



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

Air Quality Board
Stephen C. Sands II, *Chair*
Kerry Kelly, *Vice-Chair*
Tammie G. Lucero
Erin Mendenhall
Robert Paine III
Amanda Smith
Michael Smith
Karma M. Thomson
Kathy Van Dame
Bryce C. Bird,
Executive Secretary

DAQ-001-15a

UTAH AIR QUALITY BOARD MEETING

FINAL AGENDA

Wednesday, February 4, 2015 - 1:30 p.m.
195 North 1950 West, Room 1015
Salt Lake City, Utah 84116

- I. Call-to-Order
- II. Date of the Next Air Quality Board Meeting: March 4, 2015
- III. Approval of the Minutes for December 3, 2014, Board Meeting.
- IV. Final Adoption: Amend R307-401-19. General Approval Order. Presented by Mark Berger.
- V. Five-Year Reviews: R307-103, R307-165, R307-201 through R307-207, R307-305 through R307-307, R307-309, R307-310, R307-841, and R307-842. Presented by Mark Berger.
- VI. Informational Items.
 - A. Mountain View Corridor Air Working Group Update. Presented by Cameron Cova.
 - B. Request for Rulemaking for Ultra-Low NOx Water Heaters. Presented by Envision Utah.
 - C. Comments on Utah's Regional Haze Re-Proposal. Presented by Healthy Environment Alliance of Utah and the National Parks Conservation Association.
 - D. Air Toxics. Presented by Robert Ford.
 - E. Compliance. Presented by Jay Morris and Harold Burge.
 - F. Monitoring. Presented by Kimberly Kreykes.
 - G. Other Items to be Brought Before the Board.

In compliance with the American with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Dana Powers, Office of Human Resources at (801) 536-4413 (TDD 536-4414).

ITEM 3



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UTAH AIR QUALITY BOARD MEETING
December 3, 2014 – 1:30 p.m.
195 North 1950 West, Room 1015
Salt Lake City, Utah 84116

DRAFT MINUTES

I. Call-to-Order

Steve Sands called the meeting to order at 1:31 p.m.

Board members present: Kathy Van Dame, Steve Sands, Robert Paine, Tammie Lucero, Erin Mendenhall, Amanda Smith, and Kerry Kelly

Excused: Michael Smith and Karma Thomson

Executive Secretary: Bryce Bird

II. Date of the Next Air Quality Board Meeting: February 4, 2015

Currently there are no action items to be presented to the Board in January. The next Board meeting will be February 4, 2015.

III. Approval of the Minutes for October 1, 2014, Board Meeting.

Mr. Sands made a correction on page 5. In the bolded agenda title "Best Available Control Technology" should be corrected to "Best Available Retrofit Technology."

- Erin Mendenhall motioned the Board approve the minutes as amended. Tammie Lucero seconded. The Board approved unanimously.

IV. Final Adoption: Amend R307-121. General Requirements: Clean Air and Efficient Vehicle Tax Credit. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated this proposal to align R307-121 with revisions made to the statutes that govern the clean fuel tax credit has gone through a 30-day public comment period, during which no comments were received and no hearing was requested. Staff recommends the Board adopt R307-121 as proposed.

- Robert Paine moved for final adoption to amend R307-121, General Requirements, Clean Air and Efficient Vehicle Tax Credit. Erin Mendenhall seconded. The Board approved unanimously.

V. Final Adoption: New Rule R307-125. Clean Air Retrofit, Replacement, and Off-Road Technology Program. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated this proposal which specifies the requirements and procedures for the Clean Air Retrofit, Replacement, and Off-Road Technology (CARROT) Program has gone through a 30-day public comment period. During the public comment period one comment was received in support of the rule and no hearing was requested. Staff recommends the Board adopt R307-125, Clean Air Retrofit, Replacement, and Off-Road Technology Program, as proposed.

- Kerry Kelly moved that the Board adopt new rule R307-125, Clean Air Retrofit, Replacement, and Off-Road Technology Program. Tammie Lucero seconded. The Board approved unanimously.

VI. Final Adoption: Amend R307-302. Solid Fuel Burning Devices in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah, and Weber Counties. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated the public comment period to receive comments to expand the rule to include all solid fuel burning sources and re-open the sole source registry was held from October 1 to October 31, 2014. During the public comment period several comments were received. As a result of those comments, staff is recommending further changes to what was originally proposed. Those changes include modifying the definition of “solid fuel burning device” to clarify that the rule applies to solid fuel burning in fireplaces, wood stoves and boilers; clarifying that the rule does not apply to sources subject to an approval order issued under permitting rule R307-401; clarifying that the rule applies to solid fuel burning devices used in residential, commercial, institutional and industrial facilities and associated outbuildings used to provide comfort heating; including a wood burning exemption for elevations above 7,000 feet; and including an exemption for firefighting training equipment. Staff recommends the Board adopt R307-302, Solid Fuel Burning Devices in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah, and Weber Counties, as amended.

In discussion, staff explained that initially in the rule was the option for the transfer of a residential phase 2 certified stoves could remain intact as long as they weren’t removed or were part of a real estate transaction; this provision was not included for industrial and institutional sources. In reference to a study done by Whiteman and Horel at the University of Utah on persistent cold-air pool, it is suggested that it would be a good idea for staff to see if the pollutants from above 7,000 feet, as is mentioned in the study, are contributing to air pollution as an inversion sets up. It is also suggested that whatever DAQ can do to get the word out that when there is a ban on wood burning that it covers all wood burning sources, as there seems to be confusion by the public on what is allowed.

With regards to discussion on reopening the sole source registry and how the marketing will be handled and the availability of any funding , staff explained that currently one-time funding was granted by the Legislature at the last session and any funding not expended this year will lapse. One of the reasons of reopening the registry is that should the Legislature fund additional resources for home conversions that then other people would be able to take advantage of that program. The end goal would be to make sure we capture all of the people that could be eligible and not to get

more people on the registry so they are allowed to burn on no burn days. The focus is making sure we use a resource that has been granted by the Legislature to its best ability to address the situation of wood burning.

- Kathy Van Dame moved that the Board approve final adoption to amend R307-302, Solid Fuel Burning Devices in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah, and Weber Counties. Erin Mendenhall seconded. The Board approved unanimously.

VII. Final Adoption: Repeal and Replace SIP Subsection IX.A.21: Control Measures for Area and Point Sources. Fine Particulate Matter. PM_{2.5} SIP for the Salt Lake City, UT Nonattainment Area. Presented by Bill Reiss.

Bill Reiss, Environmental Engineer at DAQ, stated that the three State Implementation Plans (SIPs) for the Board's consideration address the particulate matter (PM) specific planning requirements of Subpart 4 as well as the more general nonattainment planning requirements of Subpart 1. The Logan SIP shows attainment of the 24 hour standard in 2015 and the Salt Lake and Provo SIPs show that attainment by 2015 is impracticable. The Salt Lake and Provo SIPs also include a quick cleanup regarding the emission limits section. Even with the revisions, these three SIPs are fundamentally no different than what was previously adopted, especially with regard to the control strategies. The comment period ran through the month of October 2014 and the summaries and responses to the comments were made available. As a result of the comments some changes were made. Mr. Reiss commented that some changes involved changes to the mobile source emissions numbers, tables were corrected due to a reporting errors where emissions for reasonable further progress (RFP) were reported, RFP numbers were revised to consider some of the reasonable available control technology (RACT) implementation dates for the point sources, clarifying language was added in some spots, under the contingency measures in Section 9.2 some trigger language was added at the request of EPA, and changes made to the emissions limit section in Part H were also addressed.

In response to questions, Mr. Reiss explained that for moderate nonattainment areas such as ours the planning requirements allow for two types of SIPs to be constructed. The Logan SIP is a plan that demonstrates attainment whereas the Salt Lake and Provo SIPs are of the other construction. In EPA's comments he believes EPA looked at the Clean Air Act (CAA) as saying that for plans that demonstrate attainment the RFP requirement in the general section of Section 172 Subpart 1 is linked to some more specific milestone requirements of Section 189 in Subpart 4. DAQ does not agree with EPA and have found another instance where another region came up against this rather unique moderate area planning requirement. This other region read the CAA the same as DAQ on this issue, where they said you need to go back to Subpart 1 to address the RFP criteria. Staff is comfortable in saying the plan meets the requirements of Subpart 4, is approvable, and it indicates continued progress towards attaining the National Ambient Air Quality Standards. Mr. Reiss continued that the change in mobile source emissions for direct PM_{2.5} on Table 4 was due to an addition error in adding up all the various pieces that collectively make up the category called direct PM. Furthermore, EPA does allow states to pre-implement contingency measures, such as the seasonal solid fuel burning ban being proposed to the Board, and they would give credit for such measures. In closing, it was explained that if there was a modification in an approval order for a point source it would not come before the Board but if the item was in the SIP it would come before the Board as a SIP revision.

- Kathy Van Dame motioned for final adoption to repeal and replace SIP Subsection IX.A.21, Control Measures for Area and Point Sources, Fine Particulate Matter, PM_{2.5}

SIP for the Salt Lake City, UT Nonattainment Area. Robert Paine seconded. The Board approved unanimously.

VIII. Final Adoption: Repeal and Replace SIP Subsection IX.A.22: Control Measures for Area and Point Sources, Fine Particulate Matter, PM2.5 SIP for the Provo, UT Nonattainment Area. Presented by Bill Reiss.

Bill Reiss, Environmental Engineer at DAQ, previously combined the introduction on what is common to the three SIPs being presented to the Board today. For this item Mr. Reiss pointed out three revisions specific to the Provo SIP. A typographical error was corrected in Table 4.2 and on pages 52 and 62 the Salt Lake SIP was incorrectly referenced where it should have been referenced for Utah County.

- Kerry Kelly moved that the Board adopt the repeal and replace of SIP Subsection IX.A.22, Control Measures for Area and Point Sources, Fine Particulate Matter, PM2.5 SIP for the Provo, Utah Nonattainment Area as amended today. Kathy Van Dame seconded. The Board approved unanimously.

IX. Final Adoption: Repeal and Replace SIP Subsection IX.A.23: Control Measures for Area and Point Sources, Fine Particulate Matter, PM2.5 SIP for Logan, UT-ID Nonattainment Area. Presented by Bill Reiss.

Bill Reiss, Environmental Engineer at DAQ, previously combined the introduction on what is common to the three SIPs being presented to the Board today. For this item Mr. Reiss pointed out two revisions specific to the Logan SIP. On page 60 a digit was added to the report for better clarification and on Table 7.1 page 64 an additional note regarding the calculation of mobile source emissions was included.

- Kathy Van Dame moved for final adoption to repeal and replace SIP Subsection IX.A.23, Control Measures for Area and Point Sources, Fine Particulate Matter, PM2.5 SIP for Logan, UT-ID Nonattainment Area. Erin Mendenhall seconded. The Board approved unanimously.

X. Final Adoption: Amend SIP Subsections IX.H.11, 12, and 13. Control Measures for Area and Point Sources, Emission Limits and Operating Practices, PM2.5 Requirements. Presented by Bill Reiss.

Bill Reiss, Environmental Engineer at DAQ, stated that Part H of the SIP includes the emissions limits, operating practices, and the schedules for implementation. Subsection 11 applies generally to all of the listed sources, Subsection 12 applies to the listed sources in the Salt Lake nonattainment area, and Subsection 13 applies to the listed sources in the Provo nonattainment area. There were no sources for the Logan area. Part H as proposed is substantially the same as what had previously been adopted by the Board in January 2014 with two notable exceptions. First, staff revisited the schedules for RACT implementation by the point sources to make sure that the measures are implemented as expeditiously as practicable. Second, staff evaluated the startup and shut down situation for all of the RACT sources and revised Part H accordingly. The SIP was proposed in September 2014 with comments collected through October 2014. Any changes that were made in Part H is a result of comments received.

- Erin Mendenhall moved for final adoption to amend SIP Subsections IX.H.11, 12, and 13, Control Measures for Area and Point Sources, Emission Limits and Operating Practices, PM2.5 Requirements. Tammie Lucero seconded. The Board approved unanimously.

XI. Final Adoption: Amend R307-110-10. Section IX, Control Measures for Area and Point Sources, Part A, Fine Particulate Matter; and Amend R307-110-17. Section IX, Control Measures for Area and Point Sources, Part H, Emissions Limits. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated that since the SIPs were adopted by the Board, R307-110-10 and R307-110-17 need to be incorporated into the administrative rules so that a complete SIP package can be submitted. These rules went out for public comment simultaneously with SIPs. No comments were received during the comment period or during the hearing regarding incorporating the new SIP sections into the rules. Staff recommends the Board adopt R307-110-10 and R307-110-17 as proposed.

- Robert Paine moved for final adoption to amend R307-110-10, Section IX, Control Measures for Area and Point Sources, Part A, Fine Particulate Matter; and amend R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H, Emissions Limits. Kathy Van Dame seconded. The Board approved unanimously.

XII. Stericycle, Incorporated Administrative Settlement Order. Presented by Harold Burge.

Harold Burge, Major Source Compliance Section Manager at DAQ, explained that under Utah Code annotated 19.2.104 any settlement exceeding \$25,000 requires Board approval. This administrative settlement order would avoid further legal delays in resolving Stericycle Incorporated's (Stericycle) notice of violation (NOV) and ensure that operations at the North Salt Lake facility cease as quickly as possible. Stericycle operates a medical waste incinerator in North Salt Lake. On May 28, 2013, DAQ issued them a NOV and then issued an amended NOV on August 28, 2013, which superseded the original NOV. All of this was done after Stericycle had demonstrated a return to compliance with all of their emission limits. In response to the NOV, Stericycle made a request for agency action on September 27, 2013, requesting an evidentiary hearing challenging the amended NOV. On April 24, 2014, DEQ's Executive Director appointed an administrative law judge to conduct a hearing to adjudicate the merits of the amended NOV and request for agency action. DAQ and Stericycle engaged in a series of settlement negotiations. Today's administrative settlement order is a result of those negotiations with the major provision being a total penalty of \$2,322,536.00. Stericycle would pay \$1,161,268.00 within 30 days of the effective date of the administrative settlement order. In lieu of paying the remaining half of the total penalty Stericycle would receive a supplement environmental project credit of \$1,161,268.00 for relocating voluntarily to Tooele County and permanently ceasing its operations of its North Salt Lake facility within three years of obtaining all necessary permits and approvals for the new facility. Stericycle's Title V permits and approval orders for the current North Salt Lake facility would be voided. The new facility will have better control technology and will be located away from population centers. Staff recommends the Board approve the penalty amount and the administrative settlement order.

In discussion, Mr. Burge explained that the first half of the penalty goes into the State's general fund to which the Legislature will decide how the funds are dispersed. An explanation was given on the penalty policy and how the dollar amount was calculated. Under the Title V permit they have to submit an annual compliance certification which identifies each and every required condition and whether or not they were in compliance with those requirements. Semi-annually they submit a monitoring report which states any deviations they may have had in the past six

months with any of their permit conditions. Their emission limits are taken straight from the federal rule for medical waste incinerators, Subpart C.E. In order for Stericycle to construct, they will need to obtain an approval order and Title V permit from DAQ. They will also need permits from the Division of Solid and Hazardous Waste, local permits for planning and zoning purposes, conditional use permits, and the Governor must sign off on their request to relocate. There are a lot of variables involved in their relocation to Tooele County. In regards to the reporting dates the company must follow as listed in the settlement order and any other updates, DAQ will maintain a Stericycle specific web page on the DEQ source page for status updates. It was also recommended that a Listserv be created for subscription by interested parties.

Public comment was introduced.

Alicia Connell commented that the Utah Physicians for Healthy Environment, Utah Moms for Clean Air, and Communities for Clean Air are some organizations that have come together in an effort to eliminate Stericycle's medical waste incinerator. While they are relieved to finally see a definitive action taken against Stericycle by the state they are disappointed that the company will still be allowed to operate for at least three more years and perhaps up to five years or more in North Salt Lake. They believe the DAQ has made the best of a bad situation and they urge the DAQ to remain diligent to making this transition period as short as possible and to continue enhanced monitoring of the company's ongoing emissions in order to protect the health of North Salt Lake residences. The evidence is overwhelming that incineration of medical waste is unnecessary and the worst possible way to manage this waste stream and that approving a new medical waste incinerator in a more remote location is still a setback for public health protection. They will continue work in opposing these types of facilities and urging medical facilities to find new and better ways of addressing their waste stream. Furthermore, they believe there is a recent emergence of stronger evidence that criminal activity was tolerated if not mandated by Stericycle management that is not addressed by this agreement. They expect to see the Attorney General's Office to continue to pursue this evidence and take the action that is appropriate upon confirmation of these allegations which could very well be the immediate shuttering of the Stericycle incinerator.

Cindy King representing the Utah Chapter of the Sierra Club commented that the settlement agreement is the largest that the division has sought and questions whether Stericycle considers this part of a normal operation expenses or as a turn of wrongdoing. In either case Stericycle admits no culpability. She does not understand why DAQ did not request alternative technologies to incineration from the company but is instead allowing Stericycle to move to a community which has more hazardous facilities than any other community in the state of Utah. DAQ only requested best available technology or newer technology to an antiquated technology that causes harm to both the environment and human health. Ms. King encourages a full public participation in any and all permits for Stericycle and that public hearings be required. She encourages the DAQ to ensure that the Title V permits address startup, shut down, and malfunction plans, which the current Title V permit does not have. Such a section might have helped in preventing the concerns that are addressed in the settlement agreement as well as preventing numerous fires and the bypass stack shown by the various media outlets this past summer. She also mentioned there is a regulation to require a Tooele facility to have an environmental and public risk assessment completed, which the settlement agreement does not list, and Ms. King encourages all DEQ Divisions to work together to assure that this requirement be included.

- Kathy Van Dame motioned the Board approved the Stericycle, Incorporated Administrative Settlement Order. Kerry Kelly seconded. The Board approved unanimously.

XIII. Propose for Public Comment: Amend R307-120. General Requirements: Tax Exemption for Air Pollution Control Equipment. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated in the 2014 legislative session the statutes that govern the tax exemption for pollution control equipment was amended. The proposed changes to R107-120 align the rule with the new statute. Staff recommends the Board propose R307-120 for public comment.

