleaners, construction sites, winter wood burning, open burning, and some consumer products. These entities are also inspected by the minor source group. In addition, there is a compliance group that focuses on lead, asbestos, and other air toxins not associated with traditionally permitted sites.

The DAQ Compliance Branch also inspects sources of air emissions that are not required to obtain an AO or Title V permit.

Lack of Centralized Relational Database Causes Analytical Challenges and Inefficiencies

The Division of Air Quality does not have a centralized, relational database³. As a result, we were limited in our ability to determine the success of the division and thereby the full success of the state's air quality program. For example, without a database of relational information, key measures of success could not be calculated to determine program success. In addition, some key analysis could not be completed, such as time to compliance. Furthermore, frequent permit changes or changes in source classification make it difficult to track and analyze without a centralized, relational database. In addition, without central data management, we found that occasional miscommunication between DAQ branches has led to inefficiencies in inspections and enforcement, including a handful of missed inspections and initiating enforcement actions based on permits that were no longer active.

³ A relational database is a type of database that stores and provides access to data points that are related to one another. Relational databases are based on the relational model, an intuitive, straightforward way of representing data in tables. In a relational database, each row in the table is a record with a unique ID called the key. The columns of the table hold attributes of the data, and each record usually has a value for each attribute, making it easy to establish the relationships among data points.

Key Measures of Effectiveness Could Not Be Calculated

Information is not in a format that allows for a thorough examination to determine if DAQ is meeting compliance objectives to ensure air quality standards are being maintained, thereby hampering our ability to determine the full success of the air quality program. To be clear, we do not believe that DAQ is substantially deficient in its duties. The information we were able to obtain generally showed compliance in required inspection frequency. However, much of the information is recorded in narrative rather than in data fields. We noted incomplete information, such as missing dates or unique identifiers. Some inspections information for non-permitted sources (such as drycleaners and oil and gas sites that do not have AOs) was stored in the minor source inspections spreadsheet. DAQ does not track enough information in a usable format to calculate the percentage of enforcement actions completed in a timely manner or the average time from the violation date to the issuance of an enforcement action and the date of closure.

In the compliance spreadsheet, inspectors document the date of the inspection, the date the response is due or received, the settlement mail date (if applicable) and the settlement response or received date. Because two of these data points have two possible dates that could be recorded that may not be the same date, there is too much ambiguity to determine if responses are received by DAQ in a timely manner. We recommend that DAQ consistently record key dates in the compliance process to allow it to calculate important performance measures.

Status Changes Are Difficult to Track Without a Queryable, Relational Database

Another difficulty in measuring the performance of DAQ is that changes to permits, classification, technology, and operations make it challenging to ensure that information is up to date. Changes also make it difficult to independently verify that the compliance branch is meeting its requirements and goals. A relational database could address many of these challenges by automatically updating source classification and alerting DAQ when permits are issued, altered, or revoked.

**Some data was
ambiguous, making
analysis challenging.**

Minor Sources Are Quite Common. Some new minor sources were formerly Title V sources that have reduced their emissions below the Title V threshold. Minor sources also shut down periodically or pause operations. Without a database, it is difficult for an independent reviewer to determine if an inspection was missed or if it was unnecessary because the source ceased operations.

When Attainment Statuses Change, the Major Source Threshold Is Reduced. In areas across the Wasatch Front that are in nonattainment for several air pollutants, the threshold to be considered a major source has been reduced to 70 tons of emissions per year. When attainment status changes, minor sources can become major sources and vice versa. The agency reports that another area of the state will likely go into nonattainment in the near future. This will likely lead to change in the emissions threshold. Some minor sources that once needed to be inspected every five years may now change status to major and require more frequent inspections.

Changes in BACT Reduce a Source's Potential to Emit. When new control technology is introduced, the rest of the industry is required to adapt. Sources utilize numerous devices to capture, clean, or control emissions. New technology often allows sources to reduce their potential to emit pollutants. If the potential to emit is reduced enough, major sources can become minor sources, requiring less frequent inspections.

Major Modifications Require the Issuance of a New Approval Order (AO). Any source with an AO must obtain a new AO if major operational changes occur, that lead to a significant increase in net emissions. Changes that could trigger the need for a new AO include adding a generator, installing a new engine, or changing control technology. It is important that the compliance branch is aware of new AOs, as they may alter inspection requirements.

The Status of Oil and Gas Has Changed. In 2014, the division began regulating oil and gas sites, eventually adding 2,526 new sources to the minor source inspection sheet. A few years later, a rule change allowed some lower-producing wells to cancel their AOs after one year of operations and simply register as a permit-by-rule (PBR) source. New oil and gas sites must still obtain an AO for at least one year to determine production levels. PBR registration is stored in a separate database, administered by the DAQ planning branch. An

Several factors can affect a source's classification and corresponding inspection requirements.

independent reviewer cannot easily determine if oil and gas sites with current AOs but no inspection within the past five years are new or if the AO is outdated and should have been removed from the inspections list.

Ineffective Communication Between Branches Has Affected Past Compliance Efficiency

We found data errors that negatively affected the compliance branch's ability to complete its work efficiently. The compliance branch reported past difficulties in obtaining information about changes to a source's status from the other branches. Four minor source inspections were missed because the compliance branch did not have the source's AO. Status changes to oil and gas sites were particularly problematic for the branch. For example, one inspector reported attempting to penalize an entity for operating without a permit only to be shown a permit issued by DAQ that he was unaware of.

When reviewing a sample of 20 compliance actions that occurred at oil and gas sites, we found 2 instances of an inspector conducting an inspection based on an old AO that should have been revoked when the site registered as PBR. The PBR registry is administered by the planning branch while AOs are issued and maintained by the permitting branch, so these instances illustrate a lack of communication among the three branches. AOs must be revoked by the director and cannot be automatically revoked once a site has registered as PBR. However, the compliance branch reports recent efforts to manually identify PBR-registered sources that still have an active AO to ensure that inspectors have up-to-date information. We recommend that the division continue to proactively identify outdated AOs to ensure that the compliance branch is conducting inspections based on current information.

In the same sample of 20 enforcement actions, we found 2 instances in which an oil and gas entity had applied for, but had yet to be issued an AO. Per DAQ best practices, inspectors should conduct a file search to see if an application for an AO is pending. When possible, inspectors should delay conducting an inspection until after the AO is issued so that the inspection can be conducted based on the contents of the applicable permit. A centralized database could eliminate the need to conduct a file search, because ideally, inspection assignments would not be issued for sites with pending AOs.

Some inspections were based on outdated information.

We also found one instance in which an inspection was conducted before the operator submitted an application for an AO. A “no further action” letter was sent to the operator, contingent upon the submission of an application for an AO by an established deadline. According to the permitting branch, an application was never submitted⁴. However, the compliance branch was unaware of the operator’s failure to submit an application until recently. Better communication between the two branches could have identified this violation.

Errors like these could be avoided with a centralized database. Given that minor source inspectors are already stretched thin, avoiding even small errors can help them be more efficient. The compliance branch has reported that it has increased its communication with the planning and permitting branches to reduce these errors in the future.

Most Inspections Are Timely, But Compliance Consistency Was Difficult to Ascertain

Incomplete inspection data prevented us from fully verifying that DAQ has been meeting its objectives. This situation hampered our ability to effectively determine the success of Utah's air quality program. However, the information we do have shows that DAQ is largely meeting its compliance responsibilities. For example, we were able to verify that all major source inspections were conducted within EPA’s time requirements. In addition, of roughly 1,600 minor sources, inspectors completed close to 99 percent of inspections. Over the past 5 fiscal years, inspections led to 261 observed violations. However, consistency in enforcement actions could not be verified because of the way information has been recorded. Better, more accessible data would allow us to easily and more completely ensure that DAQ is meeting inspection and enforcement objectives.

A violation would have been identified through better communication between the compliance and permitting branches.

⁴ The site has since registered as permit-by-rule.

All major source inspections occurred at least once every two years.

Out of 1600 minor sources, inspections were not conducted within the established timeframe at 4 facilities.

The Majority of Major and Minor Source Inspections Are Completed in a Timely Manner

Major sources must be inspected every two years. However, DAQ strives to inspect each Title V source once a year. The state has 76 current Title V point sources. Since 2015, there has been 97 Title V sources (indicating that some have opened, closed, or changed status between 2015 and now). Of the 97 Title V permits, only one inspection was missed, based on DAQ’s own annual standard. The inspection was missed in 2018 but conducted in 2019. There is no indication that the site was non-operational in 2018. The site did not experience any enforcement actions between 2014 and 2019.

There are approximately 1,600 permitted minor sources in the state. Permitted minor sources should be inspected at least every five years. Unlike major sources, there is no inspection frequency requirement. Instead, five years is an internal goal. Aside from sources that have opened in the past 5 years, 22 permitted minor sources were not inspected in the past 5 years. Of the 22 missed inspections, 4 inspections were missed because the compliance branch did not have a copy of the source’s AO. The other 17 missed inspections were oil and gas sites. It is possible that these sites previously registered as PBR but were not removed from the minor source inspections spreadsheet. It is also possible that these sites were less than one year old. We recommend that the compliance branch ensure that all minor sources are inspected at least once every five years and review its list of active minor sources.

Ongoing Quantitative Analysis Needed to Verify Consistency of Enforcement Actions

DAQ issued 261 enforcement actions between 2014 and 2019. Of the 261 actions, 162 fines were issued. Major/Title V sources have been fined 22 times. The other 140 fines were issued to minor/PBR sources. Figure 2.1 shows the inspections from 2015 to 2019.

Figure 2.1 DAQ Inspections in the Past 5 Fiscal Years. There were 261 enforcement actions that resulted in 162 fines.

Observed Violations	Fines Assessed	Title V Sources Fined	Minor/Other Sources Fined
261	162	22	140

Source: DAQ

DAQ collected over \$3 million in fines during this period. These fines are deposited in the General Fund.

We Were Unable to Fully Verify that Compliance Actions Were Consistent, Especially for Enforcement Actions that Did Not Result in a Fine. All actions were entered in a spreadsheet. The nature of the noncompliance was recorded as a narrative that was incomplete or unclear at times. The compliance data did not include a citation of the rule or AO requirement that was violated, making comparison for consistency impossible.

To assess enforcement action consistency, we sampled 20 instances of noncompliance in the oil and gas sector. We reviewed the cases in detail; outcomes appeared consistent. The manager of the compliance branch also reviews the work of DAQ inspectors to ensure that enforcement actions are consistent. An internal audit of DAQ inspections reported that inspectors communicate frequently to ensure consistency. We were unable to verify consistency outside of the sample. We recommend that DAQ record the specific rule or law (when applicable) associated with each enforcement action to facilitate future consistency analysis.

Fines Assessed for Qualifying Violations Appear to Be Consistent. To maintain consistency in assessing penalties, DAQ utilizes an automated penalty worksheet. When filling out the worksheet, inspectors document the specific rule violation(s). The penalty worksheet assesses a daily penalty based on the severity of the noncompliance and its impact. DAQ can also use the automated penalty worksheet to adjust penalties based on aggravating or mitigating factors. The worksheet considers cause, severity of the effect of the noncompliance, willfulness, and efforts made by the source to come into compliance as quickly as possible. The factors are used to fine tune the calculated daily penalty.

DAQ can also increase the penalty if the violation gave the source an economic benefit. There is a model to calculate this impact as well. DAQ can reduce the fine by 20 percent if the source agrees to accept the penalty. This provides an incentive for sources to settle and may reduce the time it takes to close out compliance actions.

We believe that penalties are likely being calculated consistently. However, we could not totally verify that consistent actions occurred when a penalty was not involved. We recommend that DAQ record all

Compliance outcomes appear consistent, though verification was not feasible.

DAQ strives to maintain consistency in the issuance of penalties through the use of an automated penalty worksheet.

violations and agency actions in a standardized way that can be more easily analyzed and compared.

Recommendations

1. We recommend that the Division of Air Quality find ways to improve data management to facilitate analysis of its effectiveness.
2. We recommend that the Division of Air Quality's compliance branch continue to collaborate with the permitting and planning branches to improve data and facilitate complete documentation of each site's permitting, inspection, and compliance history.
3. We recommend that the Division of Air Quality compliance branch periodically review its list of active major and minor sources to identify status changes.

Chapter III

DAQ Can Improve Its Oversight of Some New Air Quality Funds

Of the divisions in the Department of Environmental Quality (DEQ), the Division of Air Quality (DAQ) has seen the largest funding increase over the past five fiscal years. A limited review of new money indicates that most of the funding is appropriate. However, we have concerns about the administration of a \$9 million appropriation to fund the Woodstove and Fireplace Appliance Conversion Assistance Program. The program may not be as effective as it could be because DAQ did not specifically target households that regularly burned wood and thus contributed to poor air quality.

DAQ Has Received Additional Funding To Address Air Quality Concerns

DAQ funding has increased from \$15.7 million in fiscal year 2015 to \$28.8 million in fiscal year 2020. Much of the increase is pass-through funding and does not impact DAQ's operational budget. While some of the new money funds DAQ's regulatory responsibilities, most new appropriations fund research and initiatives or incentives aimed at improving Utah's air quality.

Increased Funding Has Been Necessary To Fulfill DAQ's Regulatory Responsibilities

Between fiscal year 2015 and fiscal year 2019, DAQ received just under \$480,000 in ongoing appropriations and a one-time appropriation of \$43,600 to fund new compliance inspectors. The division also received \$135,000 in ongoing funding for Attorney General support to provide legal assistance. In addition, DAQ received just under \$2.6 million in one-time funding and over \$350,000 in ongoing funding for air monitoring. The Department of Environmental Quality (DEQ) was also appropriated \$6 million to fund the construction of a technical support center, which is heavily used to support DAQ's air monitoring program. Finally, DAQ received \$113,000 in ongoing funding to develop a new state implementation plan (SIP).

New funding paid for new compliance inspectors, Attorney General services, and additional air monitoring.

Additional Money Was Necessary to Fund Permitting and Compliance Activities. DAQ funds its Title V program⁵ through Title V fees. Title V imposes an annual fee per ton of emissions. Only Title V facilities are required to pay this fee.⁶ As control technology continues to advance, industry is getting cleaner. Many former Title V sources have reduced emissions enough to become minor sources, which do not pay fees per ton of emissions. As a result, DAQ receives less money to fund its program. The fee increased in fiscal year 2020.

In December 2014, Utah began to regulate oil and gas as a result of the discovery of high levels of ozone pollution during the winter in the Uinta Basin. This change has added about 2,500 inspection sources. To effectively regulate the industry, DAQ had to hire additional inspectors.

An Increase in Population and New Federal Law Triggered Additional Monitoring Requirements. The EPA requires air monitoring for all areas with over 50,000 people, or any area that is in nonattainment for any criteria pollutant⁷. Since 2015, the state has started monitoring two new areas: Iron County and a near-road monitoring station along I-15 in Salt Lake County. The near-road monitoring station is part of a new Federal requirement. DAQ will likely be required to build a second near-road monitoring station in the future. In addition, the Legislature has authorized an air monitoring site to assess the potential impact of a proposed inland port authority.

A State Implementation Plan (SIP) Must Address Every Nonattainment Area in the State. Nonattainment areas can have multiple implementation plans, addressing each criteria pollutant that is over the EPA established limits. SIPs are plans for areas to achieve and maintain attainment. SIPs are quite complex and involve additional modeling and stricter requirements for both permitted and nonpermitted emissions sources.

Air monitoring is required for all areas with more than 50,000 people and areas that are in nonattainment for one or more criteria pollutants.

⁵ The Title V program is a permitting program for large producers of emissions

⁶ Both Title V point sources and Title V area sources must pay emissions fees. Title V area sources are major sources that are not required to obtain a Title V permit because their emissions cannot be easily monitored.

⁷ The EPA sets National Ambient Air Quality Standards (NAAQS) for 6 common air pollutants, known as criteria pollutants: ozone, particulate matter (PM2.5 and PM10), Carbon Monoxide, Lead, Sulfur Dioxide, and Nitrogen Dioxide.

Legislature Appropriated Additional Money to Fund DAQ Research-Based Programs to Improve Air Quality

DAQ has received a lot of state money to fund research and both state and federal money to fund initiatives to improve Utah's air. DAQ received \$870,000 in one-time funding and over \$718,000 in ongoing funding over the past five years to conduct air quality research. During the same period, DAQ was appropriated over \$16 million in one-time funding for specified initiatives and incentive programs.