Alan Humpherys, Minor New Source Review Section Manager at DAQ, explained that as defined in statute, a pollution control facility and a pollution control property are eligible for this credit. An example would be a bag house. Within 120 days of receipt of a completed application at DAQ, the permitting section at DAQ issues the certificate. If the application is not complete, the source is notified and any additional information is requested. After certification by DAQ is issued, it would be the Utah State Tax Commission that grants the tax credit.

- Robert Paine moved to propose for public comment to amend R307-120, General Requirements, Tax Exemption for Air Pollution Control Equipment. Kerry Kelly seconded. The Board approved unanimously.

XIV. Propose for Public Comment: Amend R307-302. Solid Fuel Burning Devices in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah, and Weber Counties. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, explained that the Governor's office requested staff to prepare a proposed rule that would implement a seasonal solid fuel burning ban within the PM_{2.5} nonattainment areas to help attain the PM_{2.5} standard. As currently proposed the seasonal ban would begin November 1 and extend through March 15. Staff is asking the Board to seek comment on 1) the appropriateness of having a single ban period applicable in all areas or if each area could have a different ban period, 2) the start and stop dates for the ban, and 3) if it would be appropriate to exempt a county from the seasonal ban. To facilitate public review and comment DAQ will hold seven public hearings, one in each nonattainment county. At each county hearing information will be provided that is applicable to that specific county to help facilitate public comment. Staff recommends the Board propose for public comment to amend R307-302, Solid Fuel Burning Devices in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah, and Weber Counties.

In discussion, it was commented from the Board of the need for a robust discussion on this issue and hopefully there will be creative ways to approach households that are not sole source where tickets and fines would be an undue burden. As DAQ interacts with individuals through the enforcement process that they will be advocates in connecting individuals with resources if they don't qualify for sole source state funding. Education will be a big part of this issue as we move forward to be more aggressive with restricting wood burning. Also, staff responded that with a total seasonal wood burning ban enforcement would be easier. The 100% compliance listed in the memorandum simulates a total ban for wood smoke. It does not include restaurants which are too small for the model to register.

Public comment was introduced.

Ingrid Griffiee from Utah Moms for Clean Air commented they fully support a wood burning ban and they look forward to conversation from the community on this issue. She suggested that wood burning fireplaces might be included into a program such as the CARROT program which allows

incentives for individuals to upgrade small equipment such as snow blowers to cleaner burning models. In addition, it might be helpful with compliance and enforcement if fuel for wood burning was not available for purchase in areas where the ban is being enforced, or at a minimum post signage near the products to educate the public about the ban.

Brian Moench from Utah Physicians for Healthy Environment commented that historically wood smoke has been looked at in terms of its harm to public health in how it affects the overall community PM_{2.5} levels which he feels is an inappropriate way of looking at the issue. There are unique chemical, mechanical, and biologic properties to wood smoke that make it probably the most toxic form of community air pollution there is because wood smoke in residential areas does not disperse well. We need to start thinking in terms of regulating wood smoke the same way we now regulate secondhand smoke.

John Mortensen representing Energy Distribution Systems commented on concerns on the proposal for an all-out ban on wood burning and to be asked to give 100% compliance to a complete burn ban is not reasonable. The wood stove industry has for many years invested a lot of time, money, and energy into building stoves that are a lot more efficient, cleaner burning, and meet or exceed EPA standards. Instead of an all-out ban, he feels that if there was an allowance for people who have invested in the newer technology to burn on non-red days that would encourage others to upgrade their appliances thereby achieving the goal in reducing particulate emissions.

- Erin Mendenhall motioned the Board propose for public comment to amend R307-302, Solid Fuel Burning Devices in Box Elder, Cache, Davis, Salt Lake, Tooele, Utah, and Weber Counties. Robert Paine seconded. The Board approved unanimously.

Board members were asked for volunteers who would act as hearing officers at each of scheduled public hearings. Kerry Kelly will be the hearing officer on January 14, 2015, at 4:00 p.m. in Tooele and on January 15, 2015, at 6:00 p.m. in Salt Lake City. Kathy Van Dame will be the hearing officer on January 20, 2015, at 11:30 a.m. in Brigham City and at 5:00 p.m. in Ogden; and on January 21, 2015, at 4:00 p.m. in Logan. Erin Mendenhall will be the hearing officer on January 28, 2015, at 10:00 a.m. in Farmington. Tammie Lucero will be the hearing officer on January 29, 2015, at 11:00 a.m. in Provo.

XV. Propose for Public Comment: New Rule R307-311. Utah County: Trading of Emission Budgets for Transportation Conformity. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated this rule is being proposed as a means to alleviate a problem of demonstrating conformity to the NO_x budget brought on by EPA's release of their new motor vehicle emissions simulator (MOVES) model. The new model replaces the previous model which was originally used to develop the NO_x budget in the 2002 PM₁₀ SIP. Metropolitan Planning Organizations (MPOs) must use the model as they prepare conformity demonstrations. The new MOVES model predicts much more NO_x from tailpipes than the previous version. This rule allows MPOs to apply a potential surplus from its budget for direct PM₁₀ to a commensurate shortfall in its budget for NO_x at a ratio of one to one. After taking comment and in discussion with EPA Region 8, staff has determined this rule is a better solution than the previous proposed amendments to the Utah County PM₁₀ SIP made in September 2014 by the Board. With the proposal of this new rule the proposed changes to the PM₁₀ SIP would no longer be needed. Staff recommends the Board propose new rule R307-311 for public comment.

Susan Hardy from the Utah County MPO encouraged the Board to propose this new rule for public comment and later for adoption. This will allow them to deal with the problem of the disparity

between the previous model and EPA's latest version which they are required to use for conformity.

- Robert Paine motion the Board propose for public comment the new rule R307-311, Utah County, Trading of Emission Budgets for Transportation Conformity. Kerry Kelly seconded. The Board approved unanimously.

XVI. Informational Items.

A. Environmental Protection Agency Clean Power Plan Briefing. Presented by Glade Sowards.

Glade Sowards, Environmental Scientist at DAQ, gave a brief summary of EPA's Clean Power Plan, or 111(d). Under Section 111 of the Clean Air Act, which is the new source performance standards, it lays out two distinct approaches for both new and existing sources. Section 111(b) is a federal program to address new sources by establishment of standards, whereas section 111(d) is a state-based program for existing sources. Under section 111(d) the EPA establishes guidelines and states then design programs and plans to fit into those guidelines to achieve the required reductions. Section 111(b) was initially proposed in April 2012 and was re-proposed in September 2013 which set separate standards for both coal and natural gas fired power plants. Section 111(d) was proposed in June 2014 and after including a supplemental to address plants located in Indian Country and in U.S. Territories it was proposed again in October 2014 and is projected to be finalized in June 2015. EPA identified best system of emission reduction (BSER) and states will make plans under 111(d) to achieve those reductions. Under 111(d) states can develop state-only or multi-state plans to meet their goals and also have the option to convert the rate-based goal to a mass-based goal. Also, states do not have to use EPA's BSER building blocks if they can identify other ways to meet the goals. The comment period was extended to December 1, 2014, with the Office of Energy Development office coordinating comments from Utah with input from several state agencies. Finally, the next steps will be to continue to communicate with EPA, other western states, and stakeholders. It is also clear that should the plan move forward we will have a stakeholder process to assist in plan development.

B. Air Toxics. Presented by Robert Ford.

C. Compliance. Presented by Jay Morris and Harold Burge.

D. Monitoring. Presented by Bo Call.

Bo Call, Air Monitoring Section Manager at DAQ, updated the Board on the monitoring graphs. He also updated the Board on the ozone standard that EPA recently proposed. As expected, a single level for the standard was not proposed but a range of 65 parts per billion (ppb) up to 70 ppb was proposed. It is proposed that Utah change from a seasonal operating state to a statewide year round state and also changes to the photochemical assessment monitoring system (PAMS) network requirements, which are currently required for only serious nonattainment ozone areas. Mr. Call also talked about the secondary standard, or the W126 standard, and what the levels should be. Once the new standard is published in the Federal Register, EPA will accept comments for 90 days with a proposal to be finalized October 2015.

E. Other Items to be Brought Before the Board.

Ms. Kelly announced to the Board there will be a joint workshop, Air Quality in Utah: Science for Solutions, on Tuesday, January 13, 2015, at the University of Utah Guesthouse from 8:00 a.m. to 2:00 p.m. The morning will be devoted to technical presentations and the afternoon to panel discussion with business leaders, health experts, DAQ staff, and Legislators.

Public comment was introduced.

John Woolsey addressed the Board on the Utah Department of Transportation's (UDOT) proposed speed limit increase along Wasatch Front urban corridors from 65 miles per hour to 70 miles per hour. House Bill 80 essentially gives UDOT permission to change a speed limit if they can show it can be efficiently done. In his research he does not find that air quality was taken into consideration and EPA's website suggests the faster we go the more emissions we are emitting. Mr. Woolsey would like to know if DAQ spoke with UDOT about mobile source emissions on this issue. Mr. Bird responded that DAQ has the opportunity to weigh in on legislative proposals and did so in this case by providing modeling looking at impacts of speed and emissions. In looking at several factors and the current fleet DAQ was able to adjust speed and found when a catalytic converter of a vehicle is up to operating temperature there is very little difference in the grams per mile of emissions of pollutants. The Legislature had this information as they made their deliberations and they ultimately decided to pass House Bill 80. At that point it becomes state law and our ability to interact on it is limited at that point. MPO's will also have to account for those speed limit changes as they make their plans. In closing, Mr. Woolsey stated that where you get the most mileage as far as combustion of a gallon of fuel is to slow down regardless of the speed limit.

Ms. Van Dame announced that the Chamber of Commerce is having their third annual Clean Air Summit on December 4, 2014, beginning at 8:00 a.m. at the Chamber offices in Salt Lake City. Alan Matheson and a number of panels will be discussion Utah's air quality plans.

Meeting adjourned at 4:03 p.m.

ITEM 4



State of Utah

GARY R. HERBERT
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SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-002-15

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Colleen Delaney, Environmental Scientist

DATE: January 20, 2015

SUBJECT: FINAL ADOPTION: Amend R307-401-19. General Approval Order.

On October 1, 2014, the Air Quality Board proposed amendments to R307-401-19, General Approval Order, to allow coverage under a general approval order if a demonstration of the impact of hazardous air pollutant emissions is completed that meets the requirements of R307-410-5(1)(c)(ii). A 30 day public comment period was held from November 1 through December 1, 2014. No public comments were received and a public hearing was not requested.

Staff Recommendation: Staff recommends the Board adopt R307-401-19 as proposed.

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

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

3 **R307-401-19. General Approval Order.**

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

8 (a) A major source or major modification as defined in R307-403,
9 R307-405, or R307-420 for each respective area is not eligible for
10 coverage under a general approval order.

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

13 (c) A source that is subject to the requirements of R307-410-4
14 is not eligible for coverage under a general approval order unless
15 a demonstration that meets the requirements of R307-410-4 was
16 conducted.

17 (d) A source that is subject to the requirements of
18 R307-410-5(1)(c)(ii) is not eligible for coverage under a general
19 approval order unless a demonstration that meets the requirements
20 of R307-410-5(1)(c)(ii) was conducted.

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

24 (2) A general approval order shall meet all applicable
25 requirements of R307-401-8.

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

29 (4) Application.

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

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

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

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

43 (5) Approval.

44 (a) The director will review the application and approve or
45 deny the request based on criteria specified in the general approval
46 order for that type of source. If approved, the director will issue
47 an authorization to the applicant to operate under the general approval
48 order.

49 (b) The public notice requirements in R307-401-7 do not apply
50 to the approval of an application to be covered under the general
51 approval order.

1 (c) The director will maintain a record of all stationary
2 sources that are covered by a specific general approval order and
3 this record will be available for public review.

4 (6) Exclusions and Revocation.

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

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

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

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

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

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

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

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

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

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

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

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

45 (8) Modifications at a source covered by a general approval order.
46 A source may make modifications only as authorized by the approved
47 general approval order. Modifications outside the scope authorized
48 by the approved general approval order shall require a new application
49 for either an individual approval order under R307-401-8 or a general
50 approval order under R307-401-19.

51

1 **KEY: air pollution, permits, approval orders, greenhouse gases**
2 **Date of Enactment or Last Substantive Amendment: 2015**
3 **Notice of Continuation: June 6, 2012**
4 **Authorizing, and Implemented or Interpreted Law: 19-2-104(3)(q);**
5 **19-2-108**

ITEM 5



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQ-003-15

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Mark Berger, Environmental Planning Consultant

DATE: January 20, 2015

SUBJECT: Five-Year Reviews: R307-103, R307-165, R307-201 through R307-207, R307-305 through R307-307, R307-309, R307-310, R307-841, and R307-842.

Utah Code Title 63G-3-305 requires each agency to review and justify each of its rules within five years of a rule's original effective date or within five years of the filing of the last five-year review. This review process is not a time to revise or amend the rules, but only to verify that the rule is still necessary and allowed under state and federal statute. As part of this process, we are required to identify any comments received during and since the last five-year review of each rule. This process is not the time to revisit those comments or to respond to them.

DAQ has completed five-year reviews for the following rules:

- R307-103. Administrative Procedures.
- R307-165. Emission Testing.
- R307-201. Emission Standards: General Emission Standards.
- R307-202. Emission Standards: General Burning.
- R307-203. Emission Standards: Sulfur Content of Fuels.
- R307-204. Emission Standards: Smoke Management.
- R307-205. Emission Standards: Fugitive Emissions and Fugitive Dust.
- R307-206. Emission Standards: Abrasive Blasting.
- R307-207. Emission Standards: Residential Fireplaces and Stoves.
- R307-305. Nonattainment and Maintenance Areas for PM10: Emission Standards.
- R307-306. PM10 Nonattainment and Maintenance Areas: Abrasive Blasting.
- R307-307. Road Salting and Sanding.
- R307-309. Nonattainment and Maintenance Areas for PM10 and PM2.5: Fugitive Emissions and Fugitive Dust.

R307-310. Salt Lake County: Trading of Emission Budgets for Transportation Conformity.

R307-841. Residential Property and Child Occupied Facility Renovation.

R307-842. Lead-Based Paint Activities.

The results of these reviews are found in the attached Five-Year Notice of Review and Statement of Continuation forms.

Staff Recommendation: Staff recommends the Board continue these rules by approving the attached forms to be filed with the Division of Administrative Rules.

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

2 **R307-103. Administrative Procedures.**

3 **R307-103-1. Administrative Procedures.**

4 Administrative proceedings under Utah Air Quality Act are
5 governed by Rule R305-7.

6

7 **KEY: air pollution, administrative procedures, administrative**
8 **proceedings, hearings**

9 **Date of Enactment or Last Substantive Amendment: August 29,**
10 **2011**

11 **Notice of Continuation: March 4, 2010**

12 **Authorizing, and Implemented or Interpreted Law: 63G-4**

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: _____ Date filed: _____
 State Admin Rule Filing Key: 155774
 Utah Admin. Code ref. (R no.): R307-103

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality
 Room no.: Fourth Floor
 Building:
 Street address 1: 195 N 1950 W
 Street address 2:
 City, state, zip: SALT LAKE CITY UT 84116-3085
 Mailing address 1: PO BOX 144820
 Mailing address 2:
 City, state, zip: SALT LAKE CITY UT 84114-4820

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Mark Berger	801-536-4000	801-536-0085	mberger@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
 Administrative Procedures

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
 The Utah Administrative Procedures Act (UAPA), Subsection 63G-4-102(6), allows state administrative agencies to enact rules "affecting or governing adjudicative proceedings," so long as the rules are adopted according to the Utah Administrative Rulemaking Act and conform to the requirements of UAPA. Rule R307-103 establishes administrative procedures that are tailored to DAQ's administrative needs and the needs of those affected by the agency's actions. The procedures in Rule R307-103 ensure consistency in the Division's administrative actions and give constitutional due process and fair notice to the regulated community and the public of their and DAQ's roles and responsibilities in the agency's actions.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
 R307-103 has been amended three times since the last 5-year review (DAR# 34682, 34689, and 38252). Only one comment was received; however, the comment did not directly address the proposed amendment to R307-103, but rather were addressed to the Department rule R305-6 (Now numbered R305-7).

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in

opposition to the rule, if any:

Rule R307-103 sets forth administrative processes for the Division of Air Quality and the regulated community to ensure constitutional due process for the regulated community and the public, and should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, hearings, administrative procedures

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

1 R307. Environmental Quality, Air Quality.**2 R307-165. Emission Testing.****3 R307-165-1. Purpose.**

4 R307-165 establishes the frequency of emission testing
5 requirements for all areas in the state.
6

7 R307-165-2. Testing Every 5 Years.

8 Emission testing is required at least once every five years of
9 all sources with established emission limitations specified in
10 approval orders issued under R307-401 or in section IX, Part H of
11 the Utah state implementation plan. In addition, if the director has
12 reason to believe that an applicable emission limitation is being
13 exceeded, the director may require the owner or operator to perform
14 such emission testing as is necessary to determine actual compliance
15 status. Sources approved in accordance with R307-401 will be tested
16 within six months of start-up. The Board may grant exceptions to the
17 mandatory testing requirements of R307-165-2 that are consistent with
18 the purposes of R307.
19

20 R307-165-3. Notification of DAQ.

21 At least 30 days prior to conducting any emission testing required
22 under any part of R307, the owner or operator shall notify the director
23 of the date, time and place of such testing and, if determined necessary
24 by the director, the owner or operator shall attend a pretest
25 conference.
26

27 R307-165-4. Test Conditions.

28 All tests shall be conducted while the source is operating at
29 the maximum production or combustion rate at which such source will
30 be operated. During the tests, the source shall burn fuels or
31 combinations of fuels, use raw materials, and maintain process
32 conditions representative of normal operations. In addition, the
33 source shall operate under such other relevant conditions as the
34 director shall specify.
35

36 R307-165-5. Rejection of Test Results.

37 The director may reject emissions test data if they are determined
38 to be incomplete, inadequate, not representative of operating
39 conditions specified for the test, or if the director was not provided
40 an opportunity to have an observer present at the test.
41

42 **KEY: air pollution, emission testing**

43 **Date of Enactment or Last Substantive Amendment: September 2, 2005**

44 **Notice of Continuation: August 4, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:	Date filed:
State Admin Rule Filing Key: 155943	
Utah Admin. Code ref. (R no.): R307-165	

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality

Room no.: Fourth Floor

Building:

Street address 1: 195 N 1950 W

Street address 2:

City, state, zip: SALT LAKE CITY UT 84116-3085

Mailing address 1: PO BOX 144820

Mailing address 2:

City, state, zip: SALT LAKE CITY UT 84114-4820

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Testing

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources..." One component of preventing air pollution is testing to ensure that control equipment is working properly.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
No comments have been submitted on this rule since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
R307-165 establishes the frequency of emission testing requirements for all areas in the state. Without periodic testing, there is no guarantee that pollution control equipment is working properly. Therefore, this rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, emission testing

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/15/2015

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

2 **R307-201. Emission Standards: General Emission Standards.**

3 **R307-201-1. Purpose.**

4 R307-201 establishes emission standards for all areas of
5 the state except for sources listed in section IX, Part H of the
6 state implementation plan or located in a PM10 nonattainment or
7 maintenance area.

8

9 **R307-201-2. Applicability.**

10 R307-201 applies statewide to any sources of emissions
11 except for sources listed in section IX, Part H of the state
12 implementation plan or located in a PM10 nonattainment or
13 maintenance area.

14

15 **R307-201-3. Visible Emissions Standards.**

16 (1) Visible emissions from installations constructed on or
17 before April 25, 1971, except diesel engines, shall be of a
18 shade or density no darker than 40% opacity, except as otherwise
19 provided in these rules.

20 (2) Visible emissions from installations constructed after
21 April 25, 1971, except diesel engines shall be of a shade or
22 density no darker than 20% opacity, except as otherwise provided
23 in these rules.

24 (3) Visible emissions for all incinerators, no matter when
25 constructed, shall be of shade or density no darker than 20%
26 opacity.

27 (4) No owner or operator of a gasoline powered engine or
28 vehicle shall allow, cause or permit visible emissions.

29 (5) Emissions from diesel engines, except locomotives,
30 manufactured after January 1, 1973, shall be of a shade or
31 density no darker than 20% opacity, except for starting motion
32 no farther than 100 yards or for stationary operation not
33 exceeding three minutes in any hour.

34 (6) Emissions from diesel engines manufactured before
35 January 1, 1973, shall be of a shade or density no darker than
36 40% opacity, except for starting motion no farther than 100
37 yards or for stationary operation not exceeding three minutes in
38 any hour.

39 (7) Visible emissions exceeding the opacity standards for
40 short time periods as the result of initial warm-up, soot
41 blowing, cleaning of grates, building of boiler fires, cooling,
42 etc., caused by start-up or shutdown of a facility, installation
43 or operation, or unavoidable combustion irregularities which do
44 not exceed three minutes in length (unavoidable combustion
45 irregularities which exceed three minutes in length must be

1 handled in accordance with R307-107), shall not be deemed in
2 violation provided that the director finds that adequate control
3 technology has been applied. The owner or operator shall
4 minimize visible and non-visible emissions during start-up or
5 shutdown of a facility, installation, or operation through the
6 use of adequate control technology and proper procedures.

7 (8) Compliance Method. Emissions shall be brought into
8 compliance with these requirements by reduction of the total
9 weight of contaminants discharged per unit of time rather than
10 by dilution of emissions with clean air.

11 (9) Opacity Observation. Opacity observations of
12 emissions from stationary sources shall be conducted in
13 accordance with EPA Method 9. Opacity observers of mobile
14 sources and intermittent sources shall use procedures similar to
15 Method 9, but the requirement for observations to be made at 15
16 second intervals over a 6-minute period shall not apply.

17
18 **R307-201-4. Automobile Emission Control Devices.**

19 Any person owning or operating any motor vehicle or motor
20 vehicle engine registered or principally operated in the State
21 of Utah on which is installed or incorporated a system or device
22 for the control of crankcase emissions or exhaust emissions in
23 compliance with the Federal motor vehicle rules, shall maintain
24 the system or device in operable condition and shall use it at
25 all times that the motor vehicle or motor vehicle engine is
26 operated. No person shall remove or make inoperable the system
27 or device or any part thereof, except for the purpose of
28 installing another system or device, or part thereof, which is
29 equally or more effective in reducing emissions from the vehicle
30 to the atmosphere.

31
32 **KEY: air pollution, PM10**

33 **Date of Enactment or Last Substantive Amendment: September 2,**
34 **2005**

35 **Notice of Continuation: March 4, 2010**

36 **Authorizing, and Implemented or Interpreted Law: 19-2-101; 19-**
37 **2-104**

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:		Date filed:	
State Admin Rule Filing Key:	155775		
Utah Admin. Code ref. (R no.):	R307-201		

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality

Room no.: Fourth Floor

Building:

Street address 1: 195 N 1950 W

Street address 2:

City, state, zip: SALT LAKE CITY UT 84116-3085

Mailing address 1: PO BOX 144820

Mailing address 2:

City, state, zip: SALT LAKE CITY UT 84114-4820

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Standards: General Emission Standards

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Subsection 19-2-104(1)(b) allows the Air Quality Board to make rules "establishing air quality standards." Standards are needed to ensure that emissions of air pollution do not harm public health.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
No comments were received since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
Standards are needed to ensure that emissions of air pollution do not harm public health. This rule establishes emission standards statewide.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, PM10

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

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

2 **R307-202. Emission Standards: General Burning.**

3 **R307-202-1. Applicability.**

4 R307-202-4 through R307-202-8 applies to general burning within
5 incorporated community under the authority of county or municipal
6 fire authority.

7
8 **R307-202-2. Definitions.**

9 The following additional definitions apply only to R307-202.

10 "Attainment areas" means any area that meets the national primary
11 and secondary ambient air quality standard (NAAQS) for the pollutant.

12 "County or municipal fire authority" means the public official
13 so designated with the responsibility, authority, and training to
14 protect people, property, and the environment from fire, within their
15 respective area of jurisdiction.

16 "Federal Class I Area" means an area that consists of national
17 parks exceeding 6,000 acres, wilderness areas and national memorial
18 parks exceeding 5,000 acres, and all international parks that were
19 in existence on August 7, 1977. See Clean Air Act section 162(a).

20 "Fire hazard" means a hazardous condition involving combustible,
21 flammable, or explosive material that represents a substantial threat
22 to life or property if not immediately abated, as declared by the
23 county or municipal fire authority.

24 "Native American spiritual advisor" means a person who leads,
25 instructs, or facilitates a Native American religious ceremony or
26 service; or provides religious counseling; is an enrolled member of
27 a federally recognized Native American tribe; and is recognized as
28 a spiritual advisor by a federally recognized Native American tribe.

29 "Native American spiritual advisor" includes a sweat lodge leader,
30 medicine person, traditional religious practitioner, or holy man or
31 woman.

32
33 **R307-202-3. Exclusions.**

34 As provided in Section 19-2-114, the provisions of R307-202 are
35 not applicable to:

36 (1) Except for areas zoned as residential, burning incident
37 to horticultural or agricultural operations of:

38 (a) Prunings from trees, bushes, and plants; and

39 (b) Dead or diseased trees, bushes, and plants, including
40 stubble.

41 (2) Burning of weed growth along ditch banks for clearing these
42 ditches for irrigation purposes;

43 (3) Controlled heating of orchards or other crops during the
44 frost season to lessen the chances of their being frozen so long as
45 the emissions from this heating do not cause or contribute to an
46 exceedance of any national ambient air quality standards and is
47 consistent with the federally approved State Implementation Plan;
48 and

49 (4) The controlled burning of not more than two structures per
50 year by an organized and operating fire department for the purpose
51 of training fire service personnel when the National Weather Service

1 clearing index is above 500. See also Section 11-7-1(2)(a).

2 (5) Ceremonial burning is excluded from R307-202-4(2) when
3 conducted by a Native American spiritual advisor.

4
5 **R307-202-4. Prohibitions.**

6 (1) No open burning shall be done at sites used for disposal
7 of community trash, garbage and other wastes.

8 (2) No person shall burn under this rule when the director issues
9 a public announcement under R307-302. The director will distribute
10 such announcement to the local media notifying the public that a
11 mandatory no-burn period is in effect for the area where the burning
12 is to occur.

13
14 **R307-202-5. General Requirements.**

15 (1) Except as otherwise provided in this rule, no person shall
16 set or use an open outdoor fire for the purpose of disposal or burning
17 of petroleum wastes; demolition or construction debris; residential
18 rubbish; garbage or vegetation; tires; tar; trees; wood waste; other
19 combustible or flammable solid, liquid or gaseous waste; or for metal
20 salvage or burning of motor vehicle bodies.

21 (2) The county or municipal fire authority shall approve burning
22 based on the predicted meteorological conditions and whether the
23 emissions would impact the health and welfare of the public or cause
24 or contribute to an exceedance of any national ambient air quality
25 standard.

26 (3) Nothing in this regulation shall be construed as relieving
27 any person conducting open burning from meeting the requirements of
28 any applicable federal, state or local requirements concerning
29 disposal of any combustible materials.

30 (4) The county or municipal fire authority that approves any
31 open burning permit will retain a copy of each permit issued for one
32 year.

33
34 **R307-202-6. Open Burning - Without Permit.**

35 The following types of open burning do not require a permit when
36 not prohibited by other local, state or federal laws and regulations,
37 when it does not create a nuisance, as defined in Section 76-10-803,
38 and does not impact the health and welfare of the public.

39 (1) Devices for the primary purpose of preparing food such as
40 outdoor grills and fireplaces;

41 (2) Campfires and fires used solely for recreational purposes
42 where such fires are under control of a responsible person and the
43 combustible material is clean, dry wood or charcoal; and

44 (3) Indoor fireplaces and residential solid fuel burning
45 devices except as provided in R307-302-2.

46
47 **R307-202-7. Open Burning - With Permit.**

48 (1) No person shall knowingly conduct open burning unless the
49 open burning activities may be conducted without a permit pursuant
50 to R307-202-6 or the person has a valid permit for burning on a
51 specified date or period, issued by the county or municipal fire

1 authority having jurisdiction in the area where the open burning will
2 take place.

3 (2) A permit applicant shall provide information as requested
4 by the county or municipal fire authority. No permit or authorization
5 shall be deemed valid unless the issuing authority determines that
6 the applicant has provided the required information.

7 (3) Persons seeking an open burning permit shall submit to the
8 county or municipal fire authority an application on a form provided
9 by the director for each separate burn.

10 (4) A permit shall be valid only on the lands specified on the
11 permit.

12 (5) No material shall be burned unless it is clearly described
13 and quantified as material to be burned on a valid permit.

14 (6) No burning shall be conducted contrary to the conditions
15 specified on the permit.

16 (7) Any permit issued by a county or municipal fire authority
17 shall be subject to the local, state, and federal rules and
18 regulations.

19 (8) Open burning is authorized by the issuance of a permit,
20 as stipulated within this rule, for specification in R307-202-7(10).

21 These permits can only be issued when not prohibited by other local,
22 state, or federal laws and regulations and when a nuisance as defined
23 in Section 76-10-803 is not created and does not impact the health
24 and welfare of the public.

25 (9) Individual permits, as stipulated within this rule, for
26 the types of burning listed in R307-202-7(10) may be issued by a county
27 or municipal fire authority when the clearing index is 500 or greater.

28 When the clearing index is below 500, all permits issued for that
29 day will be null and void until further notice from the county or
30 municipal fire authority. Additionally, anyone burning on the day
31 when the clearing index is below 500 or is found to be violating any
32 part of this rule shall be liable for a fine in accordance with
33 R307-130.

34 (10) Types of open burning for which a permit may be granted
35 are:

36 (a) Except in nonattainment and maintenance areas, open burning
37 of tree cuttings and slash in forest areas where the cuttings accrue
38 from pulping, lumbering, and similar operations, but excluding waste
39 from sawmill operations such as sawdust and scrap lumber.

40 (b) Open burning of trees and brush within railroad
41 rights-of-way provided that dirt is removed from stumps before
42 burning, and that tires, oil more dense than #2 fuel oil, tar, or
43 other materials which can cause severe air pollution are not present
44 in the materials to be burned, and are not used to start fires or
45 to keep fires burning.

46 (c) Open burning of a fire hazard that a county or municipal
47 fire authority determines cannot be abated by any other viable option.

48 (d) Open burning of highly explosive materials when a county
49 or municipal fire authority, law enforcement agency or governmental
50 agency having jurisdiction determines that onsite burning or
51 detonation in place is the only reasonably available method for safely

1 disposing of the material.

2 (e) Open burning for the disposal of contraband in the
3 possession of public law enforcement personnel provided they
4 demonstrate to the county or municipal fire authority that open burning
5 is the only reasonably available method for safely disposing of the
6 material.

7 (f) Open burning of clippings, bushes, plants and prunings from
8 trees incident to property clean-up activities, including residential
9 cleanup, provided that the following conditions have been met:

10 (i) Within only the counties of Washington, Kane, San Juan,
11 Iron, Garfield, Beaver, Piute, Wayne, Grand and Emery, the county
12 or municipal fire authority may issue a permit between March 1 and
13 May 30 when the clearing index is 500 or greater. The county or
14 municipal fire authority may issue a permit between September 15 to
15 November 15 for such burning to occur when the state forester has
16 approved the burning window under Section 65A-8-211 and the clearing
17 index is 500 or greater.

18 (ii) In all other areas of the state, the county or municipal
19 fire authority may issue a permit between March 30 and May 30 for
20 such burning to occur when the clearing index is 500 or greater.
21 The county or municipal fire authority may issue a permit between
22 September 15 and October 30 for such burning to occur when the state
23 forester has approved the burning window under Section 65A-8-211 and
24 the clearing index is 500 or greater.

25 (iii) Such burnings occur in accordance with state and federal
26 requirements;

27 (iv) Materials to be burned are thoroughly dry; and

28 (v) No trash, rubbish, tires, or oil are included in the material
29 to be burned, used to start fires, or used to keep fires burning.

30 (g) Except for nonattainment and maintenance areas, the
31 director may grant a permit for types of open burning not specified
32 in R307-202-7(3) on written application if the director finds that
33 the burning is consistent with the federally approved State
34 Implementation Plan and does not cause or contribute to an exceedance
35 of any national ambient air quality standards.

36 (i) This permit may be granted once the director has reviewed
37 the written application with the requirements and criteria found
38 within this rule at R307-202-7.

39 (ii) Open Burning Permit Criteria.

40 (A) The director or the county or municipal fire authority shall
41 consider the following factors in determining whether, and upon what
42 conditions, to issue an open burning permit:

43 (I) The location and proximity of the proposed burning to any
44 building, other structures, the public, and federal Class I areas
45 that might be impacted by the smoke and emissions from the burn;

46 (II) Burning will only be conducted when the clearing index
47 is 500 or above; and

48 (III) Whether there is any practical alternative method for
49 the disposal of the material to be burned.

50 (B) Methods to minimize emissions and smoke impacts may include,
51 but are not limited to:

1 (I) The use of clean auxiliary fuel;
2 (II) Drying the material prior to ignition; and
3 (III) Separation for alternative disposal of materials that
4 produce higher levels of emissions and smoke during the combustion
5 process.

6 (C) Open burning permits are not valid during periods when the
7 clearing index is below 500 or publicly announced air pollution
8 emergencies or alerts have been declared in the area of the proposed
9 burn.

10 (D) For burns of piled material, all piles shall be reasonably
11 dry and free of dirt.

12 (E) Open burns shall be supervised by a responsible person who
13 shall notify the local fire department and have available, either
14 on-site or by the local fire department, the means to suppress the
15 burn if the fire does not comply with the terms and conditions of
16 the permit.

17 (F) All open burning operations shall be subject to inspection
18 by the director or county or municipal fire authority. The permittee
19 shall maintain at the burn site the original or a copy of the permit
20 that shall be made available without unreasonable delay to the
21 inspector.

22 (G) If at any time the director or the county or municipal fire
23 authority granting the permit determines that the permittee has not
24 complied with any term or condition of the permit, the permit is subject
25 to partial or complete suspension, revocation or imposition of
26 additional conditions. All burning activity subject to the permit
27 shall be terminated immediately upon notice of suspension or
28 revocation. In addition to suspension or revocation of the permit,
29 the director or county or municipal fire authority may take any other
30 enforcement action authorized under state or local law.

31

32 **R307-202-8. Special Conditions.**

33 (1) Open burning for special purposes or under unusual or
34 emergency circumstances may be approved by the director if it is
35 consistent with the federally approved State Implementation Plan and
36 does not cause or contribute to an exceedance of any national ambient
37 air quality standards.

38 (a) This permit may be granted once the director has reviewed
39 the written application with the requirements and criteria in
40 R307-202-7.

41

42 **KEY: air pollution, open burning, fire authority**
43 **Date of Enactment or Last Substantive Amendment: October 6, 2014**
44 **Notice of Continuation: March 4, 2010**
45 **Authorizing, and Implemented or Interpreted Law: 19-2-104;**
46 **11-7-1(2)(a); 65A-8-211; 76-10-803**

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:	Date filed:
State Admin Rule Filing Key: 155776	
Utah Admin. Code ref. (R no.): R307-202	

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality

Room no.: Fourth Floor

Building:

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Street address 2:

City, state, zip: SALT LAKE CITY UT 84116-3085

Mailing address 1: PO BOX 144820

Mailing address 2:

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Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Mark Berger	801-536-4000	801-536-0085	mberger@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Standards: General Burning

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources...." Rule R307-202 sets forth the conditions under which burning of yard clippings is allowed, forbids burning at community waste disposal sites, and the burning of trash or garbage. Rule R307-202 does not regulate fireplaces or outdoor grills.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
R307-202 has been amended two times since the last 5-year review (DAR#35923 and 38672). Comments received since the last 5-year review were to make suggestions to improve proposed amendments to the rule and to support adding an exemption for ceremonial burning when conducted by a Native American spiritual advisor.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:

Rule R307-202 is necessary to specify time windows when local officials may allow burning for yard cleanup, and to set forth the kinds of burning for which permits are not needed; and should be continued. In addition, Rule R307-202 is a component of Utah's State Implementation Plan, and cannot be deleted without EPA approval.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, open burning, fire marshal

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

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

2 **R307-203. Emission Standards: Sulfur Content of Fuels.**

3 **R307-203-1. Commercial and Industrial Sources.**

4 (1) Any coal, oil, or mixture thereof, burned in any fuel burning
5 or process installation not covered by New Source Performance
6 Standards for sulfur emissions shall contain no more than 1.0 pound
7 sulfur per million gross BTU heat input for any mixture of coal nor
8 .85 pounds sulfur per million gross BTU heat input for any oil.