DAQ Conducts Research to Guide Policy Decisions. DAQ has leveraged appropriated research money by partnering with other entities such as the Utah Transit Authority, Utah State University, Brigham Young University, and the University of Utah. Research topics include the composition of volatile organic compounds (VOCs) emissions from oil and gas wells, development of a new meteorological model for the ozone SIP, and analysis of changes in woodburning habits. Much of this research directly contributes to both DAQ's regulatory responsibilities and its efforts to improve Utah's air.

DAQ Has Several Programs Aimed at Reducing Air Pollution. Air quality initiatives and incentives include outreach, highway messaging campaigns, vehicle charging stations, diesel engine conversion grants, yard equipment exchanges, and woodburning appliance conversion grants. Some of these incentive programs are partially federally funded or funded by non-state money. One of the most visible incentive programs is the 2019 House Bill (H.B.) 357, passed to set up a woodburning appliance conversion program, which is entirely state funded. The final section of this chapter discusses concerns with this program that need to be addressed.

Woodburning Appliance Conversion Program May Need Adjustments to Achieve Its Intended Purpose

The Woodstove and Fireplace Conversion Assistance program may not be as effective as is possible because DAQ has not specifically targeted households that regularly burned wood and contributed to poor air quality. The woodstove and fireplace appliance conversion

DAQ partners with other entities to maximize its research impact.

New appropriations funded several air quality initiatives and incentive programs.

The goal of the woodburning appliance replacement program is to reduce sources of PM2.5 and PM10 in areas of nonattainment.

assistance program provides grants to homeowners to upgrade woodburning appliances to gas appliances. The program was appropriated \$9 million in funding for fiscal year 2020. We are concerned that DAQ cannot confirm that all grants contributed to a reduction in woodsmoke. The estimated reduction in emissions accounts for very little of the total woodsmoke in the state.

The goal of the program is to reduce the amount of particulate matter released into the air from residential woodburning during the winter, when PM2.5 and PM10 are at their highest levels. Rental properties and commercial woodburning activities are not eligible to participate in this program. Additionally, the program is meant to target low-income households and households that use woodburning devices as the sole source of heat. We found that DAQ did not specifically target households that burn wood as a sole source of heat. This omission could detract from the achievement of the program's purpose and limit the program's success.

Woodburning Appliance Conversion Program Is Funded by State Money

The Legislature appropriated \$5 million in 2019's HB357 and an additional \$4 million in supplemental funds to provide grants to convert woodburning stoves and fireplaces to gas or electric appliances.⁸ The program has since been placed on hold and the Legislature lapsed and then restored \$5.25 million of the appropriation. Language in the bill emphasized that this program should target low-income households and households that burn wood as ". . .the sole or supplemental source of heating." While DAQ made efforts to target the program to low-income individuals, it did not specifically target households that burn wood as a sole or supplemental source of heat.

DAQ attempted to target low-income households by increasing the funds available to those with an adjusted gross income under 250 percent of the federal poverty level. Figure 3.1 shows the grant amounts available to low-income households and other households.

⁸ There is a similar EPA-funded conversion program, but the agency reports that it is less popular.

Figure 3.1 Grant Amounts for Homes Located in PM2.5/PM10 Nonattainment Areas. DAQ offered low-income households larger grants to convert woodburning devices to gas or electric.

Type of Conversion	Low Income	Other
Woodburning to Gas	\$4000	\$2800
Woodburning to Electric	\$2000	\$1,000

Source: DAQ

In most cases, even the higher amount did not cover the full cost of the conversion. The average project cost for low-income recipients converting a woodburning device to gas was \$4,435. Still, the program appears to be popular.

Preliminary data shows that only about 15 percent of participants fell into the low-income category. However, the agency caught several applicants attempting to qualify as low-income through the use of non-qualifying tax returns. It is possible that even more applicants were successful in fraudulently receiving the larger grant. For privacy reasons, DAQ deletes submitted tax returns after approval or denial so we were unable investigate this issue further.

As of March 2020, 545 people had applied to the program. Of that number, 486 (89 percent) were approved and 214 projects were completed.

Many Conversion Grants May Not Be Contributing to Any Reduction in Woodsmoke

DAQ cannot say for sure that participants in the program used their woodburning device before the conversion. DAQ did not attempt to collect information about the woodburning habits of program participants. Therefore, it is not known if the program was being utilized by those who frequently burn wood. According to the Northern Utah Air Quality Survey⁹, not every home with a woodburning appliance used the appliance in the past 12 months. The

⁹ The Utah Department of Environmental Quality (DEQ) contracted with ICF International (ICF), an independent research and consulting firm, to conduct a survey of residents in seven northern Utah counties regarding their opinions surrounding air quality and their home heating and woodburning behaviors. It can be accessed at <https://deq.utah.gov/air-quality/northern-utah-wood-burning-survey>

Early program data revealed that only 15 percent of program participants qualified as low-income.

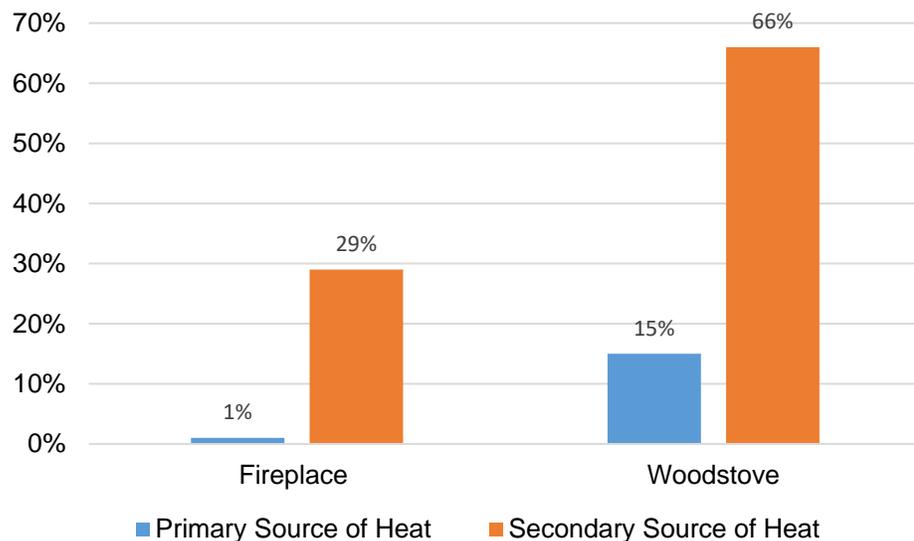
DAQ conducted a survey in 2015 to better understand residential woodburning habits in nonattainment areas.

Only 42 percent of survey respondents reported utilizing their woodburning device in the past 12 months.

survey found that only 42 percent of respondents with woodburning appliances reported burning wood in the last 12 months. That means that it is possible that many grant participants receiving grants of up to \$4,000 were not previously contributing to the total emissions from woodsmoke in the first place.

In addition, most program participants (85 percent) converted woodburning fireplaces to gas or electric fireplaces. The woodburning habits of fireplace owners compared to woodstove owners are significantly different. Figure 3.2 illustrates this difference.

Figure 3.2 Usage by Appliance from the Northern Utah Air Quality Study. More woodstove owners used their appliances as a primary source of heat when compared to fireplace owners.



Source: Northern Utah Air Quality Study

Figure 3.2 shows those with woodstoves used their devices as a source of either primary or secondary heat 81 percent of the time. To potentially improve the success of the program, DAQ should consider a targeted effort to attract woodstove users.

No Registered Sole-Source Woodburning Household Has Participated in the Program. DAQ encourages households that burn wood as a sole source of heat to register with the state. A total of 64 sole source homes in the eligible area are registered with DAQ. Sole-source wood-burners are exempt from mandatory action days, meaning that they can burn wood even when air quality is poor. No household that was approved to participate in the woodburning

appliance conversion program appears on the sole-source list¹⁰. DAQ would likely see the greatest reduction per conversion grant if the program targeted sole-source owners.

The Survey Did Not Collect Demographics. There may be a difference in the woodburning habits of different socio-economic groups. Wood is often a more affordable way to heat a home and is therefore more likely to be used by low-income households as a source of heat. Targeting low-income households for woodburning device replacement could in theory have a greater impact on woodsmoke reduction. However, this hypothesis cannot be proven because the consultant who conducted the survey did not collect demographic information.

Data obtained from DAQ indicated that only 15 percent of participants with active vouchers were low-income. DAQ should explore more ways to target low-income individuals for program participation.

DAQ's Own Research Shows a Large Reduction in Woodsmoke Prior to the Implementation of this Program. DAQ conducted research to assess reductions in woodsmoke over time. This research shows that woodsmoke from residential woodburning reduced significantly as a percentage of total woodsmoke. Specifically, residential woodsmoke decreased by 79 percent and 93 percent (depending on the city) between 2007 and 2017. This research seems to indicate that less expensive efforts (such as communications, partial bans, and federally funded conversion programs) to reduce woodsmoke have been successful. The funding provided by the Legislature has the potential to start targeting other ways of reducing woodsmoke, including non-residential woodsmoke. DAQ should reevaluate how it is administering this program to determine if making changes to the program could maximize its impact, or if the program should be altered or discontinued.

DAQ continues to pursue other methods to reduce residential woodsmoke from woodburning devices, including mandatory action days on days when air quality is poor and public outreach campaigns

Survey information was not used to differentiate between the woodburning habits of different socio-economic groups.

Some prior DAQ efforts have been successful in reducing residential woodburning.

¹⁰ A 2014 DAQ program provided conversions for some sole source homes.

The cost to remove one ton of emissions from woodburning is \$14,435.

that address the impact of woodburning on air quality. This research seems to conclude that these efforts have been successful.

Residential Woodsmoke Reduction Accounts for a Very Small Percentage of Total Woodsmoke

DAQ reported preliminary effects of the incentive program. At the time the analysis was done, only 83 conversions had been completed, all in Davis and Salt Lake counties. DAQ stated that based on this early analysis, the program will remove 17 tons of pollution over 20 years¹¹. The state’s cost to remove one ton of emissions from woodsmoke is \$14,435.

Figure 3.3 Emissions Reductions. Early analysis by DAQ shows that the woodburning appliance replacement program has reduced emissions from woodsmoke in its target area by 0.02 percent.

Number of Completed Projects	83
Total Cost	\$245,400
Tons of Emissions Removed Per Year	0.85
Tons of Emissions from Residential Woodsmoke in Davis and SLCo Per Year*	3507.74
Emissions Reduction Percent	0.02%

Source: Auditor Analysis

**Total woodsmoke is based on the most recent Statewide Emissions Inventory (2017).*

As seen in the Figure 3.3 above, one ton of emissions represents very little of the two counties’ total residential woodsmoke as found in the available data from the conversion program. DAQ should reevaluate how this program is administered and measured. DAQ should also conduct a cost-benefit analysis to determine if the measured reductions in woodsmoke are worth the high cost of the program.

Recommendations

1. We recommend that the Division of Air Quality target woodburning appliance conversions to households that burn wood as a primary or secondary source of heat.
2. We recommend that the Division of Air Quality develop more accurate measures to assess the effectiveness of the

¹¹ 20 years is the estimated useful life of the gas appliances

Wood Stove and Fireplace Appliance Conversion Assistance Program

3. We recommend that the Division of Air Quality conduct a cost-benefit analysis to determine if the measured reductions in woodsmoke are worth the cost of the program.
4. We recommend that the Division of Air Quality reevaluate how the Wood Stove and Fireplace Appliance Conversion Assistance Program is administered to determine whether the program is successful or should be altered or permanently discontinued.

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Chapter IV

DAQ Should Take Advantage of Shared Jurisdiction in the Oil and Gas Sector

Oil and gas well sites located on state land are subject to requirements from the divisions of Air Quality (DAQ), Water Quality (DWQ), and Oil, Gas, and Mining (DOGGM) which is in the Department of Natural Resources (DNR). Some areas of the state with significant oil and gas resources have pollution levels that are increasing. If air pollution continues to rise in the region then the federal Environmental Protection Agency (EPA) will require DAQ to increase its oversight and monitoring in the region. DAQ is attempting to address these issues through inspections; however, the division reports challenges with getting to every well site in a timely manner. DAQ should collaborate with DOGGM inspectors when feasible. DAQ has experienced success through collaborations with other internal divisions, which has helped increase inspections efficiency outside the oil and gas sector. Additional internal collaboration may be beneficial.

DAQ Can Do More to Address Air Quality Needs Related to Oil and Gas Production

Air quality in Utah's Uinta Basin has exceeded National Ambient Air Quality Standards (NAAQS) for ozone. Since DAQ has primary enforcement authority granted by the EPA to maintain air quality standards, DAQ will likely soon be legally required to act. One way that DAQ addresses air quality concerns is through the inspection of storage vessels located at oil and gas well sites. However, DAQ reports challenges in getting to the roughly 3,600 well sites in a timely manner. As a result, DAQ has lowered the inspection priority of lower-producing well sites. However, less frequent inspections of these lower-producing well sites is concerning, as low-producing well sites can be a significant source of emissions. Accordingly, we encourage DAQ to review its inspection cycle to ensure its inspections are sufficient.

DAQ reports challenges getting to the roughly 3,600 oil and gas sites located on state land.

DAQ Is Planning for EPA to Require More Stringent Air Quality Rules in the Uinta Basin

DAQ's most recent air inventory shows that 44 percent¹² of statewide volatile organic compounds (VOCs) emissions come from the oil and gas industry, which is primarily located in the Uinta Basin. While most oil and gas sites produce few emissions individually, the roughly 3,600 well sites located on state land cumulatively emit a level of VOCs that contribute to high levels of ground-level ozone¹³. Currently, the region is designated as marginal non-attainment status for VOCs. However, monitoring in the area indicates significant concern that the area will not meet the acceptable level of 70 ppm VOCs by the EPA's established deadline of August 2021. If the area goes over the 70 ppm requirement, then DAQ believes it is likely the EPA will reclassify the area to a moderate non-attainment status. In fact, DAQ has already begun planning for this oversight change by developing a State Implementation Plan (SIP) for the area. SIPs place more rigorous requirements on industry and individuals to reduce and maintain air pollution.

Oil and gas wells generate VOCs that contribute to high levels of ozone pollution in the Uinta Basin.

The Majority of Oil and Gas Wells Are Currently Not Required to Control Their VOC Emissions. New wells and higher-producing wells must control at least 95 percent of their VOC emissions, according to *Utah Administrative Code*. However, after one year of operation, wells that produce fewer than 8,000 barrels of oil or 2,000 barrels of condensate (gas) per year can remove their VOC control device.¹⁴ UAC 307-506-4 states:

(2) All storage vessels located at a well site that are in operation as of January 1, 2018, with a site-wide throughput of 8,000 barrels or greater of crude oil or

¹² This inventory does not include fugitive VOCs from disposal ponds, landfills, and land farms. Thus, total VOCs for the area could be even higher.

¹³ In total, the state has more than 12,000 wells (mostly located in the Uinta Basin) but the EPA/tribes have jurisdiction over all wells located on federal and tribal lands.

¹⁴ The production limits are based on EPA analyses that correlated oil and gas production amounts to VOC emissions. According to the EPA, production over 8,000 barrels of oil or 2,000 barrels of condensate would likely approach 5 tons, which would require the source to obtain an AO and follow more rigorous requirements.

2,000 barrels or greater of condensate per year on a rolling 12-month basis shall comply with...(a) VOC emissions from storage vessels shall either be routed to a process unit where the emissions are recycled, incorporated into a product and/or recovered, or be routed to a VOC control device that is in compliance with R307-508...(3) All storage vessels that begin operations on or after January 1, 2018, are required to control VOC emissions...upon startup of operation for a minimum of one year.

According to UAC 307-508-3 (1) “a VOC control device required by R307-506 or R307-507 must have a control efficiency of 95 percent or greater... (3) VOC controls devices and all other associated equipment shall be inspected monthly...to ensure the integrity of the equipment is maintained and is operational.”