9 (a) In the case of fuel oil, it shall be sufficient to record
10 the following specifications for each purchase of fuel oil from the
11 vendor: weight percent sulfur, gross heating value (btu per unit
12 volume), and density. These parameters shall be ascertained in
13 accordance with the methods of the American Society for Testing and
14 Materials.

15 (b) In the case of coal, it shall be necessary to obtain a
16 representative grab sample for every 24 hours of operation and the
17 sample shall be tested in accordance with the methods of the American
18 Society for Testing and Materials.

19 (c) All sources located in the SO₂ nonattainment area covered
20 by Section IX, Part H of the Utah State Implementation Plan which
21 are required to comply with specific fuel (oil or coal) sulfur content
22 limitations must demonstrate compliance with their limitations in
23 accordance with (a) and (b) above.

24 (d) Records of fuel sulfur content shall be kept for all periods
25 when the plant is in operation and shall be made available to the
26 director upon request, and shall include a period of two years ending
27 with the date of the request.

28 (e) If the owner/operator of the source can demonstrate to the
29 director that the inherent variability of the coal they are receiving
30 from the vendor is low enough such that the testing requirements
31 outlined above may be deemed excessive, then an alternative testing
32 plan may be approved for use with the same source of coal.

33 (f) Any person may apply to the director for approval of an
34 alternative test method, an alternative method of control, an
35 alternative compliance period, an alternative emission limit, or an
36 alternative monitoring schedule. The application must include a
37 demonstration that the proposed alternative produces an equal or
38 greater air quality benefit than that required by R307-203, or that
39 the alternative test method is equivalent to that required by R307-203.
40 The director shall obtain concurrence from EPA when approving an
41 alternative test method, an alternative method of control, an
42 alternative compliance period, an alternative emission limit, or an
43 alternative monitoring schedule.

44 (2) Any person engaged in operating fuel burning equipment using
45 coal or fuel oil, which is not covered by New Source Performance
46 Standards for sulfur emissions, may apply for an exemption from the
47 sulfur content restrictions of (1) above. The applicant shall furnish
48 evidence, that the fuel burning equipment is operating in such a manner
49 as to prevent the emission of sulfur dioxide in amounts greater than
50 would be produced under the limitations of (1) above. Control
51 apparatus to continuously prevent the emission of sulfur greater than

1 provided by (1) above must be specified in the application for an
2 exemption.

3 (3) In case an exemption is granted, the operator shall install
4 continuous emission monitoring devices approved by the director.
5 The operator shall provide the director with a monthly summary of
6 the data from such monitors. This summary shall be such as to show
7 the degree of compliance with (1) above. It shall be submitted no
8 later than the calendar month succeeding its recording. When
9 exemptions from (1) above are granted, the source's application for
10 such exemption must specify the test method for determining sulfur
11 emissions. The test method must agree with the NSPS test method for
12 the same industrial category.

13 (4) Methods for determining sulfur content of coal and fuel
14 oil shall be those methods of the American Society for Testing and
15 Materials.

16 (a) For determining sulfur content in coal, ASTM Methods
17 D3177-75 or D4239-85 are to be used.

18 (b) For determining sulfur content in oil, ASTM Methods D2880-71
19 or D4294-89 are to be used.

20 (c) For determining the gross calorific (or BTU) content of
21 coal, ASTM Methods D2015-77 or D3286-85 are to be used.
22

23 **R307-203-2. Sulfur and Ash Content of Coal for Residential Use.**

24 (1) After July 1, 1987, no person shall sell, distribute, use
25 or make available for use any coal or coal containing fuel for direct
26 space heating in residential solid fuel burning devices and fireplaces
27 which exceeds the following limitations as measured by the American
28 Society for Testing Materials Methods:

29 (a) 1.0 pound sulfur per million BTU's, and

30 (b) 12% volatile ash content.

31 (2) Any person selling coal or coal containing fuel used for
32 direct residential space heating within the State of Utah shall provide
33 written documentation to the coal consumer of the sulfur and volatile
34 ash content of the coal being purchased.
35

36 **R307-203-3. Emissions Standards.**

37 Other provisions of R307 may require more stringent controls
38 than listed herein, in which case those requirements must be met.
39

40 **KEY: air pollution, fuel composition*, fuel oil***

41 **Date of Enactment or Last Substantive Amendment: September 15, 1998**

42 **Notice of Continuation: March 4, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:		Date filed:	
State Admin Rule Filing Key:	155778		
Utah Admin. Code ref. (R no.):	R307-203		

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality

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Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Standards: Sulfur Content of Fuels

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Rule R307-203 establishes the maximum amount of sulfur that may be contained in coal and oil burned in industrial processes and residential heating, thus holding down the emissions of sulfur dioxide from these processes. Subsection 19-2-104(1)(a) authorizes the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
There have been no written comments received since the last five-year review of R307-203.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
Sulfur dioxide is harmful to human health, which is the basis for EPA's listing of sulfur dioxide as a principal pollutant. Without this rule, users could burn coal or oil with higher sulfur content, thus emitting more sulfur dioxide into the atmosphere. In addition, Rule R307-203 is a component of Utah's State Implementation Plan, and cannot be deleted without EPA approval.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, fuel oil, fuel composition

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

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

2 **R307-204. Emission Standards: Smoke Management.**

3 **R307-204-1. Purpose and Goals.**

4 (1) The purpose of R307-204 is to establish by rule procedures
5 that mitigate the impact on public health and visibility of prescribed
6 fire and wildland fire.

7
8 **R307-204-2. Applicability.**

9 (1) R307-204 applies to all persons using prescribed fire or
10 wildland fire on land they own or manage.

11 (2) R307-204 does not apply to agricultural activities
12 specified in 19-2-114 and to those regulated under R307-202, or to
13 activities otherwise permitted under R307.

14
15 **R307-204-3. Definitions.**

16 The following additional definitions apply only to R307-204.

17 "Annual Emissions Goal" means the annual establishment of a
18 planned quantitative value of emissions reductions from prescribed
19 fire.

20 "Best Management Practices" means smoke management and
21 dispersion techniques used during a prescribed fire or a wildland
22 fire use event that affect the direction, duration, height or density
23 of smoke.

24 "Burn Plan" means the plan required for each fire application
25 ignited by managers. It must be prepared by qualified personnel and
26 approved by the appropriate agency administrator prior to
27 implementation. Each plan follows specific agency direction and must
28 include critical elements described in agency manuals.

29 "Burn Window" means the period of time during which the prescribed
30 fire is scheduled for ignition.

31 "Emission Reduction Techniques (ERT)" mean techniques for
32 controlling emissions from prescribed fires to minimize the amount
33 of emission output per unit or acre burned.

34 "Federal Class I Area" means any Federal land that is federally
35 classified or reclassified Class I.

36 "Fire Prescription" means the measurable criteria that define
37 conditions under which a prescribed fire may be ignited, guide
38 selection of appropriate management responses, and indicates other
39 required actions. Prescription criteria may include safety,
40 economic, public health, environmental, geographic, administrative,
41 social, or legal considerations.

42 "Land Manager" means any federal, state, local or private entity
43 that owns, administers, directs, oversees or controls the use of public
44 or private land, including the application of fire to the land.

45 "Non-burning Alternatives to Fire" means non-burning techniques
46 that are used to achieve a particular land management objective,
47 including but not limited to reduction of fuel loading, manipulation
48 of fuels, enhancement of wildlife habitat, and ecosystem
49 restructuring. These alternatives are designed to replace the use
50 of fire for at least the next five years.

51 "Particulate Matter" means the liquid or solid particles such

1 as dust, smoke, mist, or smog found in air emissions.

2 "Pile" means natural materials or debris resulting from some
3 type of fuels management practice that have been relocated either
4 by hand or machinery into a concentrated area.

5 "Pile Burn" means burning of individual piles.

6 "Prescribed Fire or Prescribed Burn" means any fire ignited by
7 management actions to meet specific objectives, such as achieving
8 resource benefits.

9 "Smoke Sensitive Receptors" means population centers such as
10 towns and villages, campgrounds and trails, hospitals, nursing homes,
11 schools, roads, airports, Class I areas, nonattainment and maintenance
12 areas, areas whose air quality monitoring data indicate pollutant
13 levels that are close to health standards, and any other areas where
14 smoke and air pollutants can adversely affect public health, safety
15 and welfare.

16 "Wildland" means an area in which development is essentially
17 non-existent, except for pipelines, power lines, roads, railroads,
18 or other transportation or conveyance facilities. Structures, if
19 any, are widely scattered.

20 "Wildland Fire" means any non-structure fire, other than
21 prescribed fire, that occurs in the wildland.

22 "Wildland Fire Use Event" means naturally ignited wildland fire
23 that is managed to accomplish specific pre-stated resource management
24 objectives in predefined geographic areas.

25 "Wildland Fire Implementation Plan(WFIP)" means the plan
26 required for each fire that is allowed to burn.

27 "WFIP Stage I" means the initial wildland fire strategy planning
28 document. It is developed for fires less than 20 acres, with a low
29 potential of spread and negative impacts. It must be completed within
30 8-hrs. of start.

31 "WFIP Stage II" means a more detailed wildland fire strategy
32 planning document. It is developed for fires greater than 20 acres
33 that are more active fires with a greater potential for geographic
34 extent. It must be completed within 24-hrs. of start.

35 36 **R307-204-4. General Requirements.**

37 (1) Management of On-Going Fires. If, after consultation with
38 the land manager, the director determines that a prescribed fire,
39 wildland fire use event, wildland fire, or any smoke transported from
40 other locations, is degrading air quality to levels that could violate
41 the National Ambient Air Quality Standards or burn plan conditions,
42 the land manager shall promptly stop igniting additional prescribed
43 fires.

44 (2) Emissions Calculations. In calculating emissions
45 information required under R307-204, each land manager shall use
46 emission factors approved by the director.

47 (3) Non-burning Alternatives to Fire. Beginning in 2004 and
48 annually thereafter, each land manager shall submit to the director
49 by March 15 a list of areas treated using non-burning alternatives
50 to fire during the previous calendar year, including the number of
51 acres, the specific types of alternatives used, and the location of

1 these areas.

2 (4) Annual Emissions Goal. The director shall provide an
3 opportunity for an annual meeting with land managers for the purpose
4 of evaluation and adoption of the annual emission goal. The annual
5 emission goal shall be developed in cooperation with states, federal
6 land management agencies and private entities, to control prescribed
7 fire emissions increases to the maximum feasible extent.

8 (5) Long-term Fire Projections. Each land manager shall
9 provide to the director by March 15 annually long-term projections
10 of future prescribed fire activity for annual assessment of visibility
11 impairment.

12
13 **R307-204-5. Burn Schedule.**

14 (1) Any land manager planning prescribed fire burning more than
15 50 acres per year shall submit the burn schedule to the director on
16 forms provided by the Division of Air Quality, and shall include the
17 following information for all prescribed fires including those smaller
18 than 20 acres:

19 (a) Project number and project name;

20 (b) Air Quality Basin, UTM coordinate for the central point
21 of the prescribed fire, project elevation, and county;

22 (c) Total project acres, description of major fuels, type of
23 burn, ignition method, and planned use of emission reduction
24 techniques to support establishment of the annual emissions goal;

25 (d) Earliest burn date and burn duration.

26 (2) Each land manager shall submit each year's burn schedule
27 no later than March 15 of that year.

28 (3) Any land manager who makes changes to the burn schedule
29 shall submit an amendment to the burn schedule within 10 days after
30 the change.

31
32 **R307-204-6. Small Prescribed Fires (de minimis).**

33 (1) A prescribed fire that covers less than 20 acres per burn
34 shall be ignited only when the clearing index is 500 or greater.

35 (2) A prescribed fire that covers less than 20 acres per day
36 may be ignited when the National Weather Service Clearing Index is
37 between 500 and 400 with approval of the director.

38 (a) The prescribed fire should be recorded as a de minimis
39 prescribed fire on the Utah Annual Burn Schedule.

40 (b) The Land Manager is required to notify the director by fax,
41 e-mail, or phone prior to ignition of the burn when burning below
42 a National Weather Service Clearing Index is between 500 and 400.

43 (c) The land manager must include hourly photographs, a record
44 of any complaints, hourly meteorological conditions and an hourly
45 description of the smoke plume must be recorded and submitted.

46
47 **R307-204-7. Small Prescribed Pile Fires (de minimis).**

48 (1) Pile burns covering up to 30,000 cubic feet per day shall
49 be ignited only when the clearing index is 500 or greater.

50 (2) Pile burns covering up to 30,000 cubic feet per day may
51 be ignited when the National Weather Service Clearing Index is between

1 500 and 400 with approval of the director.

2 (a) The pile fire should be recorded as a de minimis prescribed
3 fire on the Utah Annual Burn Schedule.

4 (b) The Land Manager is required to notify the director by fax,
5 e-mail, or phone prior to ignition of the burn when burning below
6 a National Weather Service Clearing Index is between 500 and 400.

7 (c) The land manager must include hourly photographs, a record
8 of any complaints, hourly meteorological conditions and an hourly
9 description of the smoke plume must be recorded and submitted.

10
11 **R307-204-8. Large Prescribed Fires.**

12 (1) Burn Plan. For a prescribed fire that covers 20 acres or
13 more per burn, the land manager shall submit to the director a burn
14 plan, including a fire prescription.

15 (2) Pre-Burn Information. For a prescribed fire that covers
16 20 acres or more per burn, the land manager shall submit pre-burn
17 information to the director at least two weeks before the beginning
18 of the burn window. The pre-burn information shall be submitted to
19 the director on the appropriate form provided by the Division of Air
20 Quality by fax, electronic mail or postal mail and shall include the
21 following information:

22 (a) The three-letter ID, project number, date submitted, name
23 of person submitting the form, burn manager, and phone numbers;

24 (b) Summary of burn objectives, such as restoration or
25 maintenance of ecological functions or indication of fire resiliency;

26 (c) Any sensitive receptor within 15 miles, including any Class
27 I or nonattainment or maintenance area, and distance and direction
28 in degrees from the project site;

29 (d) Planned mitigation methods;

30 (e) The smoke dispersion or visibility model used and results;

31 (f) The estimated amount of total particulate matter
32 anticipated;

33 (g) A description of how the public and land managers in
34 neighboring states will be notified;

35 (h) A map depicting both the daytime and nighttime smoke path
36 and down-drainage flow for a minimum of 15 miles from the burn site
37 with smoke-sensitive areas delineated;

38 (i) Safety and contingency plans for addressing any smoke
39 intrusions; and

40 (j) If the fire is in a nonattainment or maintenance area and
41 is subject to general conformity (42 U.S.C. 7506(c)), a copy of the
42 conformity demonstration showing that the fire meets the requirements
43 of the Clean Air Act and conforms with the applicable State
44 Implementation Plan.

45 (k) Planned use of emission reduction techniques to support
46 establishment of an annual emissions goal, if not already submitted
47 under R307-204-5.

48 (l) Any other information needed by the director for smoke
49 management purposes, or for assessment of contribution to visibility
50 impairment in any Class I area.

51 (3) Burn Request.

1 (a) The land manager shall submit to the director a burn request
2 on the form provided by the Division of Air Quality by 1000 hours
3 at least two business days before the planned ignition time. The
4 form may be submitted by fax or electronic mail, and must include
5 the following information:

6 (i) The three-letter identification and project number
7 consistent with the annual burn schedule required in R307-204-5(1)
8 above;

9 (ii) The date submitted and by whom; and

10 (iii) The burn manager conducting the burn and phone numbers.

11 (b) No prescribed fire requiring a burn plan shall be ignited
12 before the director approves the burn request.

13 (c) If a prescribed fire is delayed, changed or not completed
14 following burn approval, any significant changes in the burn plan
15 shall be submitted to the director before the burn request is
16 submitted. If a prescribed fire is not carried out, the land manager
17 shall list the reasons on the burn request form provided by the Division
18 of Air Quality and shall submit the form by fax or electronic mail
19 to the director by 0800 hours the following business day.

20 (4) Daily Emissions Report. By 0800 hours on the day following
21 the prescribed burn, for each day of prescribed fire activity covering
22 20 acres or more, the land manager shall submit to the director a
23 daily emission report on the form provided by the Division of Air
24 Quality including the following information:

25 (a) The three-letter identification and project number
26 consistent with the annual burn schedule required in R307-204-5(1)
27 above;

28 (b) The date submitted and by whom;

29 (c) The start and end dates and times of the burn;

30 (d) Emission information including black acres, tons fuel
31 consumed per acre, and tons particulate matter produced;

32 (e) Public interest regarding smoke;

33 (f) Daytime ventilation;

34 (g) Nighttime smoke behavior;

35 (h) Evaluation of the techniques used by the land manager to
36 reduce emissions or manage the smoke from the prescribed burn; and

37 (i) Emission reduction techniques applied.

38 (5) Emission Reduction and Dispersion Techniques. Each land
39 manager shall take measures to prevent smoke impacts. Such measures
40 may include best management practices such as dilution, emission
41 reduction or avoidance in addition to others described in the pre-burn
42 information form provided by the Division of Air Quality. An
43 evaluation of the techniques shall be included in the daily emissions
44 report required by (4) above.