Because of these rules, well sites that fall below the established production threshold to require a VOC control device are also referred to as uncontrolled well sites. Of the roughly 3,600 wells located on state land, 2,426 well sites are uncontrolled. Uncontrolled well sites can emit more VOCs than controlled well sites. For example, a theoretical controlled well site (with no leaks) that produces exactly 5 tons of VOCs would emit at most 0.25 tons of VOCs, after routing emissions through a VOC control device with 95 percent efficiency. Uncontrolled well sites can emit 100 percent of their emissions up to four tons of annual VOCs.

Lowering Inspection Priority of Uncontrolled Sources is Concerning

DAQ management reports that it will likely lower the priority to inspect many uncontrolled sites, because these sites have few rules they must follow and therefore little to inspect. However, with the region exceeding NAAQS for the past two years, we believe DAQ should evaluate its inspection protocols to ensure they are designed to help the region reach attainment. Additionally, we are concerned there are no emission control requirements or leak detection and repair requirements at these uncontrolled well sites. Leaks are more likely to be undetected for longer periods of time at uncontrolled well sites because leak detection requirements for operators of these well sites are less robust.

New and high-producing oil and gas well sites must control VOC emissions at a rate of at least 95 percent efficiency.

The majority of well sites are not required to control VOC emissions.

DAQ will likely lower the inspection priority of uncontrolled well sites.

Uncontrolled well sites are not required to conduct regular leak detection and repair.

Higher-producing well sites are required to conduct leak detection regularly, which requires the use of monitoring equipment such as an optical gas imaging (OGI) camera, which allows operators to easily detect emissions caused by leaks. Leaks identified through this method must be fixed in 15 days. According to UAC 307-509, which establishes requirements for leak detection and repairs to control VOC emissions, sources subject to R307-506 (wells producing over 8,000 barrels of oil or 2,000 barrels of condensate) must:

- Establish an emissions monitoring plan
- Conduct a semiannual¹⁵ monitoring survey using an OGI camera or an equivalent method approved by the EPA
- Repair any detected leak within 15 days
- Maintain associated records

In addition, operators of these well sites must “inspect at least once a month each closed vent system, including vessel openings, thief hatches, and bypass devices, for defects that can result in air emissions.”

Operators of uncontrolled well sites are only required to fix leaks if they are identified through self-inspections using audio, visual, and olfactory (AVO) methods. One air quality inspector estimates that DAQ inspections detect leaks at 30 to 40 percent of uncontrolled well sites. These leaks often cannot be detected through AVO alone. According to DAQ’s most recent air inventory, over half the identified VOC emissions from the exploration and production of oil and gas are fugitive.^{16 17} We encourage the division to explore opportunities to inspect oil and gas sites more frequently, as discussed more in the next section.

According to DAQ’s most recent air inventory, over half the identified VOC emissions from the oil and gas industry are fugitive.

¹⁵ Standards are different for “difficult-to-monitor” and “unsafe-to-monitor” well components.

¹⁶ Fugitive Emissions are emissions from a source that are neither passed through an air cleaning device nor vented through a stack.

¹⁷ The air inventory does not include VOC emissions from oil and gas exploration and production waste disposal ponds, landfills, and land farms. DAQ is working to include these emissions in its next air inventory.

Better Coordination with Other State Entities Can Increase the Number of Air Quality Inspections

DAQ strives to conduct inspections of each oil and gas well site on state land at least every five years to ensure that equipment works properly and operators meet applicable emissions requirements. DAQ has experienced challenges meeting this internal goal. DAQ has only one inspector located in the Uinta Basin, so other inspectors must travel from Salt Lake City to perform inspections, which reduces efficiency. To address this deficiency:

- DAQ should coordinate with inspectors from the Division of Oil, Gas, and Mining (DOG M) who are located in the Uinta Basin and able to visit wells more frequently
- DAQ should continue to find opportunities to work with other DEQ divisions to find efficiencies in inspections outside of the oil and gas sector

One way DAQ has attempted to address inspection limitations is by conducting some partial well site inspections. Partial inspections can be completed quickly and mostly focus on leak detection using an optical gas imaging (OGI) camera. The agency reports that it has increased annual inspections from 168 to 262 per year. Still, with around 3,600 operating wells on state land, it will take over 13 years to visit each well once.

Collaboration with DOGM May Be Possible and Beneficial

The Division of Oil, Gas, and Mining (DOG M) also has jurisdiction over oil and gas well sites located on state land. DOGM prioritizes inspections of these well sites based on several factors including production amount, risk, and the date of the previous inspection. DOGM inspections look at numerous aspects of oil and gas exploration and production at well sites. They do not currently check for leaks using an OGI camera. However, they do use the less robust AVO method to identify leaks. Currently, DOGM inspectors share major issues with DAQ on an informal basis.

DOG M inspectors may be able to assist DAQ with leak detection during regularly scheduled inspections at some oil and gas sites. The Director of DOGM has agreed that more formalized coordination is

DAQ has increased its presence in the oil and gas region through the use of partial inspections.

possible and could be beneficial. However, collaboration may be complicated by the lack of a DAQ relational inspections database (as discussed in Chapter 2) that would allow DAQ to easily identify favorable sites and would automatically adjust future DAQ inspections assignments. Favorable sites would likely be uncontrolled sites that do not operate additional equipment that may trigger further air quality requirements. The director of DOGM reports that the mining side of his division has used an infrared sensing camera, similar to an OGI camera, which was on loan from a federal agency.

Formalized coordination between DOGM and DAQ may be possible, but at this point, we have not seen criteria showing that coordination between other DEQ divisions and DOGM is fully effective. For example, the Division of Water Quality (DWQ) and DOGM have a memorandum of understanding (MOU) to protect surface and ground waters of the state from degradation. However, all coordination between DEQ divisions and DOGM appears to be informal. If DAQ and DOGM determine that coordination is beneficial, we would expect to see reporting procedures established so that DAQ can continue to ensure that air quality inspection needs are being met in the Uinta Basin and both agencies can avoid duplication of efforts.

DAQ Has Successfully Collaborated with Other Internal Divisions to Meet Compliance Needs

DAQ has demonstrated its ability to coordinate with other divisions to administer its inspections and compliance program.

- DAQ currently works with the Division of Environmental Response and Remediation (DERR) to ensure compliance with air quality rules at gas stations.
- DAQ has merged its Fugitive Dust Control Plan (FDCP) application with DWQ's Storm Water Pollution Prevention Plan (SWPPP), resulting in a surge of FDCP applications and facilitating greater compliance by sources of fugitive dust.

Formalized coordination with DOGM could lead to greater air quality oversight in the Uinta Basin.

Coordination with other divisions to facilitate inspections leads to greater efficiencies and allows DAQ inspectors to increase their presence elsewhere. DAQ should continue to explore opportunities to coordinate inspections with other divisions, when feasible. We believe that greater coordination through a formalized relationship with DOGM could also increase compliance with air quality requirements in the oil and gas sector and lessen the burden on DAQ inspections.

Coordination with other divisions to facilitate inspections leads to greater efficiencies and allows DAQ inspectors to increase their presence elsewhere.

Recommendations

1. We recommend that the Division of Air Quality explore ways it can efficiently use Division of Oil, Gas, and Mining (DOGM) inspections to increase its effectiveness in the oil and gas sector.
2. We recommend the Division of Air Quality continue to find opportunities to work with other Department of Environmental Quality divisions to find efficiencies in inspections outside of the oil and gas sector.

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Agency Response

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State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

August 6, 2020

Kade Minchey, CIA, CFE
Auditor General
315 House Building
Salt Lake City, Utah 84114

RE: Performance Audit of the Division of Air Quality Report No. 2020-05

Dear Mr. Minchey,

The Utah Department of Environmental Quality sees the value in an outside evaluation of the department's performance and responsibilities. We commend you and your staff for your professionalism and thoroughness in completing the audit of our agency resulting in helpful recommendations for improvement. Such improvements will further our commitment and support our efforts to achieve our mission to safeguard and improve Utah's air, land, and water through balanced regulation.

We generally concur with the audit recommendations and we will implement changes. Below you will find our responses to specific chapters and the recommendations found in the audit report.

Chapter II-Centralized Database Needed to Determine Success of Air Quality Compliance Program

FIND WAYS TO IMPROVE DATA MANAGEMENT TO FACILITATE ANALYSIS OF ITS EFFECTIVENESS

Actions Taken

The Division of Air Quality (DAQ) has initiated discussions between permitting, compliance and planning branches to identify data sharing and system management requirements.

Actions Planned

Identification of shared data and workflow process requirements within all 3 branches. Increasing communication between branches to ensure data collection improvement, streamlining workflow processes that affect multiple branches are shared and continually updated. Identifying issues with centralized data management and how to overcome challenges. With this information DAQ will work with the Department of Technology Services (DTS) to develop a request for proposal to obtain cost estimates for the development of a relational compliance database.

DAQ'S COMPLIANCE BRANCH SHOULD CONTINUE TO COLLABORATE WITH THE PERMITTING AND PLANNING BRANCHES TO IMPROVE DATA AND FACILITATE COMPLETE DOCUMENTATION OF EACH SITE'S PERMITTING, INSPECTION, AND COMPLIANCE HISTORY

Actions Taken

This is a current practice however all 3 branches use separate databases. Permitting and Compliance are now meeting regularly to collaborate and share data. Planning is invited to attend these meetings as well.

Actions Planned

The Compliance Branch will continue to collaborate with the other branches. In cooperation with DTS, DAQ will investigate the benefit and costs of a centralized relational compliance database that will contain complete documentation of each site's permitting, inspection and compliance history. DAQ anticipates pursuing additional funding to develop and maintain this planned database.

COMPLIANCE BRANCH SHOULD PERIODICALLY REVIEW ITS LIST OF ACTIVE MAJOR AND MINOR SOURCES TO IDENTIFY STATUS CHANGES

Actions Taken

The Major Source Compliance Section does this every year in preparation for the Compliance Monitoring Strategy (CMS) that is submitted to EPA. Beginning in 2019, the Compliance and Permitting Minor Source Sections meet annually to cross reference their two data sources of sites before the Minor Source Compliance Section issues the yearly inspection assignments. This is done to ensure that the Compliance Branch is up to date on any new sources, revocations, and changes to small sources. The Compliance Branch maintains a list of any NOV's and violations as priorities as well as new permit dates

Actions Planned

The Major and Minor Source Compliance Sections will continue periodic reviews of active sources and adjust assignments accordingly. Compliance and Permitting Branches will continue to work together annually and improve this process, streamlining for faster knowledge for revocations and Small Source Exemptions to help ensure Compliance does not assign inspections to incorrect sites and to maximize resources. With this information DAQ will work with DTS to develop a request for proposal to obtain cost estimates for the development of a relational compliance database.

Chapter III-DAQ Can Improve Its Oversight of Some New Air Quality Funds

TARGET WOOD-BURNING APPLIANCE CONVERSIONS TO HOUSEHOLDS THAT BURN WOOD AS A PRIMARY OR SECONDARY SOURCE OF HEAT

Actions Taken

The program is being implemented in alignment with the legislation that created the program and the appropriations provided for the program. The Division agrees that there has not been a requirement to obtain information about the current use of the wood burning appliance as part of the incentive program. Although, the retrofit of the appliance to a clean heating option does ensure that the current and future owners of the home will not be able to burn wood in the future. The program registration form has been updated to screen out applicants outside of the Meridian (boundaries defined by Legislation) that are not using their wood-burning device as either a primary or secondary source.

Actions Planned

The new registration system will be utilized moving forward.

DEVELOP MORE ACCURATE MEASURES TO ASSESS THE EFFECTIVENESS OF THE WOOD STOVE AND FIREPLACE APPLIANCE CONVERSION ASSISTANCE PROGRAM

Actions Taken

The program is currently implemented in alignment with the legislation that created the program and the appropriations provided for the program. DAQ will use the EPA Wood Stove Emissions Calculator tool to calculate emission reductions. The tool provides emissions factors based on whether the device was used for primary burning, secondary burning, or recreational burning. Removing a wood-burning appliance from the inventory is the best way to permanently remove current and future wood-burning emissions from the airshed. Before awarding the rebate, DAQ verifies with photography that the wood-burning device was removed or disabled and that the new device is what was approved and was installed correctly.

Actions Planned

Use the EPA tool to quantify emissions reductions.

DAQ SHOULD CONDUCT A COST-BENEFIT ANALYSIS TO DETERMINE IF THE MEASURED REDUCTIONS IN WOOD SMOKE ARE WORTH THE HIGH COST OF THE PROGRAM

Actions Taken

The DAQ provided an extensive list of potential air emissions reduction incentive options to the Legislature during the 2019 General Session (The Governor's \$100,000,000 push for Air Quality). The list included a cost-benefit analysis for each option, and the cost for this program was estimated to be \$14,000/ton of emissions reduced. This cost per ton is actually much lower than many of the controls included in our State Implementation Plan controls. The wood-smoke reduction program was identified by the Legislature as cost effective and subsequently the DAQ was directed to begin the program by the Legislature through both a bill and appropriations. Our

Analysis of what we have done so far is that the actual cost per ton (cost/benefit) is in line with the estimates provided to the Legislature in 2019.

Actions Planned

Continue to use the EPA Wood Stove Emissions Calculator to evaluate and quantify cost effectiveness of the program.

REEVALUATE HOW THE WOOD STOVE AND FIREPLACE APPLIANCE CONVERSION ASSISTANCE PROGRAM IS ADMINISTERED TO DETERMINE WHETHER THE PROGRAM IS SUCCESSFUL OR SHOULD BE ALTERED OR PERMANENTLY DISCONTINUED

Actions Taken

The program is being implemented in alignment with the legislation that created the program and the appropriations provided for the program. Success is being measured based on units removed and emissions reductions achieved.

Actions Planned

Because program success is based on emissions removed from the airshed, we will continue to use the EPA Wood Stove Emissions Calculator to measure effectiveness in terms of emissions reduced. Periodic reports will be provided to the Legislature that will include the results of the incentive program.

Chapter IV-DAQ Should Take Advantage of Shared Jurisdiction in the Oil and Gas Sector

EXPLORE WAYS TO EFFICIENTLY USE DOGM INSPECTIONS TO INCREASE ITS EFFECTIVENESS IN THE OIL AND GAS SECTOR

Actions Taken

DEQ and the Division of Oil, Gas and Mining (DOGM) within the Department of Natural Resources have begun discussions on collaboration.

Actions Planned

A former DOGM inspector is now a DAQ employee and is based in the Vernal area. DOGM and DAQ will leverage this employee's professional experience and will coordinate on opportunities where the two agencies can benefit each other.

CONTINUE TO FIND OPPORTUNITIES TO WORK WITH OTHER DEQ DIVISIONS TO FIND EFFICIENCIES IN INSPECTIONS OUTSIDE OF THE OIL AND GAS SECTOR

Actions Taken

DAQ currently works with the Division of Water Quality on fugitive dust control plans and the Division of Environmental Response and Remediation regarding VOC vapor controls on gasoline storage tanks.

Actions Planned

Continue to identify areas where inspection efficiencies can be gained by partnering with other DEQ Divisions and other governmental agencies.

We look forward to successfully implementing the recommendations in the audit report and thank you again for the opportunity to participate in the process.