45 (6) Monitoring. Land managers shall monitor the effects of
46 the prescribed fire on smoke sensitive receptors and on visibility
47 in Class I areas, as directed by the burn plan. Hourly visual
48 monitoring and documentation of the direction of the smoke plume shall
49 be recorded on the form provided by the Division of Air Quality or
50 on the land manager's equivalent form. Complaints from the public
51 shall be noted in the land managers project file. Records shall be

1 available for inspection by the director for six months following
2 the end of the fire.

3
4 **R307-204-9. Large Prescribed Pile Fires.**

5 (1) Burn Plan. For a prescribed pile fire that exceeds 30,000
6 cubic feet per day, the land manager shall submit to the director
7 a burn plan, including a fire prescription.

8 (2) Pre-Burn Information. For a prescribed pile fire that
9 exceeds 30,000 cubic feet or more per burn, the land manager shall
10 submit pre-burn information to the director at least two weeks before
11 the beginning of the burn window. The pre-burn information shall
12 be submitted to the director on the appropriate form provided by the
13 Division of Air Quality by fax, electronic mail or postal mail and
14 shall include the following information:

15 (a) The three-letter ID, project number, date submitted, name
16 of person submitting the form, burn manager, and phone numbers;

17 (b) Summary of burn objectives, such as restoration or
18 maintenance of ecological functions or indication of fire resiliency;

19 (c) Any sensitive receptor within 15 miles, including any Class
20 I or nonattainment or maintenance area, and distance and direction
21 in degrees from the project site;

22 (d) Planned mitigation methods;

23 (e) The smoke dispersion or visibility model used and results;

24 (f) The estimated amount of total particulate matter
25 anticipated;

26 (g) A description of how the public and land managers in
27 neighboring states will be notified;

28 (h) A map depicting both the daytime and nighttime smoke path
29 and down-drainage flow for a minimum of 15 miles from the burn site
30 with smoke-sensitive areas delineated;

31 (i) Safety and contingency plans for addressing any smoke
32 intrusions; and

33 (j) If the fire is in a nonattainment or maintenance area and
34 is subject to general conformity (42 U.S.C. 7506(c)), a copy of the
35 conformity demonstration showing that the fire meets the requirements
36 of the Clean Air Act and conforms with the applicable State
37 Implementation Plan.

38 (k) Planned use of emission reduction techniques to support
39 establishment of an annual emissions goal, if not already submitted
40 under R307-204-5.

41 (l) Any other information needed by the director for smoke
42 management purposes, or for assessment of contribution to visibility
43 impairment in any Class I area.

44 (3) Burn Request.

45 (a) The land manager shall submit to the director a burn request
46 on the form provided by the Division of Air Quality by 1000 hours
47 at least two business days before the planned ignition time. The
48 form may be submitted by fax or electronic mail, and must include
49 the following information:

50 (i) The three-letter identification and project number
51 consistent with the annual burn schedule required in R307-204-5(1)

1 above;

2 (ii) The date submitted and by whom; and

3 (iii) The burn manager conducting the burn and phone numbers.

4 (b) No prescribed pile fire requiring a burn plan shall be
5 ignited before the director approves the burn request.

6 (c) If a prescribed pile fire is delayed, changed or not
7 completed following burn approval, any significant changes in the
8 burn plan shall be submitted to the director before the burn request
9 is submitted. If a prescribed fire is not carried out, the land
10 manager shall list the reasons on the burn request form provided by
11 the Division of Air Quality and shall submit the form by fax or
12 electronic mail to the director by 0800 hours the following business
13 day.

14 (4) Daily Emissions Report. By 0800 hours on the day following
15 the prescribed pile burn, for each day of pile fire activity exceeding
16 30,000 cubic feet, the land manager shall submit to the director a
17 daily emission report on the form provided by the Division of Air
18 Quality including the following information:

19 (a) The three-letter identification and project number
20 consistent with the annual burn schedule required in R307-204-5(1)
21 above;

22 (b) The date submitted and by whom;

23 (c) The start and end dates and times of the burn;

24 (d) Emission information including black acres, tons fuel
25 consumed per acre, and tons particulate matter produced;

26 (e) Public interest regarding smoke;

27 (f) Daytime ventilation;

28 (g) Nighttime smoke behavior;

29 (h) Evaluation of the techniques used by the land manager to
30 reduce emissions or manage the smoke from the prescribed pile burn;
31 and

32 (i) Emission reduction techniques applied.

33 (5) Emission Reduction and Dispersion Techniques. Each land
34 manager shall take measures to prevent smoke impacts. Such measures
35 may include best management practices such as dilution, emission
36 reduction or avoidance in addition to others described in the pre-burn
37 information form provided by the Division of Air Quality. An
38 evaluation of the techniques shall be included in the daily emissions
39 report required by (4) above.

40 (6) Monitoring. Land managers shall monitor the effects of
41 the prescribed pile fire on smoke sensitive receptors and on visibility
42 in Class I areas, as directed by the burn plan. Hourly visual
43 monitoring and documentation of the direction of the smoke plume shall
44 be recorded on the form provided by the Division of Air Quality or
45 on the land manager's equivalent form. Complaints from the public
46 shall be noted in the land managers project file. Records shall be
47 available for inspection by the director for six months following
48 the end of the fire.

49

50 **R307-204-10. Requirements for Wildland Fire Use Events.**

51 (1) Burn Approval Required.

1 (a) The land manager shall notify the director of any potential
2 wildland fire use (WFU) event having a WFIP Stage I. The following
3 information will be provided:

- 4 (i) UTM coordinate of the fire;
- 5 (ii) Active burning acres;
- 6 (iii) Probable fire size and daily anticipated growth in acres;
- 7 (iv) Types of wildland fuel involved;
- 8 (v) An emergency telephone number that is answered 24 hours
9 a day;
- 10 (vi) Wilderness or Resource Natural Area designation, if
11 applicable;
- 12 (vii) Distance to nearest community;
- 13 (viii) Elevation of fire; and
- 14 (ix) Fire's airshed number.

15 (b) The Land Managers shall notify the director of any potential
16 wildland fire use event covering more than 20 acres or having a WFIP
17 Stage II due to higher potential for spread and negative impacts.
18 In addition to the information required for a WFU with a WFIP Stage
19 I, the following additional information will be provided to the
20 director as it is being developed:

- 21 (i) WFIP Stage II wildland fire implementation plan and
22 anticipated emissions;
- 23 (ii) A map depicting both the daytime and nighttime smoke path
24 and down-drainage flow for a minimum of 15 miles from the burn site
25 with smoke-sensitive areas delineated; and
- 26 (iii) Additional computer smoke modeling, if requested by the
27 director.

28 (c) The director's approval of the smoke management element
29 of the wildland fire implementation plan shall be obtained before
30 managing the fire as a wildland fire use event.

31 (2) Daily Emission Report for wildland fire use event. By 0800
32 hours on the business day following fire activity covering 20 acres
33 or more, the land manager shall submit to the director the daily
34 emission report on the form provided by the Division of Air Quality,
35 including the following information:

- 36 (a) The three-letter identification, project number, Air
37 Quality Basin, and name of the burn manager;
- 38 (b) UTM coordinate;
- 39 (c) Dates and times of the start and end of the burn;
- 40 (d) Black acres by wildland fuel type;
- 41 (e) Estimated proportion of wildland fuel consumed by wildland
42 fuel type;
- 43 (f) Proportion of moisture in the wildland fuel by size class;
- 44 (g) Emission estimates;
- 45 (h) Level of public interest or concern regarding smoke; and
- 46 (i) Conformance to the wildland fire implementation plan.

47 (3) Monitoring. The land manager shall monitor the effects
48 of smoke on smoke sensitive receptors and visibility in Class I areas
49 as directed by the wildland fire implementation plan. Complaints
50 from the public shall be recorded in the project file. Records shall
51 be available for inspection by the director for six months following

1 the end of the fire.

2

3 **KEY: air quality, wildland fire, smoke, land manager**

4 **Date of Enactment or Last Substantive Amendment: July 7, 2011**

5 **Notice of Continuation: March 4, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: _____ Date filed: _____
 State Admin Rule Filing Key: 155779
 Utah Admin. Code ref. (R no.): R307-204

Agency Information

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Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Mark Berger	801-536-4000	801-536-0085	mberger@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
 Emission Standards: Smoke Management

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
 Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source." Rule R307-204 protects the public health by controlling the release and impact of particulate pollution associated with prescribed and controlled fires in the State of Utah. Rule R307-204 also describes the operational procedures to follow when prescribed fires, wildland fires, or wildland fire use events take place on specific lands in Utah owned or managed by state and federal land management agencies. Rule R307-204 does not apply to agricultural activities specified in Section 19-2-114.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
 Since the last 5-year review one comment was submitted by EPA that identified a typographical error. That error was corrected in an amendment to the rule in 2011 (DAR# 34559).

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:

Rule R307-204 protects the public health by controlling the release and impact of particulate pollution associated with prescribed and controlled fires in the State of Utah. Under Rule R307-204, prescribed fires requiring a burn plan cannot be ignited and wildland fire use events cannot be managed before the director approves or conditionally approves the burn request. Smoke has also become the dominant public complaint, further supporting the need for this regulation. Therefore, this rule should be continued. In addition, R307-204 is a component of Utah's State Implementation Plan, and it cannot be deleted without EPA approval.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air quality, smoke, wildland fire, land manager

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

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

2 **R307-205. Emission Standards: Fugitive Emissions and Fugitive**
3 **Dust.**

4 **R307-205-1. Purpose.**

5 R307-205 establishes minimum work practices and emission
6 standards for sources of fugitive emissions and fugitive dust for
7 sources located in all areas in the state except those listed in section
8 IX, Part H of the state implementation plan or located in a PM10
9 nonattainment or maintenance area.

10
11 **R307-205-2. Applicability.**

12 R307-205 applies statewide to all sources of fugitive emissions
13 and fugitive dust, except for agricultural or horticultural activities
14 specified in 19-2-114(1)-(3) and any source listed in section IX,
15 Part H of the state implementation plan or located in a PM10
16 nonattainment or maintenance area.

17
18 **R307-205-3. Definitions.**

19 The following definition applies throughout R307-205:

20 "Material" means sand, gravel, soil, minerals or other matter
21 that may create fugitive dust.

22
23 **R307-205-4. Fugitive Emissions.**

24 Fugitive emissions from sources which were constructed on or
25 before April 25, 1971, shall not exceed 40% opacity. Fugitive
26 emissions from sources constructed or modified after April 25, 1971,
27 shall not exceed 20% opacity.

28
29 **R307-205-5. Fugitive Dust.**

30 (1) Storage and Handling of Materials. Any person owning,
31 operating or maintaining a new or existing material storage, handling
32 or hauling operation shall minimize fugitive dust from such an
33 operation. Such control may include the use of enclosures, covers,
34 stabilization or other equivalent methods or techniques as approved
35 by the director.

36 (2) Construction and Demolition Activities.

37 (a) Any person engaging in clearing or leveling of land greater
38 than one-quarter acre in size, earthmoving, excavation, or movement
39 of trucks or construction equipment over cleared land greater than
40 one-quarter acre in size or access haul roads shall take steps to
41 minimize fugitive dust from such activities. Such control may include
42 watering and chemical stabilization of potential fugitive dust sources
43 or other equivalent methods or techniques approved by the director.

44 (b) The owner or operator of any land area greater than
45 one-quarter acre in size that has been cleared or excavated shall
46 take measures to prevent fugitive particulate matter from becoming
47 airborne. Such measures may include:

- 48 (i) planting vegetative cover,
49 (ii) providing synthetic cover,
50 (iii) watering,
51 (iv) chemical stabilization,

1 (v) wind breaks, or
2 (vi) other equivalent methods or techniques approved by the
3 director.

4 (c) Any person engaging in demolition activities including
5 razing homes, buildings, or other structures or removing paving
6 material from roads or parking areas shall take steps to minimize
7 fugitive dust from such activities. Such control may include watering
8 and chemical stabilization or other equivalent methods or techniques
9 approved by the director.

10 11 **R307-205-6. Roads.**

12 (1) The director may require persons owning, operating or
13 maintaining any new or existing road, or having right-of-way easement
14 or possessory right to use the same, to supply traffic count
15 information as determined necessary to ascertain whether or not
16 control techniques are adequate or additional controls are necessary.

17 (2) Any person who deposits materials that may create fugitive
18 dust on a public or private paved road shall clean the road promptly.

19 20 **R307-205-7. Mining Activities.**

21 (1) Fugitive dust, construction activities, and roadways
22 associated with mining activities are regulated under the provisions
23 of R307-205-7 and not by R307-205-5 and 6.

24 (2) Any person who owns or operates a mining operation shall
25 minimize fugitive dust as an integral part of site preparation, mining
26 activities, and reclamation operations.

27 (3) The fugitive dust control measures to be used may include:

28 (a) periodic watering of unpaved roads,

29 (b) chemical stabilization of unpaved roads,

30 (c) paving of roads,

31 (d) prompt removal of coal, rock minerals, soil, and other
32 dust-forming debris from roads and frequent scraping and compaction
33 of unpaved roads to stabilize the road surface,

34 (e) restricting the speed of vehicles in and around the mining
35 operation,

36 (f) revegetating, mulching, or otherwise stabilizing the
37 surface of all areas adjoining roads that are a source of fugitive
38 dust,

39 (g) restricting the travel of vehicles on other than established
40 roads,

41 (h) enclosing, covering, watering, or otherwise treating loaded
42 haul trucks and railroad cars, to minimize loss of material to wind
43 and spillage,

44 (i) substitution of conveyor systems for haul trucks and
45 covering of conveyor systems when conveyed loads are subject to wind
46 erosion,

47 (j) minimizing the area of disturbed land,

48 (k) prompt revegetation of regraded lands,

49 (l) planting of special windbreak vegetation at critical points
50 in the permit area,

51 (m) control of dust from drilling, using water sprays, hoods,

1 dust collectors or other controls approved by the director,
2 (n) restricting the areas to be blasted at any one time,
3 (o) reducing the period of time between initially disturbing
4 the soil and revegetating or other surface stabilization,
5 (p) restricting fugitive dust at spoil and coal transfer and
6 loading points,
7 (q) control of dust from storage piles through use of
8 enclosures, covers, or stabilization and other equivalent methods
9 or techniques as approved by the director, or
10 (r) other techniques as determined necessary by the director.
11

12 **R307-205-8. Tailings Piles and Ponds.**

13 (1) Fugitive dust, construction activities, and roadways
14 associated with tailings piles and ponds are regulated under the
15 provisions of R307-205-8 and not by R307-205-5 and 6.

16 (2) Any person owning or operating an existing tailings
17 operation where fugitive dust results from grading, excavating,
18 depositing, or natural erosion or other causes in association with
19 such operation shall take steps to minimize fugitive dust from such
20 activities. Such controls may include:

21 (a) watering,
22 (b) chemical stabilization,
23 (c) synthetic covers,
24 (d) vegetative covers,
25 (e) wind breaks,
26 (f) minimizing the area of disturbed tailings,
27 (g) restricting the speed of vehicles in and around the tailings
28 operation, or
29 (h) other equivalent methods or techniques which may be
30 approvable by the director.
31

32 **KEY: air pollution, fugitive emissions, mining, tailings**

33 **Date of Enactment or Last Substantive Amendment: July 7, 2005**

34 **Notice of Continuation: March 4, 2010**

35 **Authorizing, and Implemented or Interpreted Law: 19-2-101; 19-2-104;**
36 **19-2-109**

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:		Date filed:	
State Admin Rule Filing Key:	155818		
Utah Admin. Code ref. (R no.):	R307-205		

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality

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Mailing address 2:

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Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
-------	--------	------	---------	---------

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Standards: Fugitive Emissions and Fugitive Dust

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:

The Air Quality Board is required by Subsection 19-2-101(2) to "...achieve and maintain levels of air quality which will protect human health and safety..." In addition, Subsection 19-2-104(1)(a) allows the Board to make rules "regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source..." Also, Subsection 19-2-109(2)(a) allows the Board to "establish emission control requirements by rule that in its judgment may be necessary to prevent, abate, or control air pollution that may be statewide or may vary from area to area, taking into account varying local conditions." Finally, Subsection 19-2-104(3)(e) allows the Board to "...prepare and develop a comprehensive plan or plans for the prevention, abatement, and control of air pollution in this state." Rule R307-205 protects the public health by reducing emissions from industries, gravel pits, constructions sites, haul trucks, mines, and tailings ponds, as authorized by the above statutes.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
No comments were received since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in

opposition to the rule, if any:

Rule R307-205 reduces emissions from industries, gravel pits, constructions sites, haul trucks, mines, and tailings ponds. In addition, dust complaints make up a significant portion of complaints received by the Division of Air Quality. Therefore, this rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, mining, fugitive emissions, tailings

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

R307. Environmental Quality, Air Quality.**R307-206. Emission Standards: Abrasive Blasting.****R307-206-1. Purpose.**

R307-206 establishes work practice and emission standards for abrasive blasting operations for sources located statewide except for those sources listed in section IX, Part H of the state implementation plan or located in a PM10 nonattainment or maintenance area.

R307-206-2. Definitions.

(1) The following additional definitions apply to R307-206:

"Abrasive Blasting" means the operation of cleaning or preparing a surface by forcibly propelling a stream of abrasive material against the surface.

"Abrasive Blasting Equipment" means any equipment utilized in abrasive blasting operations.

"Confined Blasting" means any abrasive blasting conducted in an enclosure which significantly restricts air contaminants from being emitted to the ambient atmosphere, including but not limited to shrouds, tanks, drydocks, buildings and structures.

"Multiple Nozzles" means a group of two or more nozzles being used for abrasive cleaning of the same surface in such close proximity that their separate plumes are indistinguishable.

"Unconfined Blasting" means any abrasive blasting which is not confined blasting as defined above.

R307-206-3. Applicability.

R307-206 applies statewide to any abrasive blasting operation, except for any source that is listed in Section IX, Part H of the state implementation plan or that is located in a PM10 nonattainment or maintenance area.

R307-206-4. Visible Emission Standards.