Sincerely,



Bryce C. Bird
Director - Division of Air Quality

Air Toxics



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQA-410-20

MEMORANDUM

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: August 13, 2020

SUBJECT: Air Toxics, Lead-Based Paint, and Asbestos (ATLAS) Section Compliance Activities – July 2020

Asbestos Demolition/Renovation NESHAP Inspections	16
Asbestos AHERA Inspections	17
Asbestos State Rules Only Inspections	4
Asbestos Notification Forms Accepted	195
Asbestos Telephone Calls	343
Asbestos Individuals Certifications Approved	69
Asbestos Company Certifications/Re-Certifications	0/4
Asbestos Alternate Work Practices Approved/Disapproved	5/0
Lead-Based Paint (LBP) Inspections	5
LBP Notification Forms Approved	2
LBP Telephone Calls	59
LBP Letters Prepared and Mailed	2
LBP Courses Reviewed/Approved	0
LBP Course Audits	0
LBP Individual Certifications Approved	11

LBP Firm Certifications	9
Notices of Violation Sent	0
Compliance Advisories Sent	8
Warning Letters Sent	3
Settlement Agreements Finalized	3
Penalties Agreed to:	
All Clear Environmental	\$2,109.38
Paul Davis Restoration of the Wasatch Front	\$6,000.00
Flood Pros Construction	<u>\$3,750.00</u>
Total	\$11,859.38

Compliance



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

L. Scott Baird
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQC-1147-20

MEMORANDUM

TO: Jay Morris, Compliance Branch Manager
FROM: Rik Ombach, Minor Source Compliance Manager
DATE: August 14, 2020
SUBJECT: Compliance Activities – July 2020

Annual Inspections Conducted:

Major	15
Synthetic Minor	1
Minor	57
On-Site Stack Test Audits Conducted:	5
Stack Test Report Reviews:	24
On-Site CEM Audits Conducted:	0
Emission Reports Reviewed:	26
Temporary Relocation Requests Reviewed & Approved:	4
Fugitive Dust Control Plans Reviewed & Accepted:.....	122
Burn Permits Issued:	0
Soil Remediation Report Reviews:	3
¹ Miscellaneous Inspections Conducted:.....	37

Complaints Received:	23
Breakdown Reports Received:	1
Compliance Actions Resulting from a Breakdown:	0
Warning Letters Issued:	1
Notices of Violation Issued:.....	0
Unresolved Notices of Violation	
Citation Oil and Gas (2).....	01/08/2020
Reaction Cargo	01/09/2020
University of Utah	02/10/2020
US Magnesium	01/08/2019
US Magnesium	03/02/2018
US Magnesium	08/27/2015
EP Energy	01/01/2020
Ovintiv Production.....	07/15/2020
Compliance Advisories Issued:.....	6
No Further Action Letters Issued.....	5
Settlement Agreements Reached:	1
Holly Refining	\$7,640

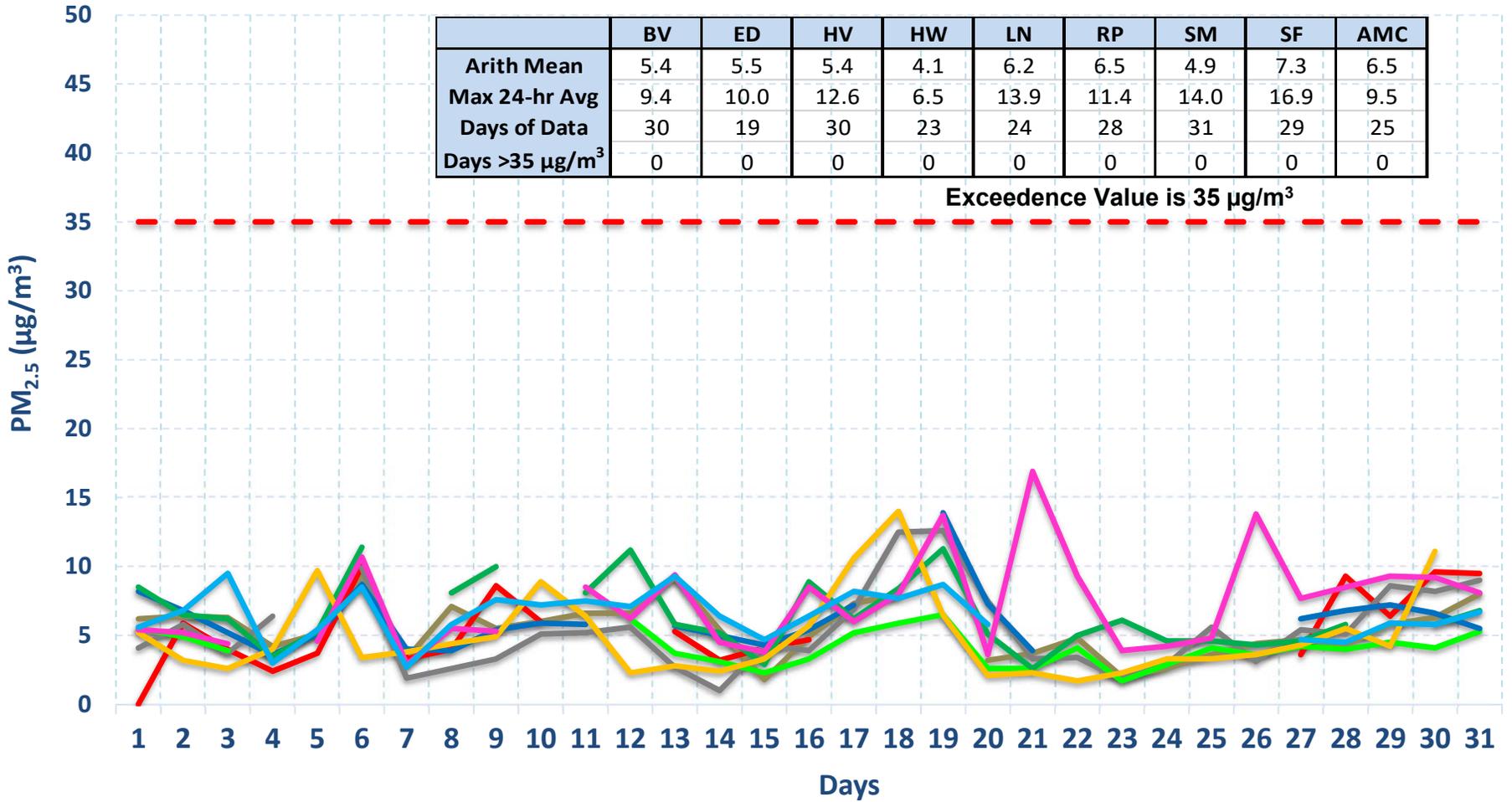
¹Miscellaneous inspections include, e.g., surveillance, level I inspections, VOC inspections, complaints, on-site training, dust patrol, smoke patrol, open burning, etc.

Air Monitoring

Utah 24-Hr PM_{2.5} Data May 2020

	BV	ED	HV	HW	LN	RP	SM	SF	AMC
Arith Mean	5.4	5.5	5.4	4.1	6.2	6.5	4.9	7.3	6.5
Max 24-hr Avg	9.4	10.0	12.6	6.5	13.9	11.4	14.0	16.9	9.5
Days of Data	30	19	30	23	24	28	31	29	25
Days >35 µg/m ³	0	0	0	0	0	0	0	0	0

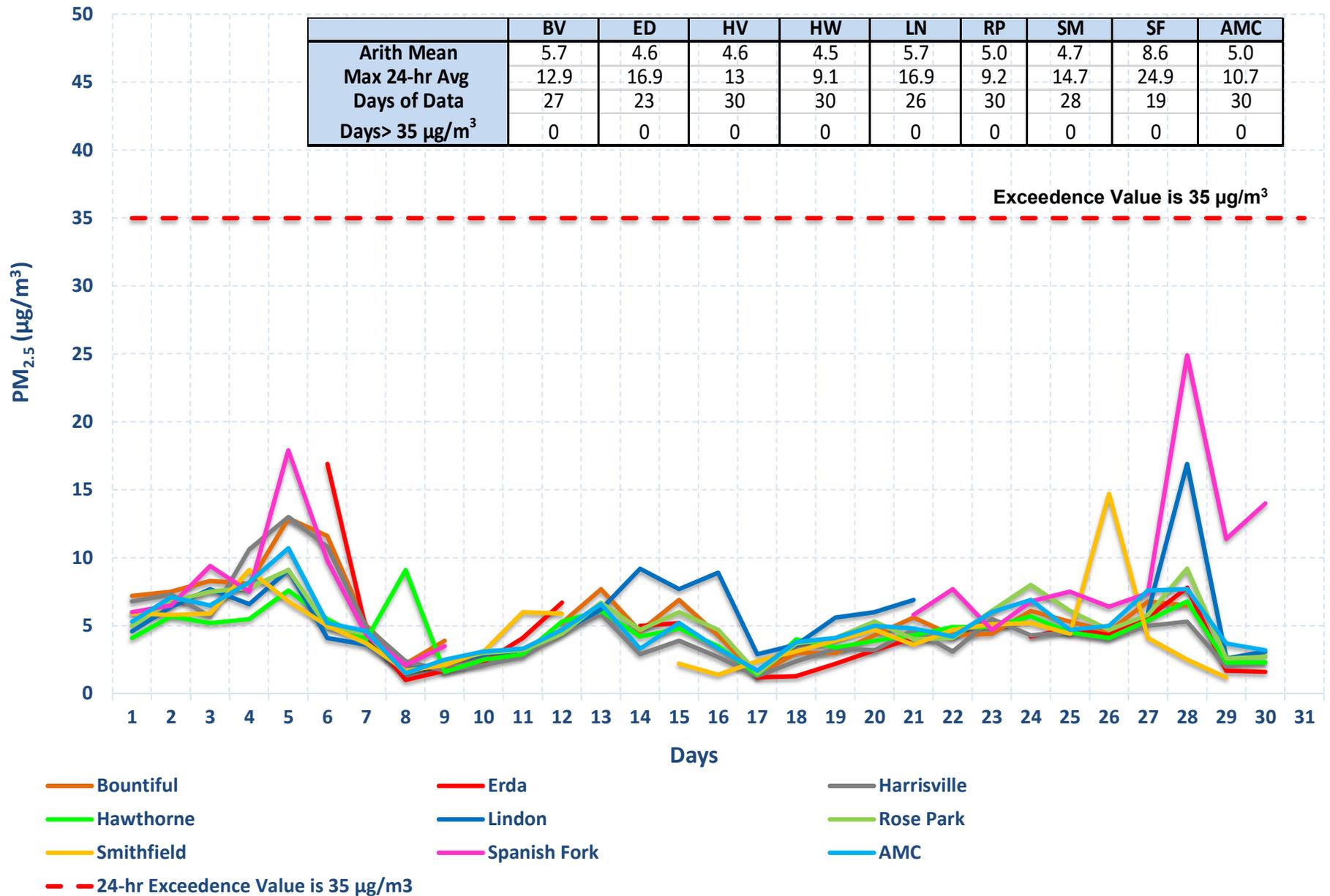
Exceedence Value is 35 µg/m³



- Bountiful
- Erda
- Harrisville
- Hawthorne
- Lindon
- Rose Park
- Smithfield
- Spanish Fork
- AMC
- - - 24-hr Exceedence Value is 35 µg/m³

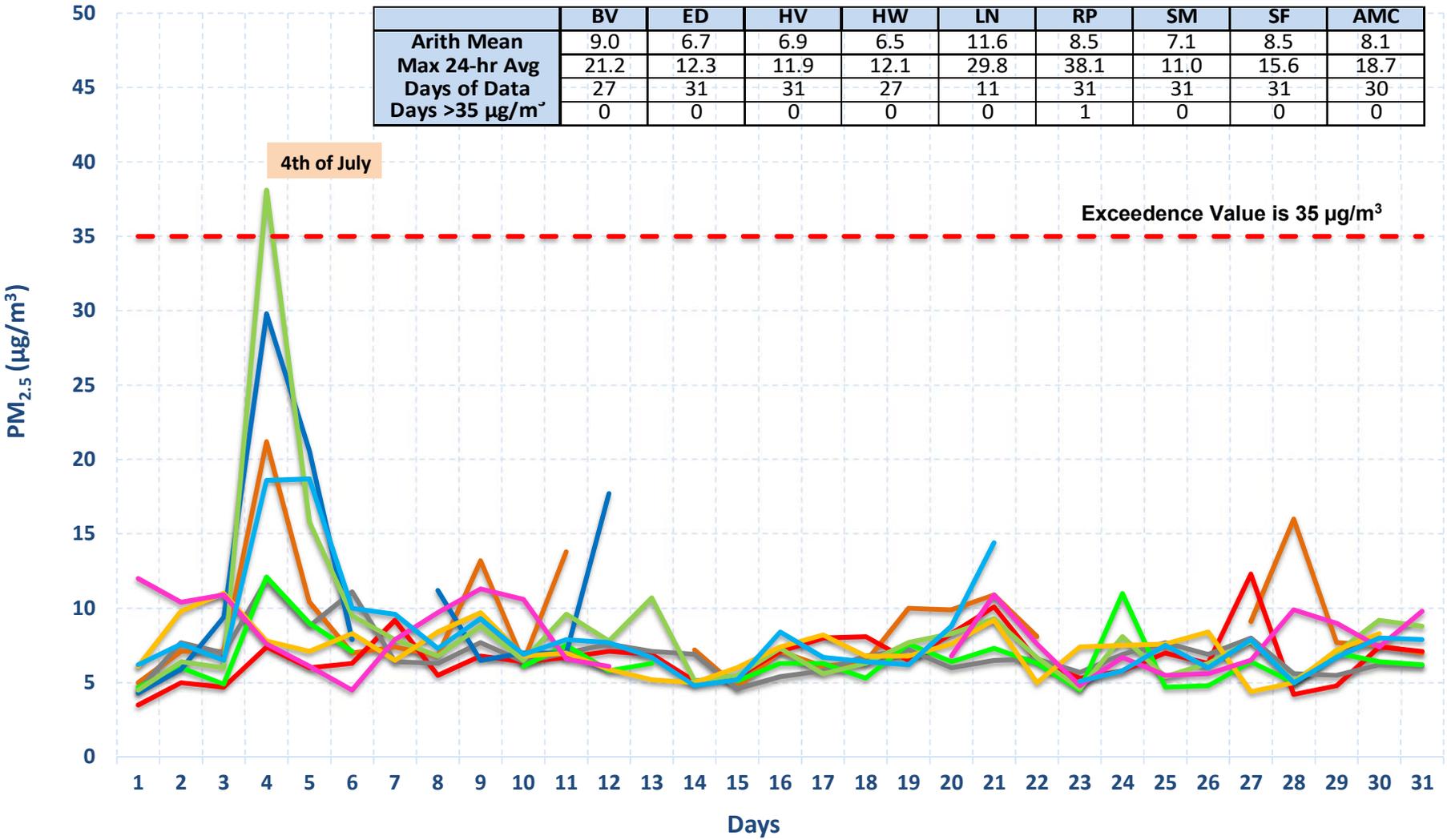
Utah 24-Hr PM_{2.5} Data June 2020

	BV	ED	HV	HW	LN	RP	SM	SF	AMC
Arith Mean	5.7	4.6	4.6	4.5	5.7	5.0	4.7	8.6	5.0
Max 24-hr Avg	12.9	16.9	13	9.1	16.9	9.2	14.7	24.9	10.7
Days of Data	27	23	30	30	26	30	28	19	30
Days > 35 µg/m ³	0	0	0	0	0	0	0	0	0