Visible emissions from abrasive blasting operations shall not exceed 40% opacity, except for an aggregate period of three minutes in any one hour.

R307-206-5. Visible Emission Evaluation Techniques.

(1) Visible emissions shall be measured using EPA Method 9. Visible emissions from intermittent sources shall use procedures similar to Method 9, but the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply.

(2) Visible emissions from unconfined blasting shall be measured at the densest point of the emission after a major portion of the spent abrasive has fallen out, at a point not less than five feet nor more than twenty-five feet from the impact surface from any single abrasive blasting nozzle.

(3) An unconfined blasting operation that uses multiple nozzles shall be considered a single source unless it can be demonstrated by the owner or operator that each nozzle, measured separately, meets the emission and performance standards provided in R307-206-2 through 4.

1 (4) Visible emissions from confined blasting shall be measured
2 at the densest point after the air contaminant leaves the enclosure.

3

4 **KEY: air pollution, abrasive blasting, PM10**

5 **Date of Enactment or Last Substantive Amendment: July 7, 2005**

6 **Notice of Continuation: March 4, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:	Date filed:
State Admin Rule Filing Key: 155819	
Utah Admin. Code ref. (R no.): R307-206	

Agency Information

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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Standards: Abrasive Blasting

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Rule R307-206 sets forth performance standards and maximum concentration of contaminants allowed in the air for operations that clean or prepare a surface by forcefully propelling a stream of abrasive material against the surface. Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
No comments have been received since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
This rule protects the health of citizens when abrasive blasting operations are underway and should be continued. In addition, this rule is a component of Utah's State Implementation Plan (SIP), and it cannot be deleted from the SIP without EPA's approval.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, PM10, abrasive blasting

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

R307. Environmental Quality, Air Quality.**R307-207. Residential Fireplaces and Solid Fuel Burning Devices.****R307-207-1. Purpose and Definition.**

R307-207 establishes emission standards for residential fireplaces and solid fuel burning devices.

"Solid fuel burning device" means any device used for burning wood, coal, or any other nongaseous and non-liquid fuel, including, but not limited to, wood stoves, but excluding outdoor wood boilers, which are regulated under R307-208.

R307-207-2. Applicability.

(1) R307-207 applies to residential fireplaces and solid fuel burning devices in all areas of the state, except for PM10 and PM2.5 nonattainment and maintenance areas. R307-302 applies to PM10 and PM2.5 nonattainment or maintenance areas.

R307-207-3. Opacity for Residential Heating.

Visible emissions from residential solid fuel burning devices and fireplaces shall be limited to a shade or density no darker than 20% opacity as measured by EPA Method 9, except for the following:

- (1) An initial fifteen minute start-up period, and
- (2) A period of fifteen minutes in any three-hour period in which emissions may exceed the 20% opacity limitation for refueling.

KEY: fireplaces, residential, solid fuel burning

Date of Enactment or Last Substantive Amendment: November 8, 2012

Notice of Continuation: March 4, 2010

Authorizing, and Implemented or Interpreted Law: 19-2-101; 19-2-104

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 155820
Utah Admin. Code ref. (R no.): R307-207

Agency Information

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Contact person(s):

Table with 5 columns: Name, Phone, Fax, E-mail, Remove. Row 1: Mark Berger, 801-536-4000, 801-536-0085, mberger@utah.gov, [Remove]

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Emission Standards: Residential Fireplaces and Stoves

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Rule R307-207 establishes visible emission from residential solid fuel burning devices and fireplaces. The Air Quality Board is required by Subsection 19-2-101(2) to "...achieve and maintain levels of air quality which will protect human health and safety...." In addition, Subsection 19-2-104(1)(a) allows the Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source...."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
No comments were received regarding R307-207 since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
Rule R307-207 establishes visible emission standards necessary to control PM10 throughout Utah. In addition, this rule is a component of Utah's State Implementation Plan (SIP), and it cannot be deleted from the SIP without EPA's approval. Therefore, this rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
fireplaces, residential, solid fuel burning, air quality

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 12/02/2014

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

2 **R307-305. Nonattainment and Maintenance Areas for PM10: Emission**
3 **Standards.**

4 **R307-305-1. Purpose.**

5 This rule establishes emission standards and work practices for
6 sources located in PM10 nonattainment and maintenance areas to meet
7 the reasonably available control measures requirement in section
8 189(a)(1)(C) of the Act.
9

10 **R307-305-2. Applicability.**

11 The requirements of R307-305 apply to the owner or operator of
12 any source that is listed in Section IX, Part H of the state
13 implementation plan or located in a PM10 nonattainment or maintenance
14 area.
15

16 **R307-305-3. Visible Emissions.**

17 (1) Visible emissions from existing installations except diesel
18 engines shall be of a shade or density no darker than 20% opacity.
19 Visible emissions shall be measured using EPA Method 9.

20 (2) No owner or operator of a gasoline engine or vehicle shall
21 allow, cause or permit the emissions of visible contaminants.

22 (3) Emissions from diesel engines, except locomotives, shall
23 be of a shade or density no darker than 20% opacity, except for starting
24 motion no farther than 100 yards or for stationary operation not
25 exceeding three minutes in any hour.

26 (4) Visible emissions exceeding the opacity standards for short
27 time periods as the result of initial warm-up, soot blowing, cleaning
28 of grates, building of boiler fires, cooling, etc., caused by start-up
29 or shutdown of a facility, installation or operation, or unavoidable
30 combustion irregularities which do not exceed three minutes in length
31 (unavoidable combustion irregularities which exceed three minutes
32 in length must be handled in accordance with R307-107), shall not
33 be deemed in violation provided that the director finds that adequate
34 control technology has been applied. The owner or operator shall
35 minimize visible and non-visible emissions during start-up or shutdown
36 of a facility, installation, or operation through the use of adequate
37 control technology and proper procedures.
38

39 **R307-305-4. Particulate Emission Limitations and Operating**
40 **Parameters (PM10).**

41 Any source with emission limits included in Section IX, Part
42 H, of the Utah state implementation plan shall comply with those
43 emission limitations and operating parameters. Specific limitations
44 will be set by the director, through an approval order issued under
45 R307-401, for installations within a source that do not have
46 limitations specified in the state implementation plan.
47

48 **R307-305-5. Compliance Testing (PM10).**

49 Compliance testing for PM10, sulfur dioxide, and oxides of
50 nitrogen emission limitations shall be done in accordance with Section
51 IX, Part H of the state implementation plan. PM10 compliance shall

1 be determined from the results of EPA test method 201 or 201a. A
2 backhalf analysis shall be performed for inventory purposes for each
3 PM10 compliance test in accordance with Method 202, or other
4 appropriate EPA approved reference method.
5

6 **R307-305-6. Automobile Emission Control Devices.**

7 Any person owning or operating any motor vehicle or motor vehicle
8 engine registered in the State of Utah on which is installed or
9 incorporated a system or device for the control of crankcase emissions
10 or exhaust emissions in compliance with the Federal motor vehicle
11 rules, shall maintain the system or device in operable condition and
12 shall use it at all times that the motor vehicle or motor vehicle
13 engine is operated. No person shall remove or make inoperable within
14 the State of Utah the system or device or any part thereof, except
15 for the purpose of installing another system or device, or part
16 thereof, which is equally or more effective in reducing emissions
17 from the vehicle to the atmosphere.
18

19 **R307-305-7. Compliance Schedule for New Nonattainment Areas.**

20 The provisions of R307-305 shall apply to the owner or operator
21 of a source that is located in any new PM10 nonattainment area 180
22 days after the area is officially designated a nonattainment area
23 for PM10 by the Environmental Protection Agency. Provisions of
24 R307-201 shall continue to apply to the owner or operator of a source
25 during this transition period.
26

27 **KEY: air pollution, particulate matter, PM10, PM 2.5**

28 **Date of Enactment or Last Substantive Amendment: September 2, 2005**

29 **Notice of Continuation: June 2, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:	Date filed:
State Admin Rule Filing Key: 155913	
Utah Admin. Code ref. (R no.): R307-305	

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality

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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Nonattainment and Maintenance areas for PM10: Emission Standards

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
Rule R307-305 sets visible emission limits, testing methods and schedules, and compliance schedules for sources of air pollution that are regulated under Utah's PM10 state implementation plan to protect public health. Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
There have been no comments on this rule since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
Emission limits and testing of emissions, which this rule outlines, help to ensure that industrial facilities are operating properly and emitting the least possible pollution to protect human health. Additionally R307-305 is a component of Utah's State Implementation Plan and cannot be deleted without EPA approval. Therefore, this rule should be

continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, PM10, particulate matter, PM2.5

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/14/2015

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

2 **R307-306. PM10 Nonattainment and Maintenance Areas: Abrasive**
3 **Blasting.**

4 **R307-306-1. Purpose.**

5 This rule establishes requirements that apply to abrasive
6 blasting operations in PM10 nonattainment and maintenance areas.
7

8 **R307-306-2. Definitions.**

9 The following additional definitions apply to R307-306.

10 "Abrasive Blasting" means the operation of cleaning or preparing
11 a surface by forcibly propelling a stream of abrasive material against
12 the surface.

13 "Abrasive Blasting Equipment" means any equipment used in
14 abrasive blasting operations.

15 "Abrasives" means any material used in abrasive blasting
16 operations including but not limited to sand, slag, steel shot, garnet
17 or walnut shells.

18 "Confined Blasting" means any abrasive blasting conducted in
19 an enclosure that significantly restricts air contaminants from being
20 emitted to the ambient atmosphere, including but not limited to
21 shrouds, tanks, drydocks, buildings and structures.

22 "Hydroblasting" means any abrasive blasting using high pressure
23 liquid as the propelling force.

24 "Multiple Nozzles" means a group of two or more nozzles used
25 for abrasive cleaning of the same surface in such close proximity
26 that their separate plumes are indistinguishable.

27 "Unconfined Blasting" means any abrasive blasting that is not
28 confined blasting as defined above.

29 "Wet Abrasive Blasting" means any abrasive blasting using
30 compressed air as the propelling force and sufficient water to minimize
31 the plume.
32

33 **R307-306-3. Applicability.**

34 R307-306 applies to any person who operates abrasive blasting
35 equipment in a PM10 nonattainment or maintenance area, or to sources
36 listed in Section IX, Part H of the state implementation plan.
37

38 **R307-306-4. Visible Emission Standard.**

39 (1) Except as provided in (2) below, visible emissions from
40 abrasive blasting operations shall not exceed 20% opacity except for
41 an aggregate period of three minutes in any one hour.

42 (2) If the abrasive blasting operation complies with the
43 performance standards in R307-306-6, visible emissions from the
44 operation shall not exceed 40% opacity, except for an aggregate period
45 of 3 minutes in any one hour.
46

47 **R307-306-5. Visible Emission Evaluation Techniques.**

48 (1) Visible emissions shall be measured using EPA Method 9.
49 Visible emissions from intermittent sources shall use procedures
50 similar to Method 9, but the requirement for observations to be made
51 at 15 second intervals over a six minute period shall not apply.

1 (2) Visible emissions from unconfined blasting shall be
2 measured at the densest point of the emission after a major portion
3 of the spent abrasive has fallen out at a point not less than five
4 feet nor more than twenty-five feet from the impact surface from any
5 single abrasive blasting nozzle.

6 (3) An unconfined blasting operation that uses multiple nozzles
7 shall be considered a single source unless it can be demonstrated
8 by the owner or operator that each nozzle, measured separately, meets
9 the visible emission standards in R307-306-4.

10 (4) Emissions from confined blasting shall be measured at the
11 densest point after the air contaminant leaves the enclosure.

12
13 **R307-306-6. Performance Standards.**

14 (1) To satisfy the requirements of R307-306-4(2), the abrasive
15 blasting operation shall use at least one of the following performance
16 standards:

17 (a) confined blasting;

18 (b) wet abrasive blasting;

19 (c) hydroblasting; or

20 (d) unconfined blasting using abrasives as defined in (2) below.

21 (2) Abrasives.

22 (a) Abrasives used for dry unconfined blasting referenced in
23 (1) above shall comply with the following performance standards:

24 (i) Before blasting, the abrasive shall not contain more than
25 1% by weight material passing a #70 U.S. Standard sieve.

26 (ii) After blasting the abrasive shall not contain more than
27 1.8% by weight material 5 microns or smaller.

28 (b) Abrasives reused for dry unconfined blasting are exempt
29 from (a)(ii) above, but must conform with (a)(i) above.

30 (3) Abrasive Certification. Sources using the performance
31 standard of (1)(d) above to meet the requirements of R307-306-4(2)
32 must demonstrate they have obtained abrasives from a supplier who
33 has certified (submitted test results) to the director at least
34 annually that such abrasives meet the requirements of (2) above.

35
36 **R307-306-7. Compliance Schedule.**

37 The provisions of R307-306 shall apply in any new PM10
38 nonattainment area 180 days after the area is officially designated
39 a nonattainment area for PM10 by the Environmental Protection Agency.

40 Provisions of R307-206 shall continue to apply to the owner or
41 operator of a source during this transition period.

42
43 **KEY: air pollution, abrasive blasting, PM10**

44 **Date of Enactment or Last Substantive Amendment: September 2, 2005**

45 **Notice of Continuation: June 2, 2010**

46 **Authorizing, and Implemented or Interpreted Law: 19-2-101(1)(a)**

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no:	Date filed:
State Admin Rule Filing Key: 155914	
Utah Admin. Code ref. (R no.): R307-306	

Agency Information

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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
PM10 Nonattainment and Maintenance Areas: Abrasive Blasting

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
This rule establishes requirements that apply to abrasive blasting operations in PM10 nonattainment and maintenance areas. Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
There have been no comments on this rule since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
This rule outlines emission limits that help to ensure that industrial facilities are operating properly and emitting the least possible pollution to protect human health and the environment. This rule is also part of the EPA enforceable SIP and cannot be deleted without EPA approval. Therefore, this rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, abrasive blasting, PM10

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/14/2015

1 R307. Environmental Quality, Air Quality.**2 R307-307. Road Salting and Sanding.****3 R307-307-1. Applicability.**

4 R307-307 applies to all persons who apply salt or abrasives such
5 as crushed slag and sand to roads in PM10 and PM2.5 nonattainment
6 and maintenance areas as defined in 40 CFR 81.345 (July 1, 2011) and
7 geographically described as all regions of Davis, Salt Lake, and Utah
8 counties; all portions of the Cache Valley; all regions in Weber County
9 west of the Wasatch mountain range; in Box Elder County, from the
10 Wasatch mountain range west to the Promontory mountain range and south
11 of Portage; and in Tooele County, from the northernmost part of the
12 Oquirrh mountain range to the northern most part of the Stansbury
13 mountain range and north of Route 199.

14 R307-307-2. Definitions.

15 The following additional definition applies to R307-307:

16 "Arterial roadway" has the same meaning as outlined in U.S. DOT
17 Federal Highway Administration Publication No. FHWA-ED-90-006,
18 Revised March 1989, "Highway Functional Classification: Concepts,
19 Criteria, and Procedures" as interpreted by Utah Department of
20 Transportation and shown in the following maps: Salt Lake Urbanized
21 Area, Provo-Orem Urbanized Area, and Ogden Urbanized Area (1992 or
22 later).
23

24 R307-307-3. Records.

25 (1) Any person who applies salt or abrasives such as crushed
26 slag and sand to roads in PM10 and PM2.5 nonattainment and maintenance
27 areas shall maintain records of the material applied.
28

29 (a) For salt, the records shall include the quantity applied,
30 the percent by weight of insoluble solids in the salt, and the
31 percentage of the material that is sodium chloride (NaCl), magnesium
32 chloride (MgCl₂), calcium chloride (CaCl₂), or potassium chloride
33 (KCl).

34 (b) For abrasives such as sand or crushed slag, the records
35 shall include the quantity applied and the percent by weight of fine
36 material which passes the number 200 sieve in a standard gradation
37 analysis.

38 (2) All records shall be maintained for a period of at least
39 two years, and the records shall be made available to the director
40 or his designated representative upon request.
41

42 R307-307-4. Content.

43 (1) After October 1, 1993, any salt applied to roads in Salt
44 Lake, Davis, or Utah counties shall be at least 92% NaCl, MgCl₂, CaCl₂,
45 and/or KCl.

46 (2) After January 1, 2014, any salt applied to roads in all
47 other areas specified in R307-307-1 shall be no less than 92% by weight
48 NaCl, MgCl₂, CaCl₂, and/or KCl.
49

50 R307-307-5. Alternatives.

51 (1) After October 1, 1993, any person who applies an abrasive

1 such as crushed slag, or sand or who applies salt that is less than
2 92% by weight NaCl, MgCl₂, CaCl₂ and/or KCl to roads in Salt Lake,
3 Davis, or Utah Counties shall either:

4 (a) demonstrate to the director that the material applied has
5 no more PM₁₀ or PM_{2.5} emissions than salt which is at least 92% NaCl,
6 MgCl₂, CaCl₂, and/or KCl; or

7 (b) vacuum sweep every arterial roadway (principal and minor)
8 to which the material was applied within three days of the end of
9 the storm for which the application was made.

10 (2) After January 1, 2014, any person who applies an abrasive
11 such as crushed slag or sand, or who applies salt that is less than
12 92% by weight NaCl, MgCl₂, and/or CaCl₂ to roads in all other areas
13 specified in R307-307-1 shall comply with the requirements of either
14 R307-307-5(1)(a) or (b).

15
16 **R307-307-6. Exemptions.**

17 (1) In the interest of public safety, any person who applies
18 an abrasive such as crushed slag or sand to arterial roadways because
19 salt alone would not ensure safe driving conditions due to steepness
20 of grade or extreme weather is exempt from the requirements in
21 R307-307-4.

22 (2) The following roads are specifically excluded from the
23 requirements of R307-307-5(1):

24 (a) all canyon roads;

25 (b) the portion of Interstate 15 near Point of the Mountain;

26 (c) I-15, from Exit 385 northward to the Idaho Border;

27 (d) I-84 from Exit 17 eastward to Exit 40 at Tremonton;

28 (e) SR-39 from Harrison Boulevard eastward into Ogden Canyon;

29 (f) I-84 from the junction with US-89 eastward into Weber
30 Canyon;

31 (g) I-80 near Black Rock, from the junction with SR-36 to the
32 junction with SR-202;

33 (h) SR-199; and

34 (i) SR-196.

35
36 **KEY: air pollution, roads, particulate**

37 **Date of Enactment or Last Substantive Amendment: February 1, 2013**

38 **Notice of Continuation: June 2, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: _____ Date filed: _____
 State Admin Rule Filing Key: 155915
 Utah Admin. Code ref. (R no.): R307-307

Agency Information

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Rule Title

2. Title of rule or section (catchline):
 Road Salting and Sanding

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
 Rule R307-307 sets limits on the sodium chloride, magnesium chloride, calcium chloride, and potassium chloride that may be included in salt used on roads. The limits are needed to reduce the particulate matter that is harmful to human health, and are one of the measures included in Utah's state implementation plan for PM10 and PM2.5. Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
 R307-307 has been amended three times since the last five-year review with nonsubstantive changes in 2012 (DAR# 36628), substantive changes in 2013 (DAR# 36741), and nonsubstantive changes later in 2013 (DAR# 37234). Comments were submitted in 2013 regarding the substantive changes being proposed. Those comments were from the Utah Department of Transportation and the Environmental Protection Agency. All comments were suggestions to improve the proposed amendments. No comments were submitted opposing the rule.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
The limits in this rule are needed to reduce particulate matter, and are one of the measures included in Utah's State Implementation Plan for PM10 and PM2.5 and cannot be deleted without EPA's approval. Therefore, the rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollutino, roads, particulate matter

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/14/2015

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

2 **R307-309. Nonattainment and Maintenance Areas for PM10 and PM2.5:**
3 **Fugitive Emissions and Fugitive Dust.**

4 **R307-309-1. Purpose.**

5 This rule establishes minimum work practices and emission
6 standards for sources of fugitive emissions and fugitive dust.

7
8 **R307-309-2. Definitions.**

9 The following additional definition applies to R307-309:

10 "Material" means sand, gravel, soil, minerals, and other matter
11 that may create fugitive dust.

12
13 **R307-309-3. Applicability.**

14 (1) Applicability. R307-309 applies to all sources of fugitive
15 dust and fugitive emissions located in PM10 and PM2.5 nonattainment
16 and maintenance plan areas as defined in 40 CFR 81.345 (July 1, 2011),
17 except as specified in R307-309-3(2).

18 (2) Exemptions.

19 (a) Agriculturally derived fugitive dust sources, including
20 agricultural or horticultural activities specified in 19-2-114
21 (1)-(3) are exempt from the provisions of R307-309.

22 (b) Any activity subject to R307-307 is exempt from R307-309-7.

23
24 **R307-309-4. Fugitive Emissions.**

25 (1) Fugitive emissions from any source shall not exceed 15%
26 opacity.

27 (2) Opacity observations of fugitive emissions from stationary
28 sources shall be conducted in accordance with EPA Method 9.

29 (3) For intermittent sources and mobile sources, opacity
30 observations shall be conducted using Method 9; however, the
31 requirement for observations to be made at 15 second intervals over
32 a six-minute period shall not apply.

33
34 **R307-309-5. General Requirements for Fugitive Dust.**

35 (1) Except as provided in R307-309-5(3), opacity caused by
36 fugitive dust shall not exceed:

37 (a) 10% at the property boundary; and

38 (b) 20% on site

39 (2) Any person owning or operating a new or existing source
40 of fugitive dust one-quarter acre or greater in size shall submit
41 a fugitive dust control plan to the director in accordance with
42 R307-309-6.

43 (3) Opacity in R307-309-5(1) shall not apply when the wind speed
44 exceeds 25 miles per hour if the owner or operator has implemented,
45 and continues to implement, the accepted fugitive dust control plan
46 in R307-309-6 and administers at least one of the following contingency
47 measures:

48 (a) Pre-event watering;

49 (b) Hourly watering;

50 (c) Additional chemical stabilization; or

51 (d) Cease or reduce fugitive dust producing operations.

1 (e) Other contingency measure approved by the director.

2 (4) Wind speed may be measured by a hand-held anemometer or
3 equivalent device.

4 (5) Opacity observations of fugitive dust from any source shall
5 be measured at the densest point of the plume.

6 (a) For mobile sources, visible emissions shall be measured
7 at a point not less than 1/2 vehicle length behind the vehicle and
8 not less than 1/2 the height of the vehicle.

9 (b) Opacity observations of emissions from stationary sources
10 shall be measured in accordance with EPA Method 9.

11 (c) For intermittent sources, opacity observations shall be
12 conducted using Method 9; however, the requirement for observations
13 to be made at 15 second intervals over a six-minute period shall not
14 apply.

15

16 **R307-309-6. Fugitive Dust Control Plan.**

17 (1) Any person owning or operating a new or existing source
18 of fugitive dust, including storage, hauling or handling operations,
19 clearing or leveling of land one-quarter acre or greater in size,
20 earthmoving, excavation, moving trucks or construction equipment over
21 cleared land one-quarter acre or greater in size or access haul roads,
22 or demolition activities including razing homes, buildings or other
23 structures, shall submit a fugitive dust control plan on a form
24 provided by the director or another format approved by the director.

25 (a) A fugitive dust control plan that has been submitted to
26 and accepted by the director prior to December 3, 2012, will fulfill
27 the requirements of R307-309-6.

28 (2) Activities regulated by R307-309 shall not commence before
29 the fugitive dust control plan is approved by the director.

30 (a) Successful completion of the web-based division-sponsored
31 fugitive dust control plan tool shall constitute plan approval.

32 (b) Hard copy fugitive control plan submission must be reviewed
33 and approved by the director prior to commencing activities regulated
34 by R307-309.

35 (3) Sources with an existing fugitive dust control plan who
36 make site modifications that result in emission changes shall submit
37 an updated fugitive dust control plan.

38 (4) Minimum fugitive dust control plan requirements. At a
39 minimum, a fugitive dust control plan must include the following
40 requirements as they apply to a source:

41 (a) Backfilling.

42 (i) Stabilize backfill material when not actively handling.

43 (ii) Stabilize backfill material during handling.

44 (iii) Stabilize soil at completion of backfilling activity.

45 (iv) Stabilize material while using pipe padder equipment.

46 (b) Blasting.

47 (i) Stabilize surface soils where drills, support equipment
48 and vehicles will operate.

49 (ii) Stabilize soil during blast preparation activities.

50 (iii) Stabilize soil after blasting.

51 (c) Clearing.

- 1 (i) Stabilize surface soils where support equipment and
2 vehicles will operate.
- 3 (ii) Stabilize disturbed soil immediately after clearing and
4 grubbing activities.
- 5 (iii) Stabilize slopes at completion of activity.
- 6 (d) Clearing forms, foundations and slabs.
- 7 (i) Use water, sweeping and vacuum to clear.
- 8 (e) Crushing.
- 9 (i) Stabilize surface soils where support equipment and
10 vehicles will operate.
- 11 (ii) Stabilize material before, during and after crushing.
- 12 (iii) Traffic mileage or speed controls.
- 13 (iv) Minimize transfer height.
- 14 (f) Cut and fill.
- 15 (i) Stabilize surface soils where support equipment and
16 vehicles will operate.
- 17 (ii) Pre-water soils.
- 18 (iii) Stabilize soil during and after cut activities.
- 19 (g) Demolition-implosion.
- 20 (i) Stabilize surface area where support equipment and vehicles
21 will be operated.
- 22 (ii) Stabilize demolition debris immediately following blast
23 and safety clearance.
- 24 (iii) Stabilize and clean surrounding area immediately
25 following blast and safety clearance.
- 26 (h) Demolition-mechanical and manual.
- 27 (i) Stabilize surface areas where support equipment and
28 vehicles will operate.
- 29 (ii) Stabilize demolition debris during handling.
- 30 (iii) Stabilize debris following demolition.
- 31 (iv) Stabilize surrounding area following demolition.
- 32 (i) Disturbed soil.
- 33 (i) Limit disturbance of soils where possible.
- 34 (ii) Stabilize and maintain stability of all disturbed soil
35 throughout construction site.
- 36 (j) Hauling materials.
- 37 (i) Limit visible dust opacity from vehicular operations.
- 38 (ii) Stabilize materials during transport on site.
- 39 (iii) Clean wheels and undercarriage of haul trucks prior to
40 leaving construction site.
- 41 (k) Paving subgrade preparation.
- 42 (i) Stabilize adjacent disturbed soils following paving
43 activities by applying water, chemical stabilizer and/or synthetic
44 cover.
- 45 (l) Sawing and cutting materials.
- 46 (i) Limit visible emissions using water or vacuum.
- 47 (m) Screening.
- 48 (i) Stabilize surface soils where support equipment and
49 vehicles will operate.
- 50 (ii) Pre-treat material prior to screening.
- 51 (iii) Stabilize material during screening.

- 1 (iv) Stabilize material and surrounding area immediately after
2 screening.
- 3 (v) Minimize transfer height.
- 4 (n) Staging areas.
- 5 (i) Limit visible dust opacity from vehicular operations.
- 6 (ii) Stabilize staging area soils during use.
- 7 (iii) Stabilize staging area soils at project completion.
- 8 (o) Stockpiling.
- 9 (i) Stabilize stockpile materials during and after handling.
- 10 (ii) Stabilize surface soils where support equipment and
11 vehicles will operate.
- 12 (p) Trackout prevention and cleanup.
- 13 (i) Install and maintain trackout control devices in effective
14 condition at all access points where paved and unpaved access or travel
15 routes intersect.
- 16 (q) Traffic on unpaved routes and parking areas.
- 17 (i) Stabilize surface soils where support equipment and
18 vehicles will operate.
- 19 (r) Trenching.
- 20 (i) Stabilize surface soils where trenching equipment, support
21 equipment and vehicles will operate.
- 22 (ii) Stabilize soils after trenching.
- 23 (s) Truck loading.
- 24 (i) Empty loader bucket slowly and keep loader bucket close
25 to the truck to minimize the drop height while dumping.
- 26 (ii) Stabilize surface soils where support equipment and
27 vehicles will operate.
- 28 (5) The fugitive dust control plan must include contact
29 information, site address, total area of disturbance, expected start
30 and completion dates, identification of dust suppressant and plan
31 certification by signature of a responsible person.

32
33 **R307-309-7. Storage, Hauling and Handling of Aggregate Materials.**

34 Any person owning, operating or maintaining a new or existing
35 material storage, handling or hauling operation shall prevent, to
36 the maximum extent possible, material from being deposited onto any
37 paved road other than a designated deposit site. Any such person
38 who deposits materials that may create fugitive dust on a public or
39 private paved road shall clean the road promptly.

40
41 **R307-309-8. Construction and Demolition Activities.**

42 Any person engaging in clearing or leveling of land with an area
43 of one-quarter acre or more, earthmoving, excavating, construction,
44 demolition, or moving trucks or construction equipment over cleared
45 land or access haul roads shall prevent, to the maximum extent
46 possible, material from being deposited onto any paved road other
47 than a designated deposit site. Any such person who deposits
48 materials that may create fugitive dust on a public or private paved
49 road shall clean the road promptly.

50
51 **R307-309-9. Roads.**

1 (1) Any person responsible for construction or maintenance of
2 any existing road or having right-of-way easement or possessing the
3 right to use the same whose activities result in fugitive dust from
4 the road shall minimize fugitive dust to the maximum extent possible.

5 Any such person who deposits materials that may create fugitive dust
6 on a public or private paved road shall clean the road promptly.

7 (2) Unpaved Roads. Any person responsible for construction
8 or maintenance of any new or existing unpaved road shall prevent,
9 to the maximum extent possible, the deposit of material from the
10 unpaved road onto any intersecting paved road during construction
11 or maintenance. Any person who deposits materials that may create
12 fugitive dust on a public or private paved road shall clean the road
13 promptly.

14
15 **R307-309-10. Mining Activities.**

16 (1) Fugitive dust, construction activities, and roadways
17 associated with mining activities are regulated under the provisions
18 of R307-309-10 and not by R307-309-6,7, 8, 9, and 11.

19 (2) Any person who owns or operates a mining operation shall
20 minimize fugitive dust as an integral part of site preparation, mining
21 activities, and reclamation operations.

22 (3) The fugitive dust control measures to be used shall include:

23 (a) Periodic watering of unpaved roads or;

24 (b) Use of chemical stabilizers on unpaved roads or;

25 (c) Paving of roads.

26 (d) Immediate removal of coal, rock minerals, soil, and other
27 dust-forming debris from roads and frequent scraping and compaction
28 of unpaved roads to stabilize the road surface.

29 (e) Restricting the speed of vehicles in and around the mining
30 operation,

31 (f) Revegetating, mulching, or otherwise stabilizing the
32 surface of all areas adjoining roads that are a source of fugitive
33 dust.

34 (g) Restricting the travel of vehicles on other than established
35 roads.

36 (h) Enclosing, covering, watering, or otherwise treating loaded
37 haul trucks and railroad cars, to minimize loss of material to wind
38 and spillage.

39 (i) Substitution of conveyor systems for haul trucks and
40 covering of conveyor systems when conveyed loads are subject to wind
41 erosion.

42 (j) Minimizing the area of disturbed land.

43 (k) Prompt revegetation of regraded lands.

44 (l) Planting of special windbreak vegetation at critical points
45 in the permit area.

46 (m) Control of dust from drilling, using water sprays, hoods,
47 dust collectors or other controls approved by the director.

48 (n) Restricting the areas to be blasted at any one time.

49 (o) Reducing the period of time between initially disturbing
50 the soil and revegetating or other surface stabilization.

51 (p) Restricting fugitive dust at spoil and coal transfer and

1 loading points.

2 (q) Control of dust from storage piles through use of
3 enclosures, covers, or stabilization and other equivalent methods
4 or techniques as approved by the director, or

5 (r) Other techniques as determined necessary by the director.

6 (4) Owners or operators shall submit a fugitive dust control
7 plan to the director on a form provided by the director or another
8 format approved by the director.

9 (a) Activities regulated by R307-309-10 shall not commence
10 before the fugitive dust control plan is approved by the director.

11 (b) A fugitive dust control plan that has been submitted to
12 and accepted by the director prior to December 3, 2012, will fulfill
13 the requirements of R307-309-10.

14 (c) Sources with an existing fugitive dust control plan that
15 make site modifications that result in emission changes shall submit
16 an updated fugitive dust control plan.

17 (d) The fugitive dust control plan shall include site location,
18 contact information, plot plan, total area of land to be disturbed,
19 sources of fugitive dust, types of dust suppressants, high wind
20 contingency measures, treatments for preventing trackout controls
21 and plan certification by signature of a responsible person.

22

23 **R307-309-11. Tailings Piles and Ponds.**

24 (1) Fugitive dust, construction activities, and roadways
25 associated with tailings piles and ponds are regulated under the
26 provisions of R307-309-11 and not by R307-309-6,7, 8, 9, and 10.

27 (2) Any person owning or operating an existing tailings
28 operation where fugitive dust results from grading, excavating,
29 depositing, or natural erosion or other causes in association with
30 such operation shall take steps to minimize fugitive dust from such
31 activities. Such controls shall include:

32 (a) Watering or;

33 (b) Chemical stabilization or;

34 (c) Synthetic covers or;

35 (d) Vegetative covers or;

36 (e) Wind breaks or;

37 (f) A combination of R307-309-11(2)(a)-(e);

38 (g) Minimizing the area of disturbed tailings;

39 (h) Restricting the speed of vehicles in and around the tailings
40 operation; or

41 (h) Other equivalent methods or techniques which may be
42 approvable by the director.

43 (3) Owners or operators shall submit a fugitive dust control
44 plan to the director.

45 (a) Activities regulated by R307-309-11 shall not commence
46 before the fugitive dust control plan is approved by the director.

47 (b) A fugitive dust control plan that has been submitted to
48 and accepted by the director prior to December 3, 2012, will fulfill
49 the requirements of R307-309-11.

50 (c) Sources with an existing fugitive dust control plan that
51 make site modifications that result in emission changes shall submit

1 an updated fugitive dust control plan.

2 (d) The fugitive dust control plan shall include site location,
3 contact information, plot plan, total area of land to be disturbed,
4 sources of fugitive dust, types of dust suppressants, high wind
5 contingency measures, treatments for preventing trackout controls
6 and plan certification by signature of a responsible person.

7

8 **R307-309-12. Record Keeping.**

9 All sources subject to R307-309-5(2) and (3) shall maintain
10 records demonstrating compliance with R307-309. These records shall
11 be available to the director upon request.

12

13 **R307-309-13. Compliance Schedule.**

14 (1) All sources within the applicable portions of Salt Lake
15 County, Utah County and the city of Ogden shall be in compliance with
16 R307-309 upon the effective date of this rule.

17 (2) All sources within the remaining areas described in
18 R307-309-3(1) shall be in compliance with R307-309-4 through 9 and
19 R307-309-12 within 30 days of the effective date of this rule and
20 shall be in compliance with R307-309-10 and 11 within 90 days of the
21 effectiveness of this rule.

22

23 **KEY: air pollution, fugitive dust**

24 **Date of Enactment or Last Substantive Amendment: January 1, 2013**

25 **Notice of Continuation: June 2, 2010**

26 **Authorizing, and Implemented or Interpreted Law: 19-2-101; 19-2-104;**
27 **19-2-109**

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: _____ Date filed: _____
 State Admin Rule Filing Key: 155916
 Utah Admin. Code ref. (R no.): R307-309

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality
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Contact person(s):

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Mark Berger	801-536-4000	801-536-0085	mberger@utah.gov	<input type="checkbox"/>

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
 Nonattainment and Maintenance Areas for PM10 and PM2.5: Fugitive Emissions and Fugitive Dust

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
 Rule R307-309 regulates the amount of dust and fugitive emissions that are allowed to leave the site of any source of air pollution. These regulations are part of the state implementation plan to control particulate matter in geographic areas where levels of pollution have exceeded federal health standards in the past; the plan is incorporated by reference under Section R307-110-10. The plan is required under the Clean Air Act, 42 U.S.C. 7410. Subsection 19-2-104(1) authorizes the Air Quality Board to make rules "(a) regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contamination that may be emitted by any air contaminant source"; and "b) establishing air quality standards." Subsection 19-2-104(3)(q) authorizes the Board to make rules to "meet the requirements of federal air pollution laws."