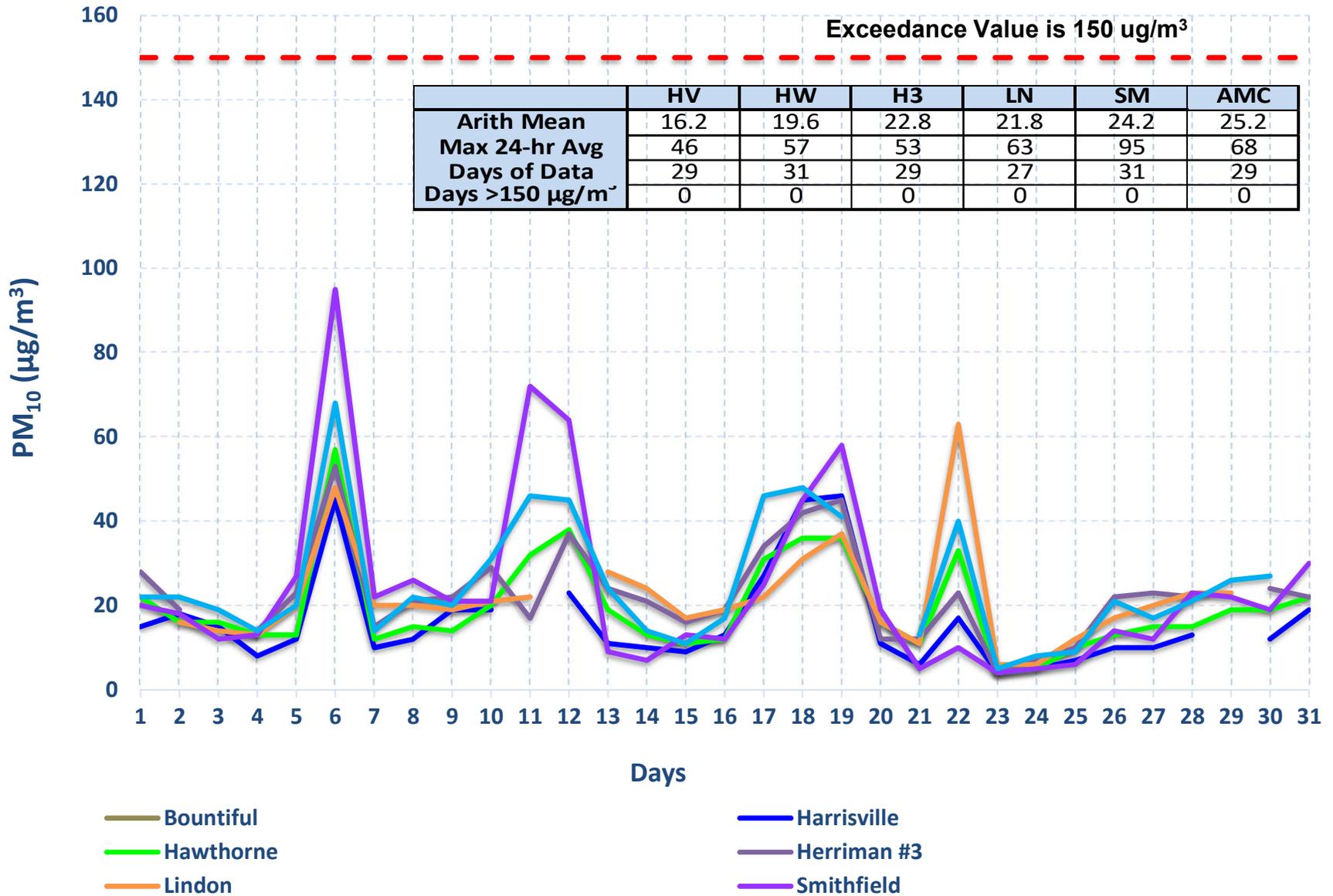
Utah 24-Hr PM_{2.5} Data July 2020

	BV	ED	HV	HW	LN	RP	SM	SF	AMC
Arith Mean	9.0	6.7	6.9	6.5	11.6	8.5	7.1	8.5	8.1
Max 24-hr Avg	21.2	12.3	11.9	12.1	29.8	38.1	11.0	15.6	18.7
Days of Data	27	31	31	27	11	31	31	31	30
Days >35 µg/m ³	0	0	0	0	0	1	0	0	0



- Bountiful
- Erda
- Harrisville
- Hawthorne
- Lindon
- Rose Park
- Smithfield
- Spanish Fork
- AMC
- - - 24-hr Exceedance Value is 35 µg/m³

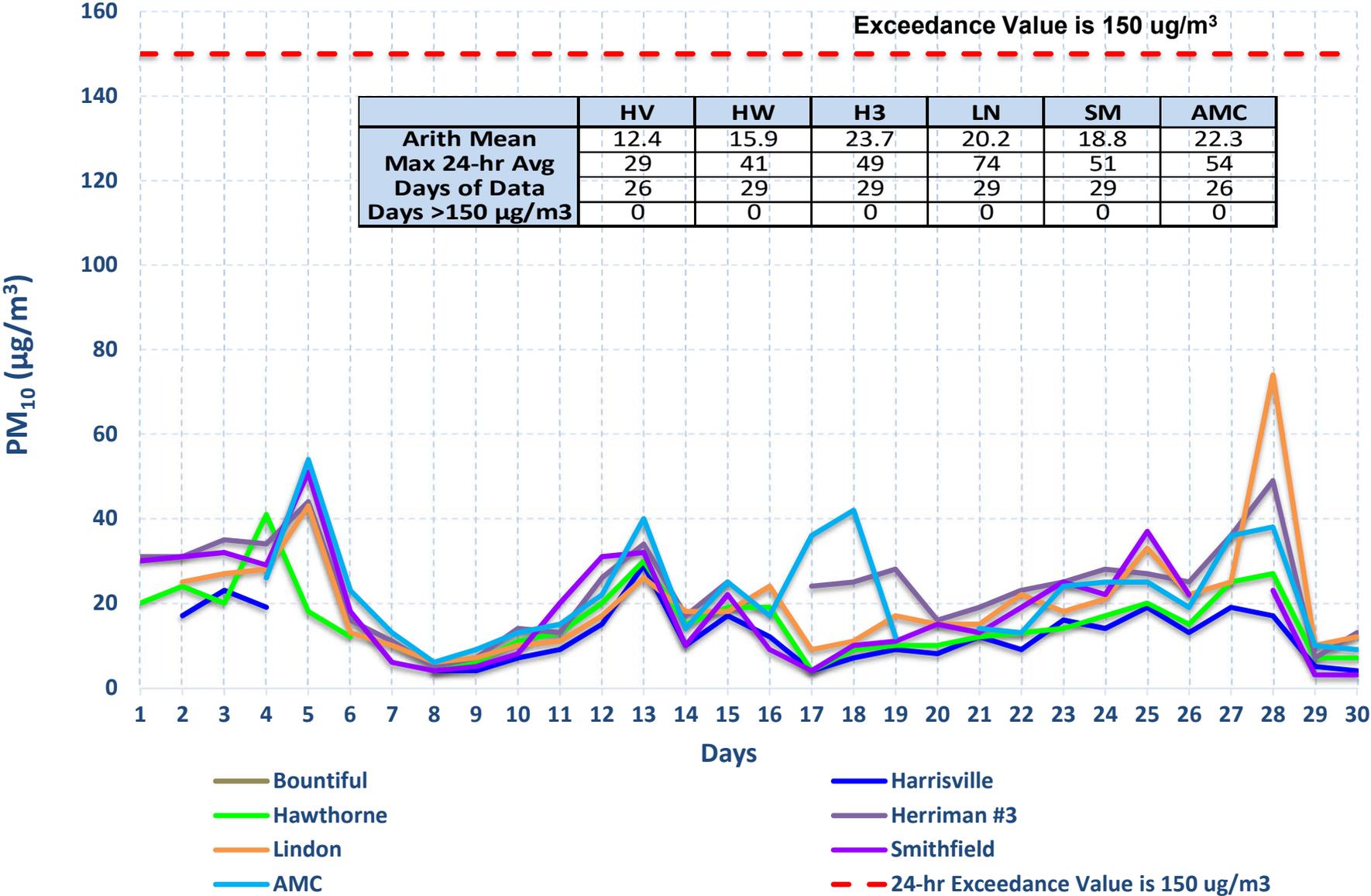
Utah 24-hr PM₁₀ Data MAY 2020



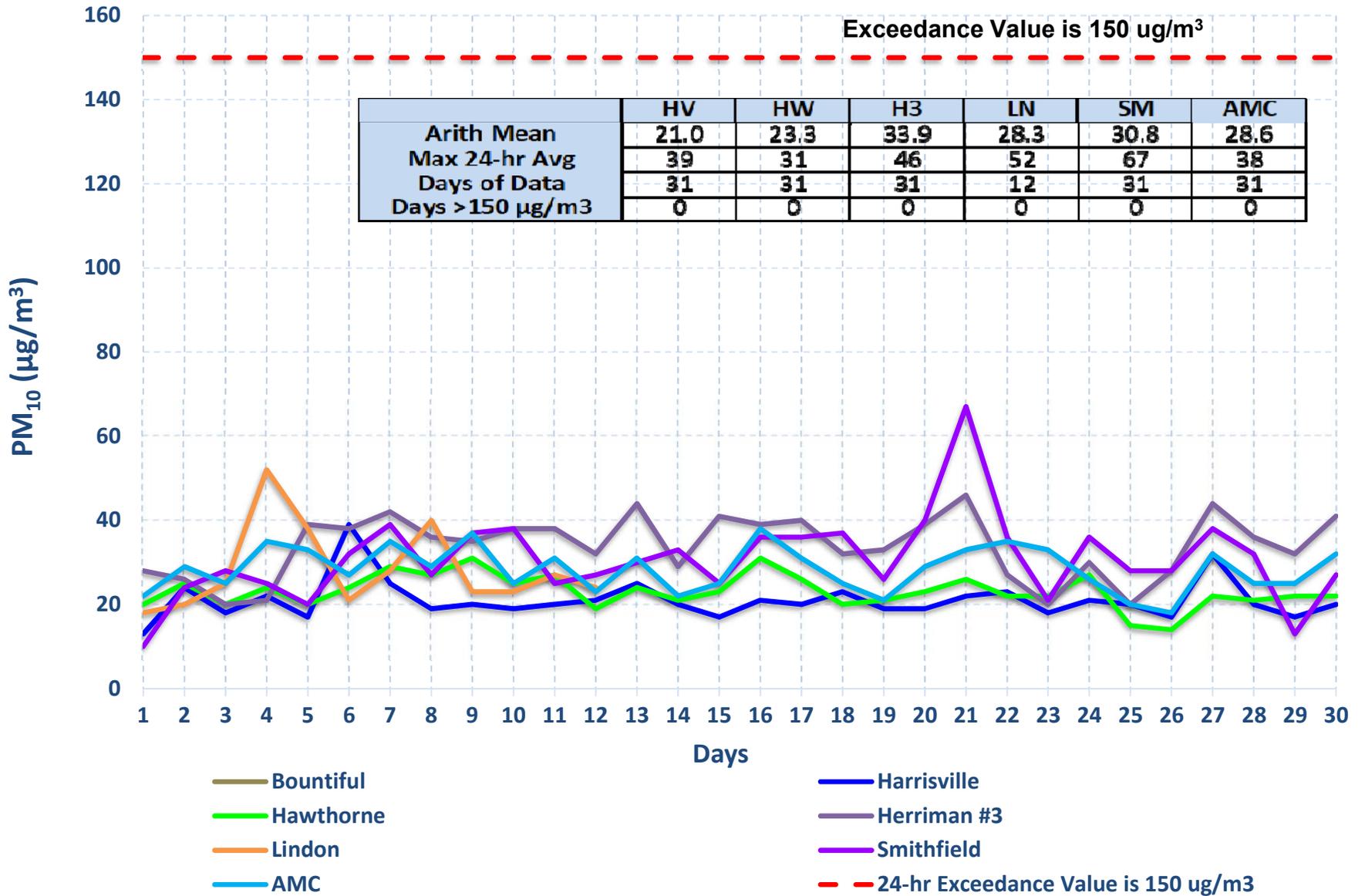
Utah 24-hr PM₁₀ Data JUNE 2020

Exceedance Value is 150 ug/m³

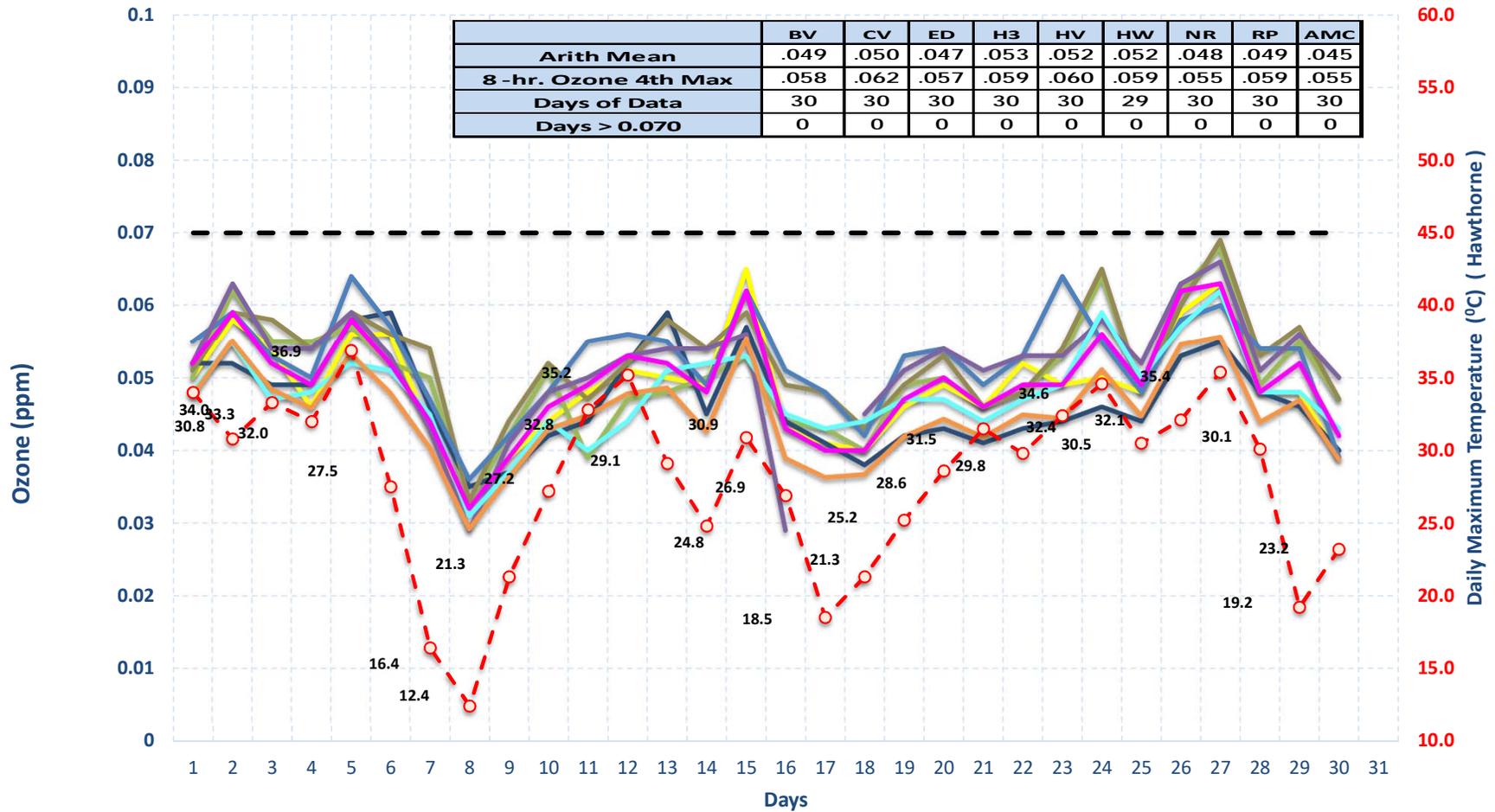
	HV	HW	H3	LN	SM	AMC
Arith Mean	12.4	15.9	23.7	20.2	18.8	22.3
Max 24-hr Avg	29	41	49	74	51	54
Days of Data	26	29	29	29	29	26
Days >150 µg/m³	0	0	0	0	0	0



Utah 24-hr PM₁₀ Data JULY 2020

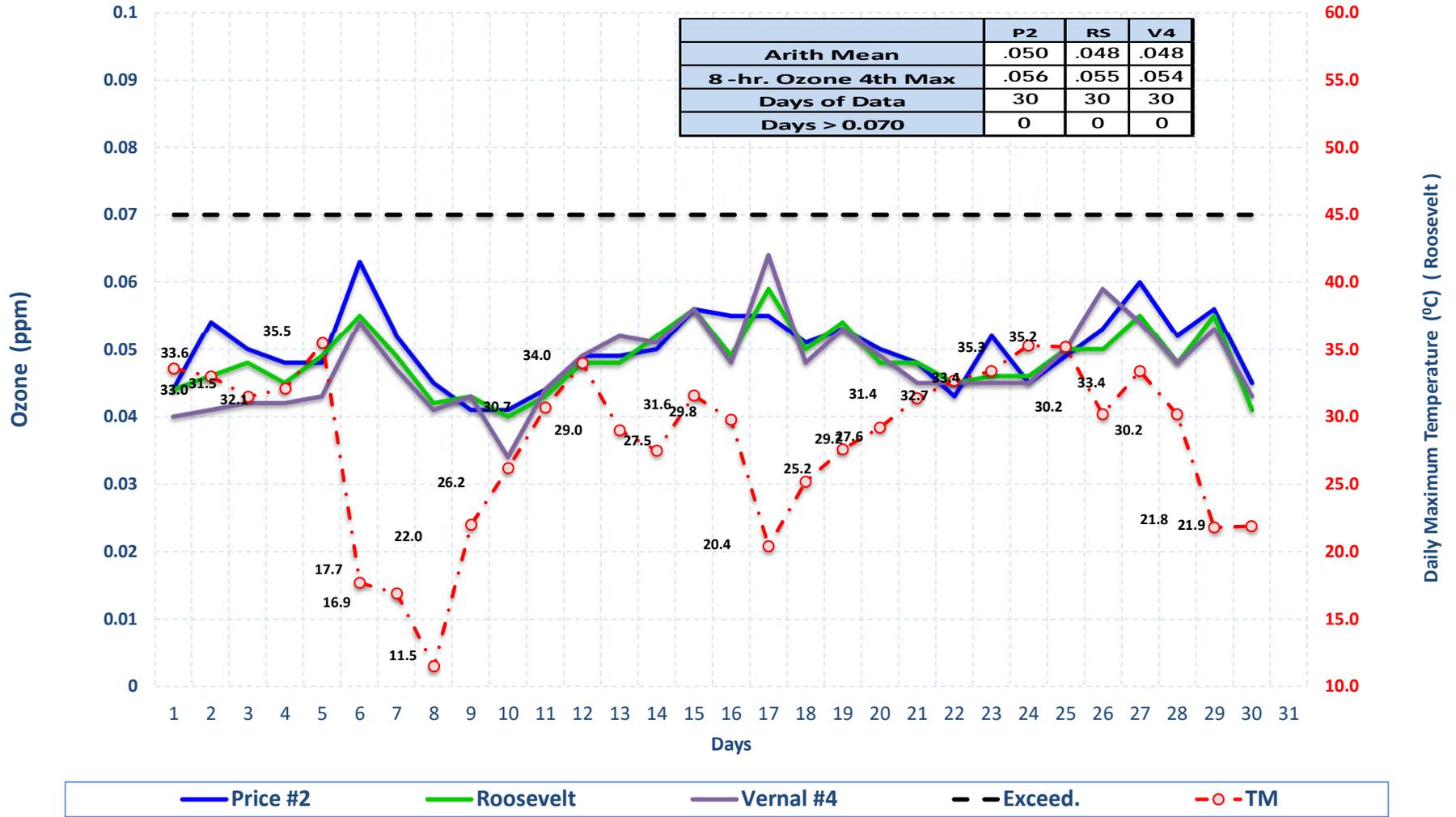


Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2020

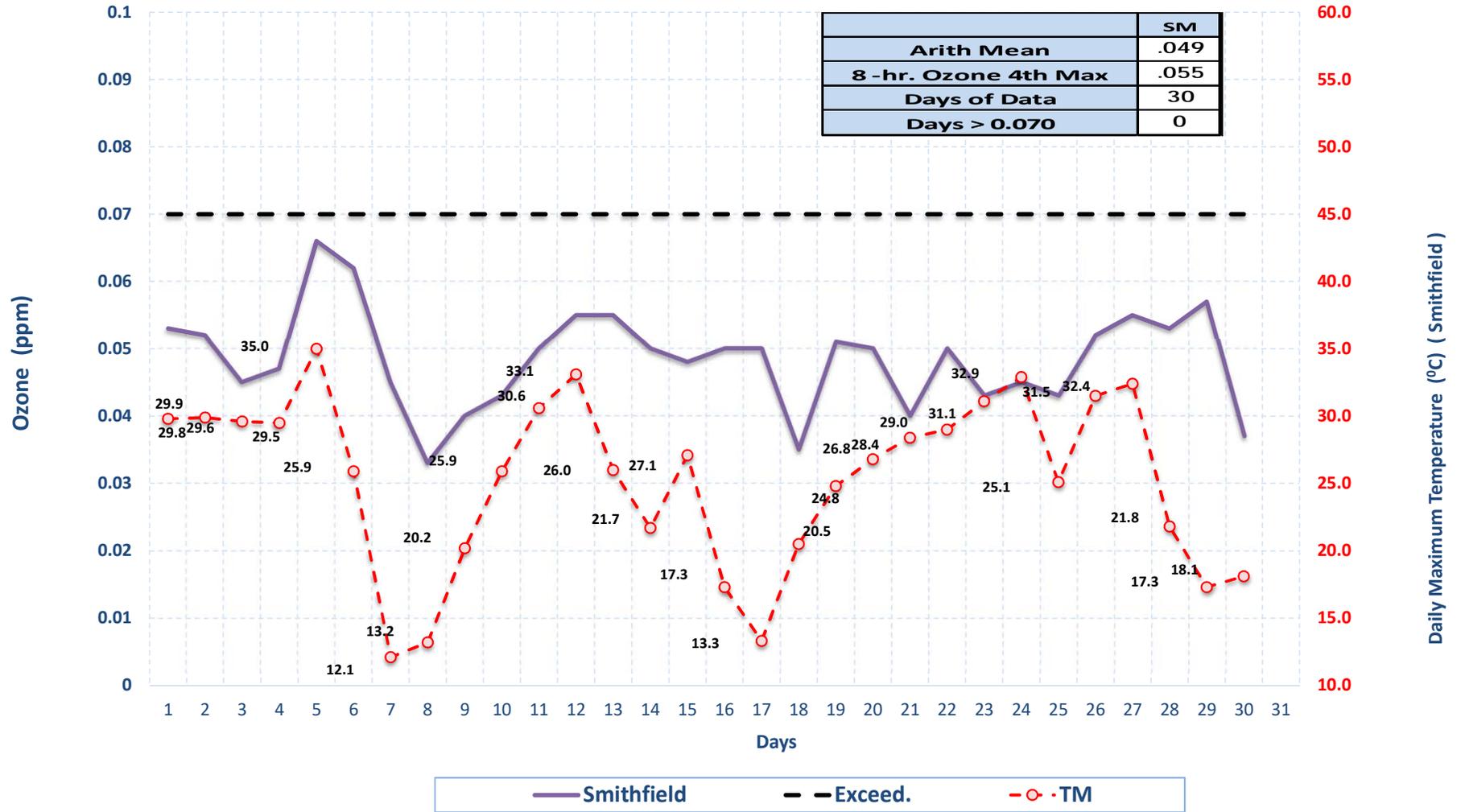


Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2020

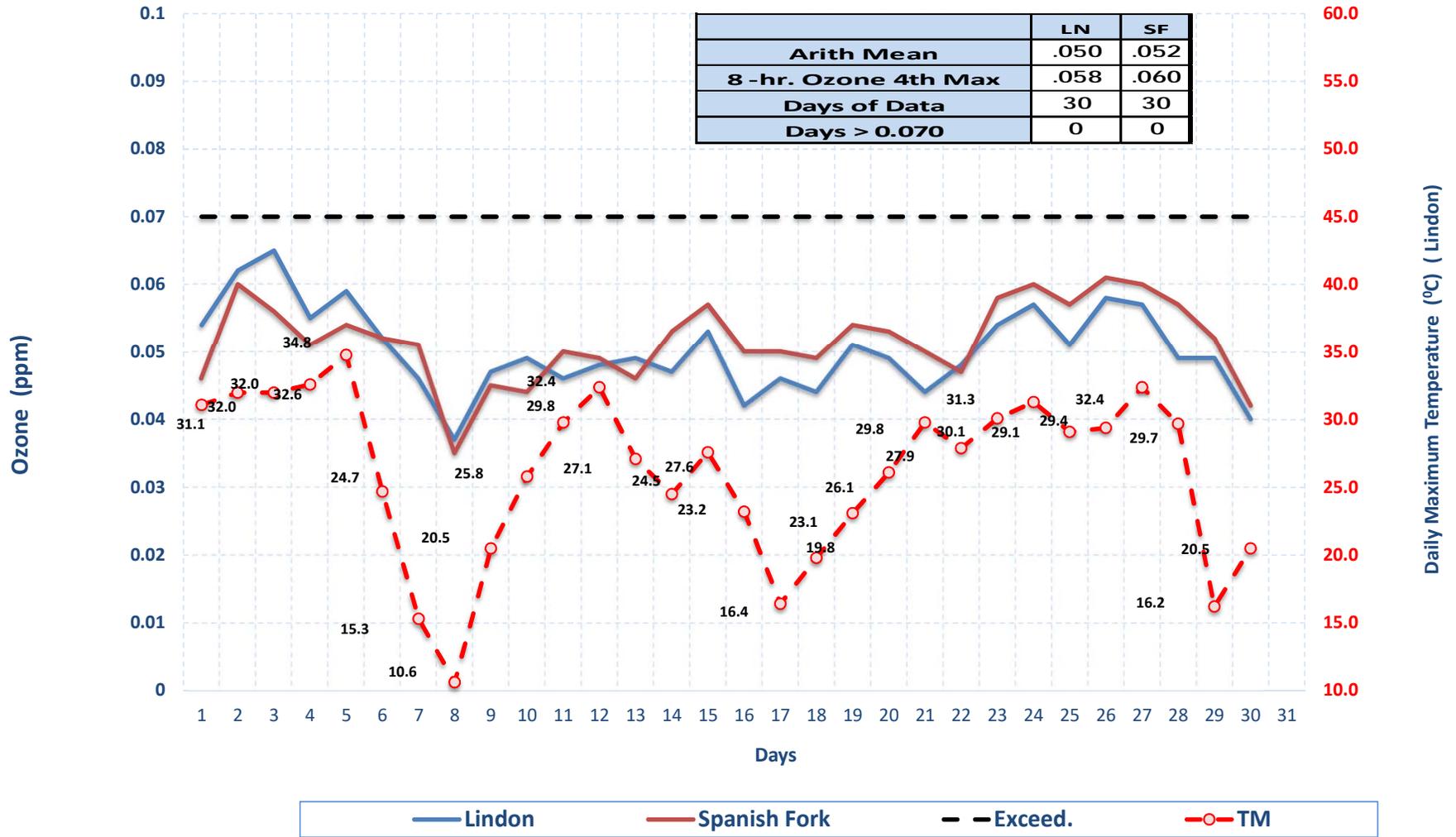
	P2	RS	V4
Arith Mean	.050	.048	.048
8-hr. Ozone 4th Max	.056	.055	.054
Days of Data	30	30	30
Days > 0.070	0	0	0



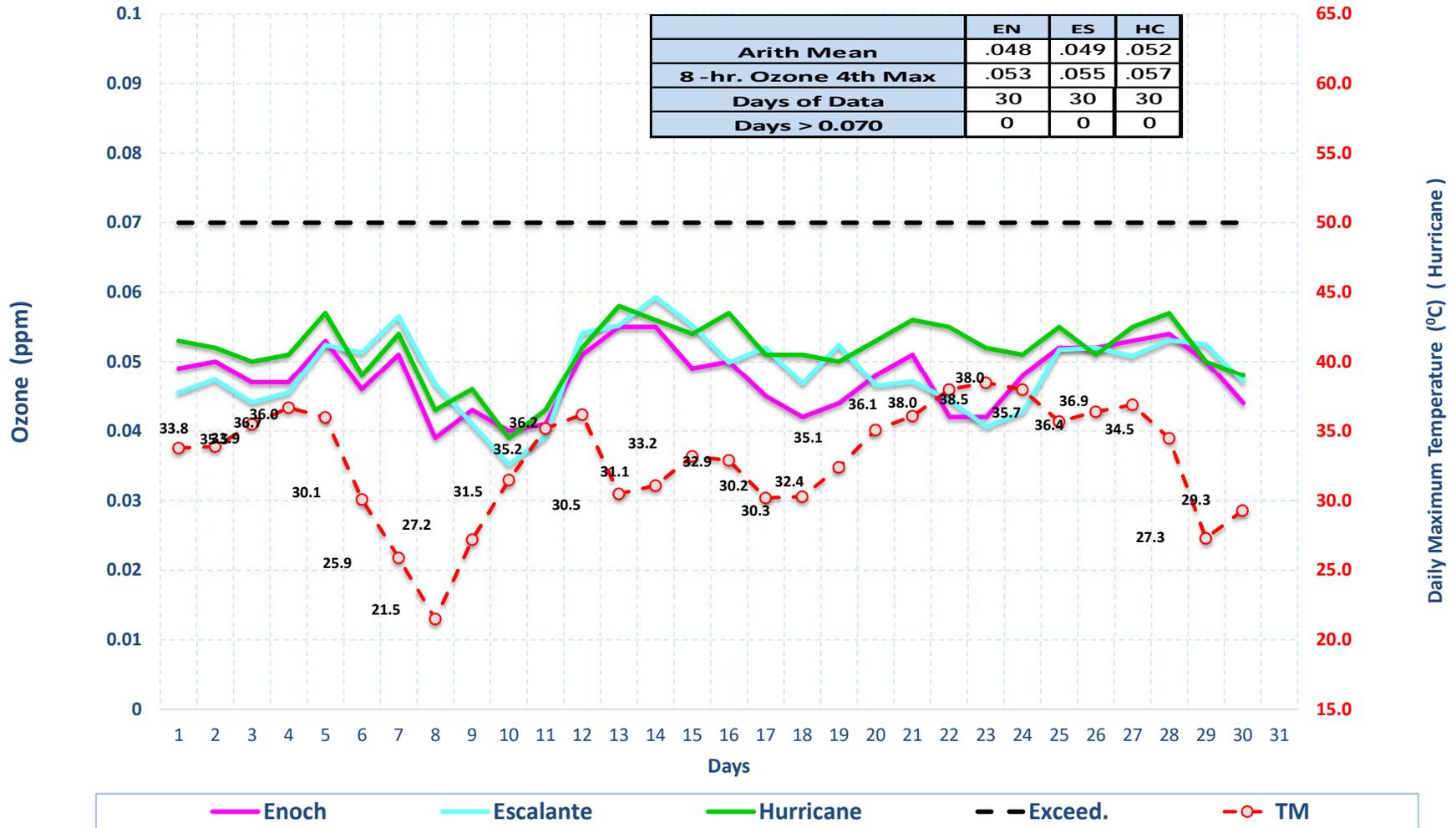
Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2020



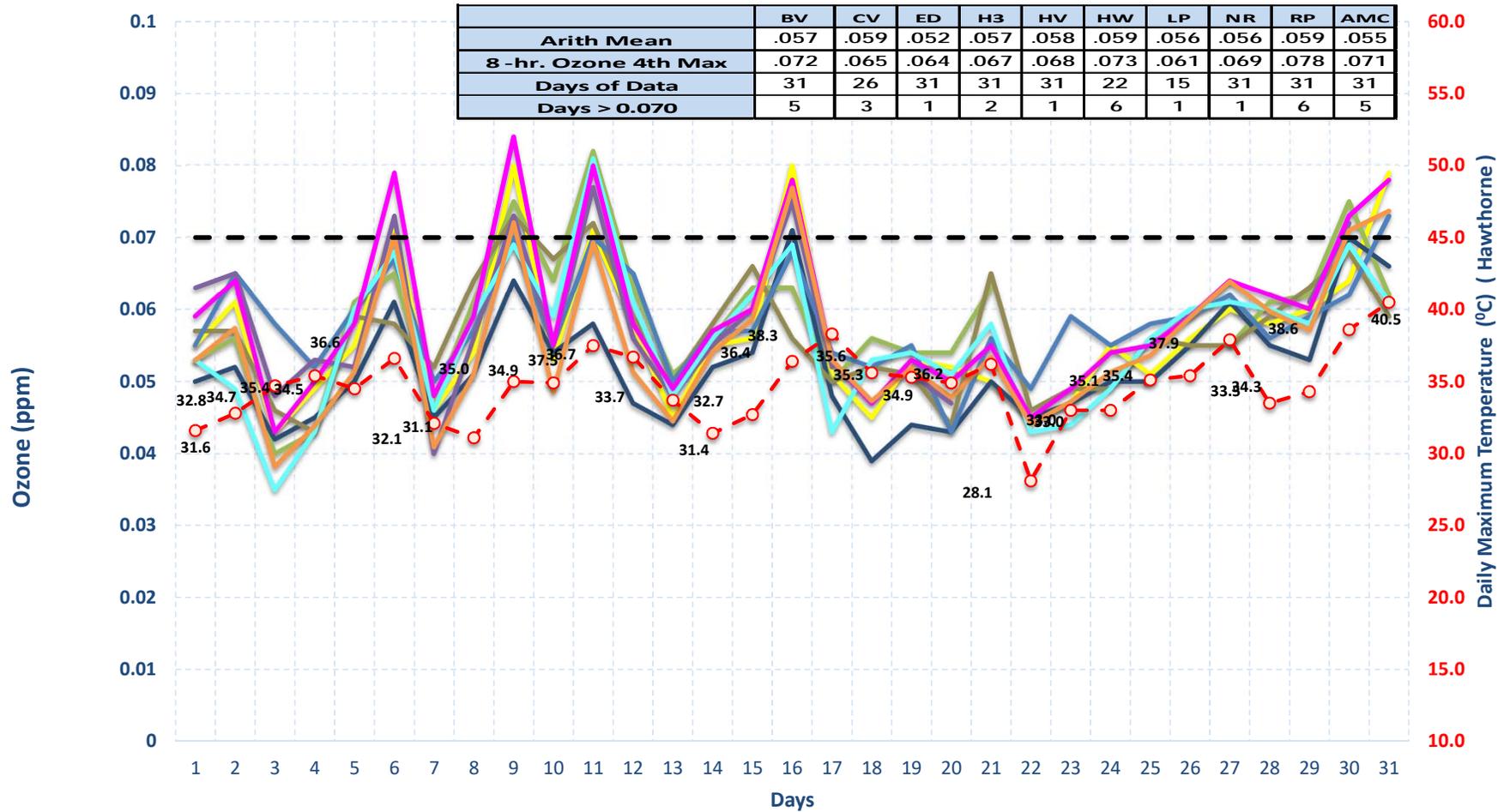
Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2020



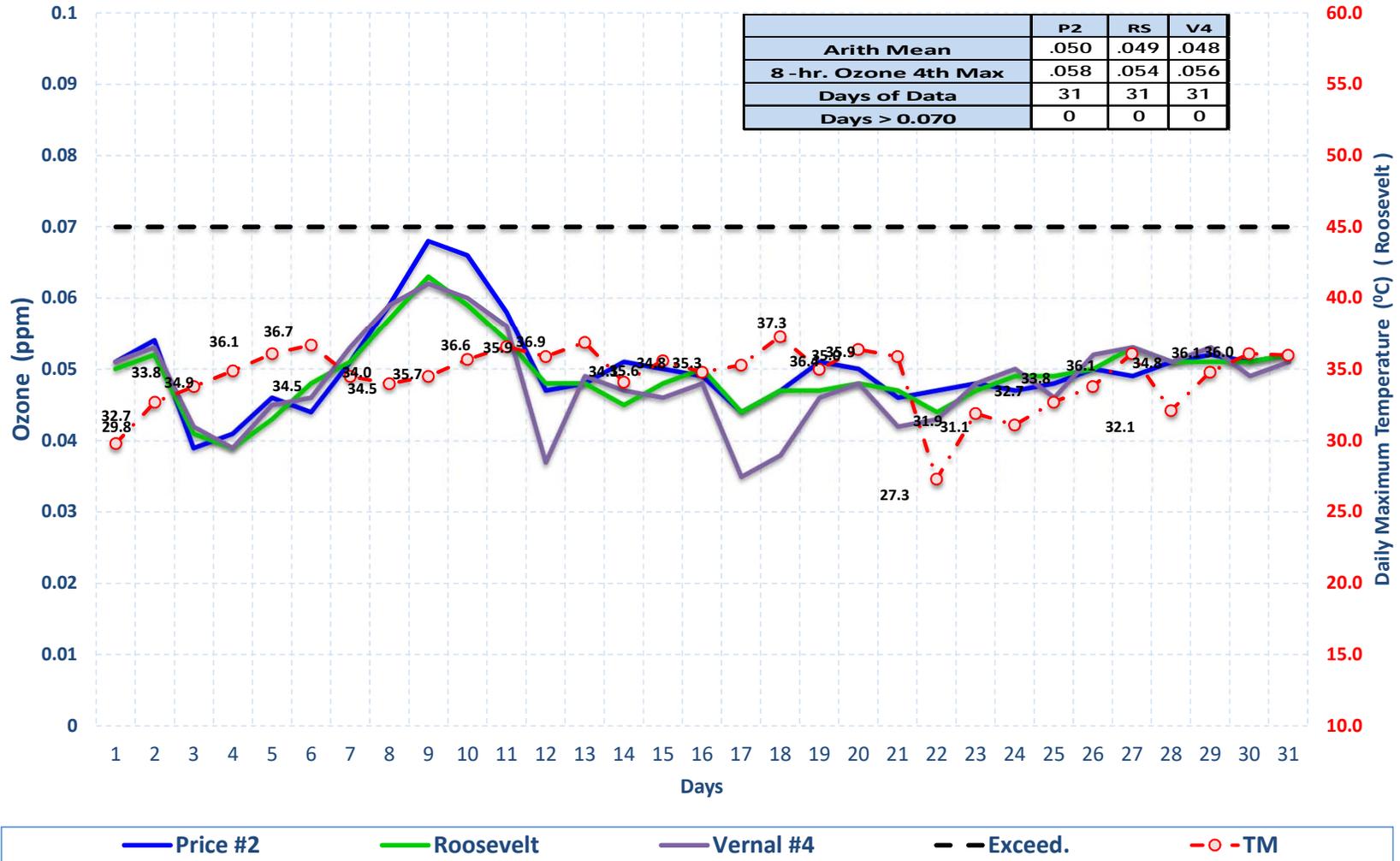
Highest 8-hr Ozone Concentration & Daily Maximum Temperature June 2020



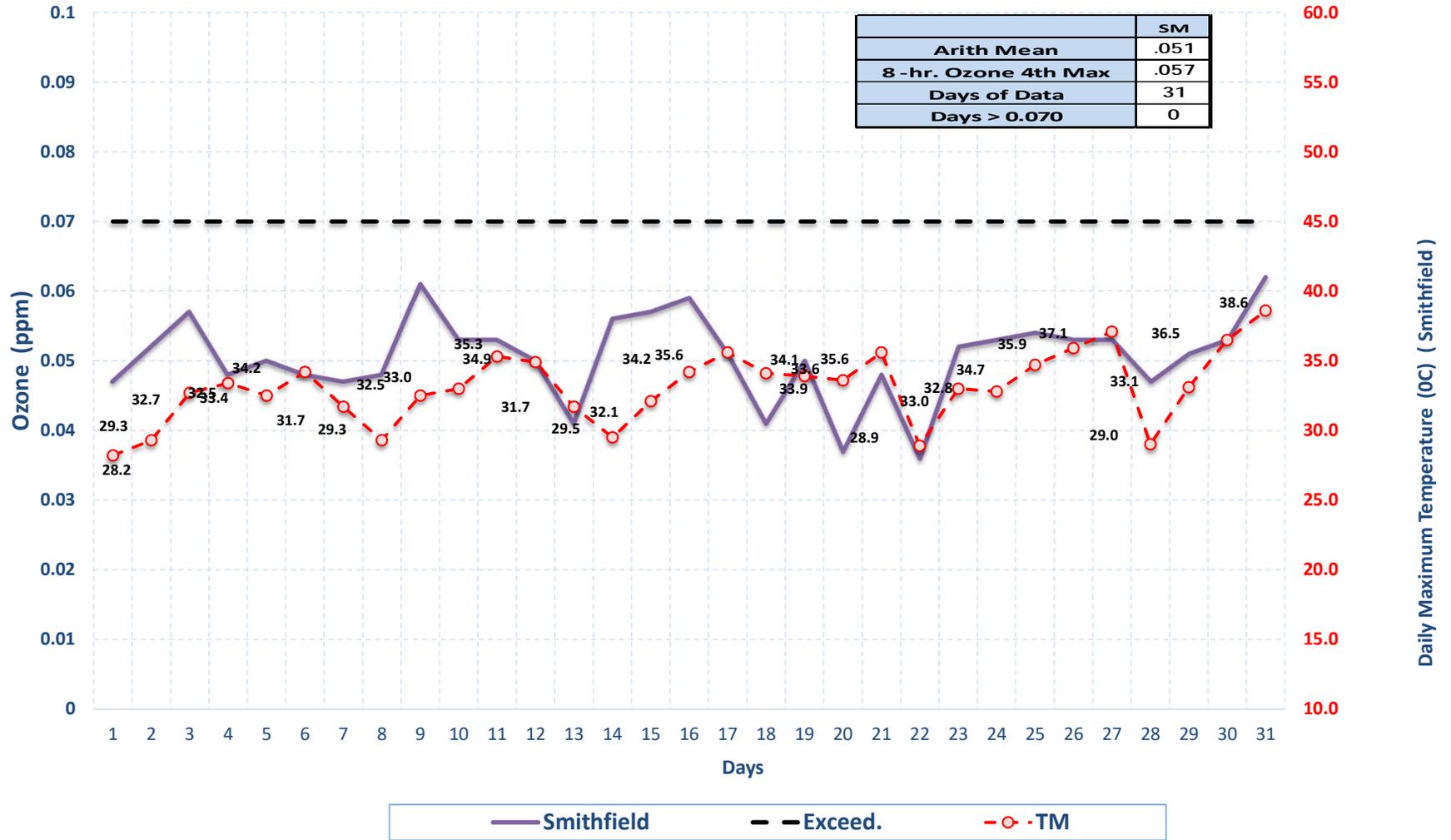
Highest 8-hr Ozone Concentration & Daily Maximum Temperature July 2020



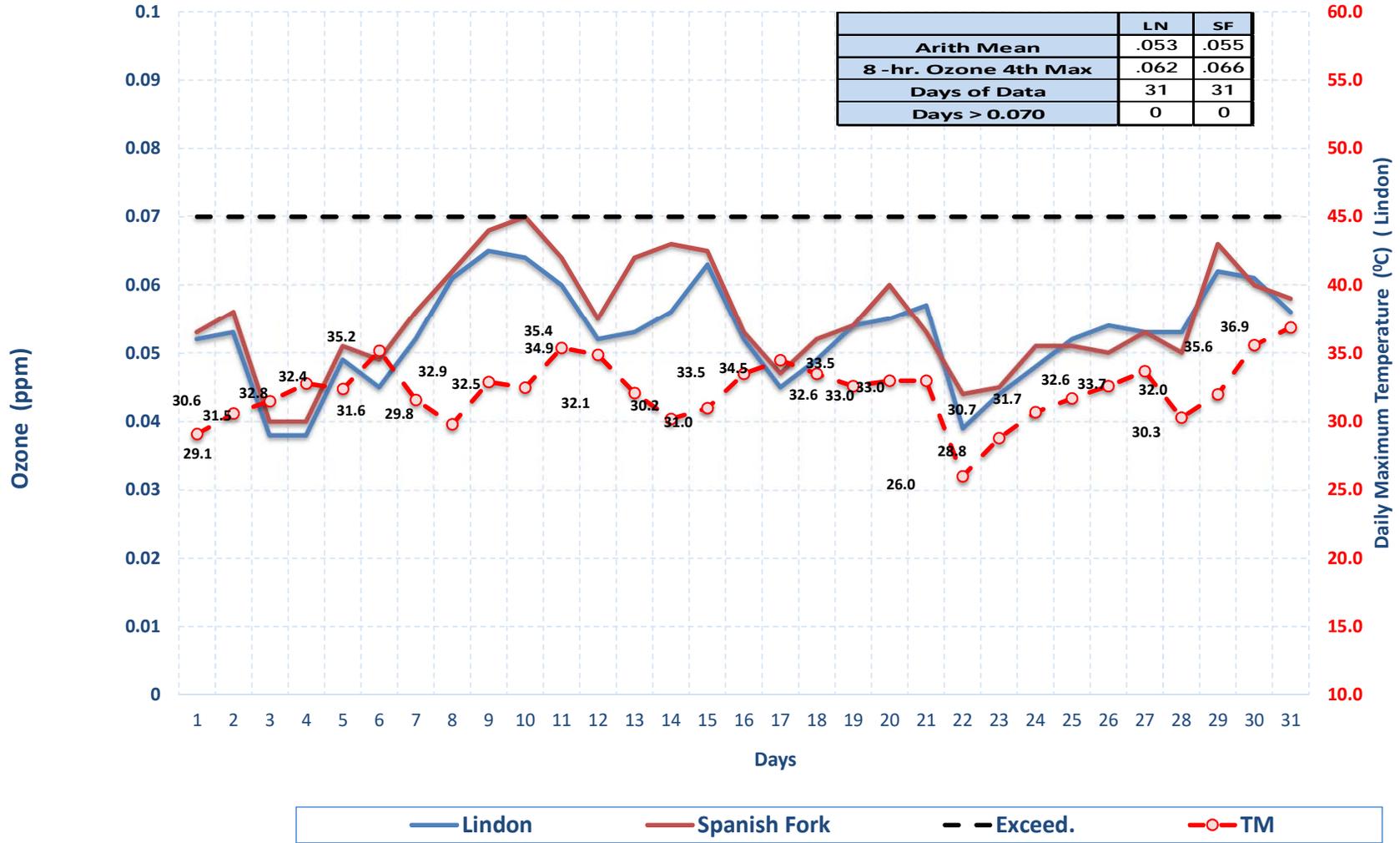
Highest 8-hr Ozone Concentration & Daily Maximum Temperature July 2020



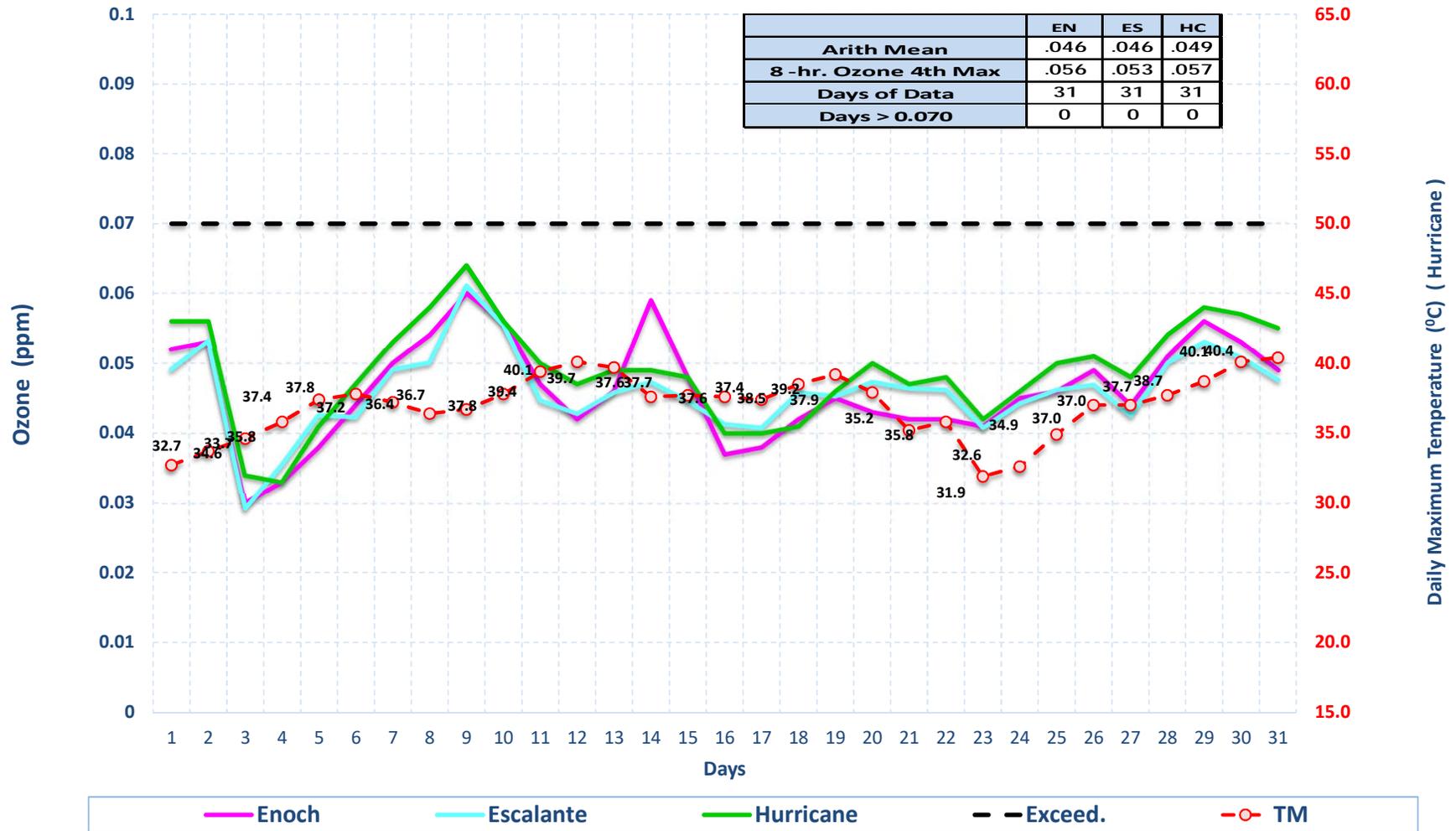
Highest 8-hr Ozone Concentration & Daily Maximum Temperature July 2020



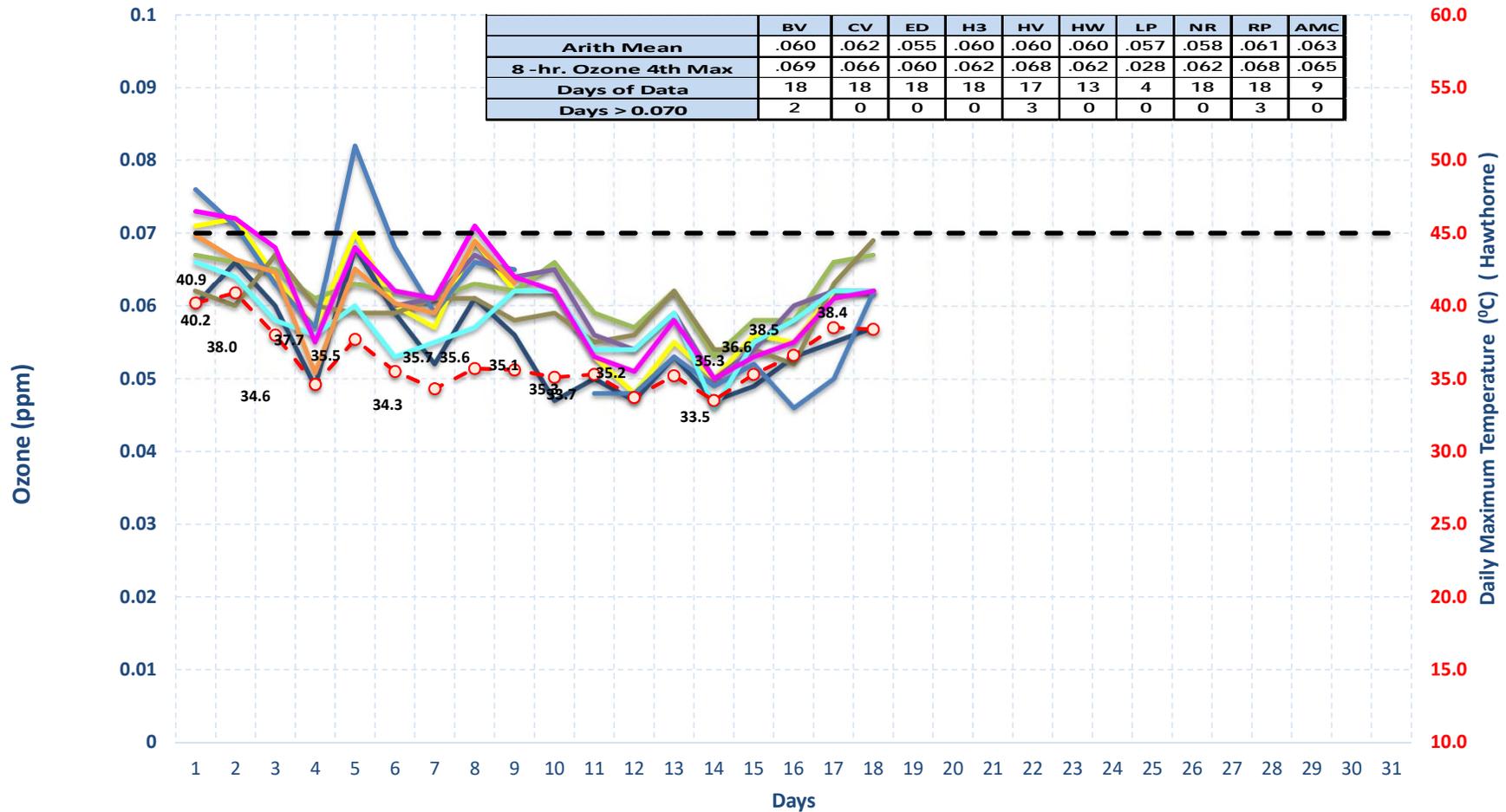
Highest 8-hr Ozone Concentration & Daily Maximum Temperature July 2020



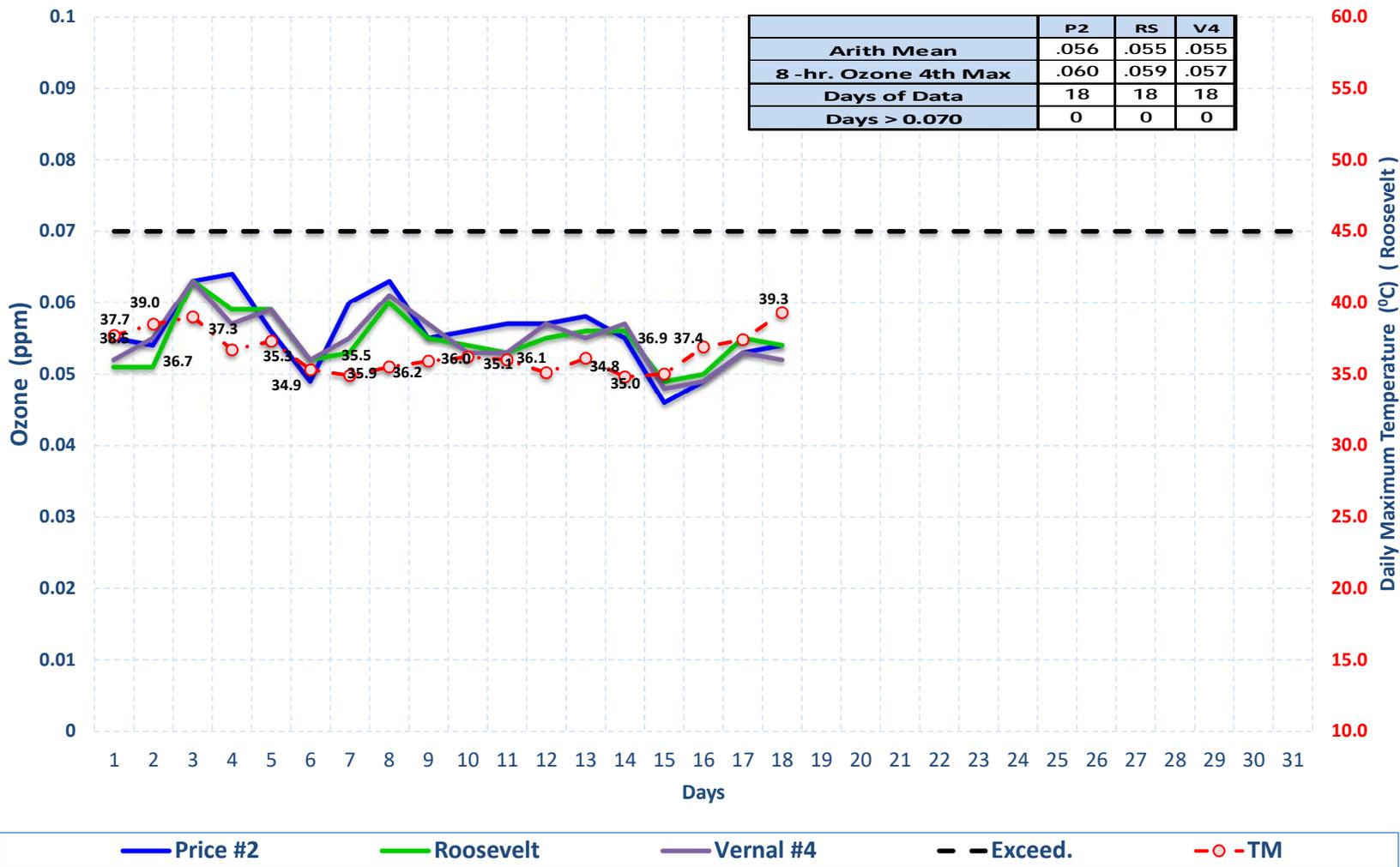
Highest 8-hr Ozone Concentration & Daily Maximum Temperature July 2020



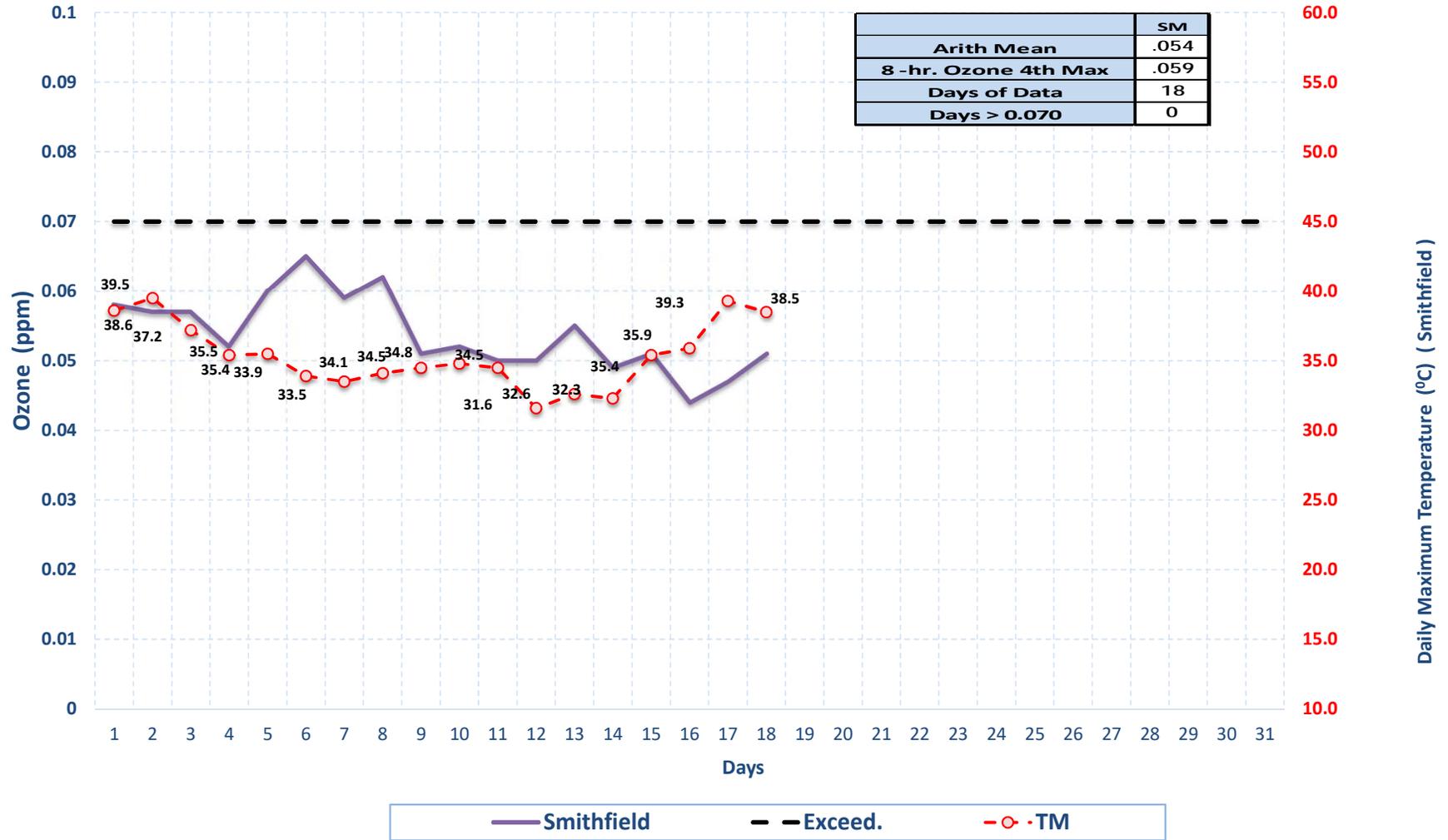
Highest 8-hr Ozone Concentration & Daily Maximum Temperature Aug 2020



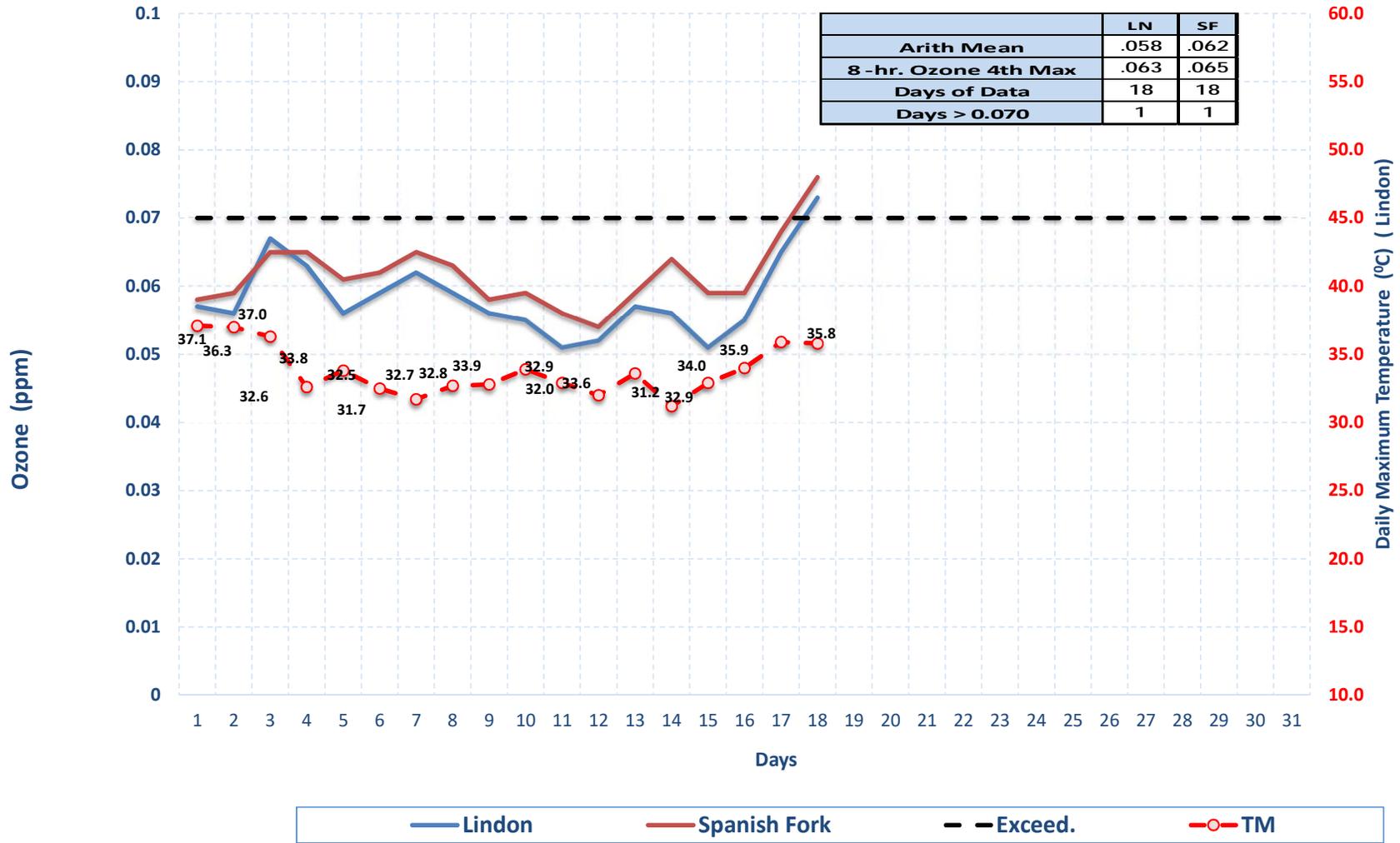
Highest 8-hr Ozone Concentration & Daily Maximum Temperature Aug 2020



Highest 8-hr Ozone Concentration & Daily Maximum Temperature Aug 2020



Highest 8-hr Ozone Concentration & Daily Maximum Temperature Aug 2020



Highest 8-hr Ozone Concentration & Daily Maximum Temperature Aug 2020