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
 The rule was amended once since the last five-year review (DAR# 36483). During that public comment period several comments were submitted by the Environmental Protection Agency (EPA) and other interested stakeholders. Comments submitted were suggestions to improve the proposed amendments and to make the rule approvable by EPA. No comments opposing the rule have been submitted.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
R307-309 protects the public health by reducing emissions from industries, gravel pits, constructions sites, haul trucks, mines, and tailings ponds. In addition, R307-309 is required under the State Implementation Plan (SIP) incorporated by reference under Section R307-110-10. Because the rule is part of the SIP, it cannot be deleted without EPA approval. Therefore, the rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, fugitive dust

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/14/2015

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

2 **R307-310. Salt Lake County: Trading of Emission Budgets for**
3 **Transportation Conformity.**

4 **R307-310-1. Purpose.**

5 This rule establishes the procedures that may be used to trade
6 a portion of the primary PM10 budget when demonstrating that a
7 transportation plan, transportation improvement program, or project
8 conforms with the motor vehicle emission budgets in the Salt Lake
9 County portion of Section IX, Part A of the State Implementation Plan,
10 "Fine Particulate Matter (PM10)"

11
12 **R307-310-2. Definitions.**

13 The definitions contained in 40 CFR 93.101, effective as of the
14 date referenced in R307-101-3, are incorporated into this rule by
15 reference. The following additional definitions apply to this rule.

16 "Budget" means the motor vehicle emission projections used in
17 the attainment demonstration in the Salt Lake County portion of Section
18 IX, Part A of the State Implementation Plan, "Fine Particulate Matter
19 (PM10)."

20 "NOx" means oxides of nitrogen.

21 "Primary PM10" means PM10 that is emitted directly by a source.

22 Primary PM10 does not include particulate matter that is formed when
23 gaseous emissions undergo chemical reactions in the ambient air.

24 "Transportation Conformity" means a demonstration that a
25 transportation plan, transportation improvement program, or project
26 conforms with the emissions budgets in a state implementation plan,
27 as outlined in 40 CFR, Chapter 1, Part 93, "Determining Conformity
28 of Federal Actions to State or Federal Implementation Plans."
29

30 **R307-310-3. Applicability.**

31 (1) This rule applies to agencies responsible for demonstrating
32 transportation conformity with the Salt Lake County portion of Section
33 IX, Part A of the State Implementation Plan, "Fine Particulate Matter
34 (PM10)."

35 (2) This rule does not apply to emission budgets from Section
36 IX, Part D.2 of the State Implementation Plan, "Ozone Maintenance
37 Plan."

38 (3) This rule does not apply to emission budgets from Section
39 IX, Part C.7 of the State Implementation Plan, "Carbon Monoxide
40 Maintenance Provisions."
41

42 **R307-310-4. Trading Between Emission Budgets.**

43 (1) The agencies responsible for demonstrating transportation
44 conformity are authorized to supplement the budget for NOx with a
45 portion of the budget for primary PM10 for the purpose of demonstrating
46 transportation conformity for NOx. The NOx budget shall be
47 supplemented using the following procedures.

48 (a) The metropolitan planning organization shall include the
49 following information in the transportation conformity demonstration:

50 (i) The budget for primary PM10 and NOx for each required year
51 of the conformity demonstration, before trading allowed by this rule

1 has been applied;

2 (ii) The portion of the primary PM10 budget that will be used
3 to supplement the NOx budget, specified in tons per day using a 1:1
4 ratio of primary PM10 to NOx, for each required year of the conformity
5 demonstration;

6 (iii) The remainder of the primary PM10 budget that will be
7 used in the conformity demonstration for primary PM10, specified in
8 tons per day for each required year of the conformity demonstration;
9 and

10 (iv) The budget for primary PM10 and NOx for each required year
11 of the conformity demonstration after the trading allowed by this
12 rule has been applied.

13 (b) Transportation conformity for NOx shall be demonstrated
14 using the NOx budget supplemented by a portion of the primary PM10
15 budget as described in (a)(ii). Transportation conformity for
16 primary PM10 shall be demonstrated using the remainder of the primary
17 PM10 budget described in (a)(iii).

18 (c) The primary PM10 budget shall not be supplemented by using
19 a portion of the NOx budget.

20

21 **R307-310-5. Transition Provision.**

22 R307-310, sections 1-4 will remain in effect until the day that
23 EPA approves the conformity budget in the PM10 maintenance plan adopted
24 by the board on July 6, 2005.

25

26 **KEY: air pollution, transportation conformity, PM10**

27 **Date of Enactment or Last Substantive Amendment: February 8, 2008**

28 **Notice of Continuation: June 2, 2010**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: _____ Date filed: _____
 State Admin Rule Filing Key: 155942
 Utah Admin. Code ref. (R no.): R307-310

Agency Information

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Name:	Phone:	Fax:	E-mail:	Remove:
Mark Berger	801-536-4000	801-536-0085	mberger@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
 Salt Lake County: Trading of Emission Budgets for Transportation Conformity

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
 Subsection 19-2-104(1)(a) allows the Air Quality Board to make rules "...regarding the control, abatement, and prevention of air pollution from all sources and the establishment of the maximum quantity of air contaminants that may be emitted by any air contaminant source." In addition, Subsection 19-2-104(3)(e) allows the Board to "...prepare and develop a comprehensive plan or plans for the prevention, abatement, and control of air pollution in this state."
 Rule R307-310 protects the public health by setting forth a mechanism to trade PM10 for NOx to demonstrate conformity with Salt Lake County PM10 SIP

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
 There have been no comments on this rule since the last five-year review.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:

Rule R307-310 establishes a conformity budget for Salt Lake County. This budget allows continued funding of transportation projects in Salt Lake County. R307-310 is a component of Utah's State Implementation Plan and cannot be deleted without EPA's approval.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
air pollution, transportation conformity, PM10

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/15/2015

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

2 **R307-841. Residential Property and Child-Occupied Facility**
3 **Renovation.**

4 **R307-841-1. Purpose.**

5 This rule contains regulations developed under Sections 402 and
6 406 of the Toxic Substances Control Act (15 U.S.C. 2682 and 2686)
7 and applies to all renovations performed for compensation in target
8 housing and child-occupied facilities. The purpose of this rule is
9 to ensure the following:

10 (1) Owners and occupants of target housing and child-occupied
11 facilities receive information on lead-based paint hazards before
12 these renovations begin; and

13 (2) Individuals performing renovations regulated in accordance
14 with R307-841-3 are properly trained; renovators and firms performing
15 these renovations are certified; and the work practices in R307-841-5
16 are followed during these renovations.

17
18 **R307-841-2. Effective Dates.**

19 (1) Training, certification and accreditation requirements,
20 and work practice standards. The training, certification and
21 accreditation requirements and work practice standards in this rule
22 are applicable as follows:

23 (a) Training programs. Effective April 8, 2010, no training
24 program may provide, offer, or claim to provide training or refresher
25 training for director certification as a renovator or a dust sampling
26 technician without accreditation from the director under R307-842-1.
27 Training programs may apply for accreditation under R307-842-1;

28 (b) Firms.

29 (i) Firms may apply for certification under R307-841-7
30 beginning April 8, 2010.

31 (ii) On or after April 8, 2010, no firm may perform, offer,
32 or claim to perform renovations without certification from the
33 director under R307-841-7 in target housing or child-occupied
34 facilities, unless the renovation qualifies as one of the exceptions
35 identified in R307-841-3(1).

36 (c) Individuals. On or after April 8, 2010, all renovations
37 must be directed by renovators certified in accordance with
38 R307-841-8(1) and performed by certified renovators or individuals
39 trained in accordance with R307-841-8(2)(b) in target housing or
40 child-occupied facilities, unless the renovation qualifies for one
41 of the exceptions identified in R307-841-3(1).

42 (d) Work practices.

43 (i) On or after April 8, 2010 and before July 5, 2012, all
44 renovations must be performed in accordance with the work practice
45 standards in R307-841-5 and the associated recordkeeping requirements
46 in R307-841-6(2)(a) and (2)(f) in target housing or child-occupied
47 facilities, unless the renovation qualifies for the exceptions
48 identified in R307-841-3(1). This does not apply to renovations in
49 target housing for which the firm performing the renovation has
50 obtained a statement signed by the owner that the renovation will
51 occur in the owner's residence, no child under age six resides there,

1 the housing is not a child-occupied facility, and the owner
2 acknowledges that the work practices to be used during the renovation
3 will not necessarily include all of the lead-safe work practices
4 contained in EPA's renovation, repair, and painting rule. For the
5 purposes of this section, a child resides in the primary residence
6 of his or her custodial parents, legal guardians, and foster parents.

7 A child also resides in the primary residence of an informal caretaker
8 if the child lives and sleeps most of the time at the caretaker's
9 residence.

10 (ii) On or after July 5, 2012, all renovations must be performed
11 in accordance with the work practice standards in R307-841-5 and the
12 associated recordkeeping requirements in R307-841-6(2)(a) and (2)(f)
13 in target housing or child-occupied facilities, unless the renovation
14 qualifies for the exception identified in R307-841-3(1).

15 (2) Renovation-specific pamphlet. Renovators or firms
16 performing renovations must provide owners and occupants with
17 "Renovate Right: Important Lead Hazard Information for Families, Child
18 Care Providers and Schools."

19
20 **R307-841-3. Applicability.**

21 (1) This rule applies to all renovations performed for
22 compensation in target housing and child-occupied facilities, except
23 for the following:

24 (a) Renovations in target housing or child-occupied facilities
25 in which a written determination has been made by an inspector or
26 risk assessor, certified pursuant to R307-842-2, that the components
27 affected by the renovation are free of paint or other surface coatings
28 that contain lead equal to or in excess of 1.0 milligrams/per square
29 centimeter (mg/cm^2) or 0.5% by weight, where the firm performing the
30 renovation has obtained a copy of the determination; or

31 (b) Renovations in target housing or child-occupied facilities
32 in which a certified renovator, using an EPA-recognized test kit as
33 defined in R307-840-2 and following the kit manufacturer's
34 instructions, has tested each component affected by the renovation
35 and determined that the components are free of paint or other surface
36 coatings that contain lead equal to or in excess of $1.0 \text{ mg}/\text{cm}^2$ or 0.5%
37 by weight. If the components make up an integrated whole, such as
38 the individual stair treads and risers of a single staircase, the
39 renovator is required to test only one of the individual components,
40 unless the individual components appear to have been repainted or
41 refinished separately.

42 (c) Renovations in target housing or child-occupied facilities
43 in which a certified renovator has collected a paint chip sample from
44 each painted component affected by the renovation and a laboratory
45 recognized by EPA pursuant to section 405(b) of TSCA as being capable
46 of performing analyses for lead compounds in paint chip samples has
47 determined that the samples are free of paint or other surface coatings
48 that contain lead equal to or in excess of $1.0 \text{ mg}/\text{cm}^2$ or 0.5% by weight.

49 If the components make up an integrated whole, such as the individual
50 stair treads and risers of a single staircase, the renovator is
51 required to test only one of the individual components, unless the

1 individual components appear to have been repainted or refinished
2 separately.

3 (2) The information distribution requirements in R307-841-4
4 do not apply to emergency renovations, which are renovation activities
5 that were not planned but result from a sudden, unexpected event (such
6 as non-routine failures of equipment) that, if not immediately
7 attended to, presents a safety or public health hazard, or threatens
8 equipment and/or property with significant damage. Interim controls
9 performed in response to an elevated blood lead level in a resident
10 child are also emergency renovations. Emergency renovations other
11 than interim controls are also exempt from the warning sign,
12 containment, waste handling, training, and certification requirements
13 in R307-841-5, R307-841-7, and R307-841-8 to the extent necessary
14 to respond to the emergency. Emergency renovations are not exempt
15 from the cleaning requirements of R307-841-5(1)(e) which must be
16 performed by certified renovators or individuals trained in accordance
17 with R307-841-8(2)(b), the cleaning verification requirements of
18 R307-841-5(2), which must be performed by certified renovators, and
19 the recordkeeping requirements of R307-841-6(2)(e) and (f).

20
21 **R307-841-4. Information Distribution Requirements.**

22 (1) Renovations in dwelling units. No more than 60 days before
23 beginning renovation activities in any residential dwelling unit of
24 target housing, the firm performing the renovation must:

25 (a) Provide the owner of the unit with the pamphlet, and comply
26 with one of the following:

27 (i) Obtain, from the owner, a written acknowledgment that the
28 owner has received the pamphlet; or

29 (ii) Obtain a certificate of mailing at least 7 days prior to
30 the renovation; and

31 (b) If the owner does not occupy the dwelling unit, provide
32 an adult occupant of the unit with the pamphlet, and comply with one
33 of the following:

34 (i) Obtain, from the adult occupant, a written acknowledgment
35 that the occupant has received the pamphlet, or certify in writing
36 that a pamphlet has been delivered to the dwelling and that the firm
37 performing the renovation has been unsuccessful in obtaining a written
38 acknowledgment from an adult occupant. Such certification must
39 include the address of the unit undergoing renovation, the date and
40 method of delivery of the pamphlet, names of the persons delivering
41 the pamphlet, reason for lack of acknowledgment (e.g., occupant
42 refuses to sign, no adult occupant available), the signature of a
43 representative of the firm performing the renovation, and the date
44 of signature; or

45 (ii) Obtain a certificate of mailing at least 7 days prior to
46 the renovation.

47 (2) Renovations in common areas. No more than 60 days before
48 beginning renovation activities in common areas of multi-unit target
49 housing, the firm performing the renovation must:

50 (a) Provide the owner with the pamphlet, and comply with one
51 of the following:

1 (i) Obtain, from the owner, a written acknowledgment that the
2 owner has received the pamphlet; or

3 (ii) Obtain a certificate of mailing at least 7 days prior to
4 the renovation;

5 (b) Comply with one of the following:

6 (i) Notify in writing, or ensure written notification of, each
7 affected unit and make the pamphlet available upon request prior to
8 the start of renovation. Such notification shall be accomplished
9 by distributing written notice to each affected unit. The notice
10 shall describe the general nature and locations of the planned
11 renovation activities, the expected starting and ending dates, and
12 a statement of how the occupant can obtain the pamphlet and a copy
13 of the records required by R307-841-6(3) and (4) at no cost to the
14 occupants; or

15 (ii) While the renovation is ongoing, post informational signs
16 describing the general nature and locations of the renovation and
17 the anticipated completion date. These signs must be posted in areas
18 where they are likely to be seen by the occupants of all of the affected
19 units. The signs must be accompanied by a posted copy of the pamphlet
20 or information on how interested occupants can review a copy of the
21 pamphlet or obtain a copy from the renovation firm at no cost to
22 occupants. The signs must also include information on how interested
23 occupants can review a copy of the records required by R307-841-6(3)
24 and (4) or obtain a copy from the renovation firm at no cost to the
25 occupants;

26 (c) Prepare, sign, and date a statement describing the steps
27 performed to notify all occupants of the intended renovation
28 activities and to provide the pamphlet; and

29 (d) If the scope, locations, or expected starting and ending
30 dates of the planned renovation activities change after the initial
31 notification, and the firm provided written initial notification to
32 each affected unit, the firm performing the renovation must provide
33 further written notification to the owners and occupants providing
34 revised information on the ongoing or planned activities. This
35 subsequent notification must be provided before the firm performing
36 the renovation initiates work beyond that which was described in the
37 original notice.

38 (3) Renovations in child-occupied facilities. No more than
39 60 days before beginning renovation activities in any child-occupied
40 facility, the firm performing the renovation must:

41 (a)(i) Provide the owner of the building with the pamphlet,
42 and comply with one of the following:

43 (A) Obtain, from the owner, a written acknowledgment that the
44 owner has received the pamphlet; or

45 (B) Obtain a certificate of mailing at least 7 days prior to
46 the renovation;

47 (ii) If the adult representative of the child-occupied facility
48 is not the owner of the building, provide an adult representative
49 of the child-occupied facility with the pamphlet, and comply with
50 one of the following:

51 (A) Obtain, from the adult representative, a written

1 acknowledgment that the adult representative has received the
2 pamphlet, or certify in writing that a pamphlet has been delivered
3 to the facility and that the firm performing the renovation has been
4 unsuccessful in obtaining a written acknowledgment from an adult
5 representative. Such certification must include the address of the
6 child-occupied facility undergoing renovation, the date and method
7 of delivery of the pamphlet, names of the persons delivering the
8 pamphlet, reason for lack of acknowledgment (e.g., representative
9 refuses to sign), the signature of a representative of the firm
10 performing the renovation, and the date of signature; or

11 (B) Obtain a certificate of mailing at least 7 days prior to
12 the renovation;

13 (b) Provide the parents and guardians of children using the
14 child-occupied facility with the pamphlet and information describing
15 the general nature and locations of the renovation and the anticipated
16 completion date and information on how interested parents or guardians
17 of children frequenting the child-occupied facility can review a copy
18 of the records required by R307-841-6(3) and (4) or obtain a copy
19 from the renovation firm at no cost to the parents or guardians by
20 complying with one of the following:

21 (i) Mail or hand-deliver the pamphlet and the renovation
22 information to each parent or guardian of a child using the
23 child-occupied facility; or

24 (ii) While the renovation is ongoing, post informational signs
25 describing the general nature and locations of the renovation and
26 the anticipated completion date. These signs must be posted in areas
27 where they can be seen by the parents or guardians of the children
28 frequenting the child-occupied facility. The signs must be
29 accompanied by a posted copy of the pamphlet or information on how
30 interested parents or guardians of children frequenting the
31 child-occupied facility can review a copy of the pamphlet or obtain
32 a copy from the renovation firm at no cost to the parents or guardians.

33 The signs must also include information on how interested parents
34 or guardians of children frequenting the child-occupied facility can
35 review a copy of the records required by R307-841-6(3) and (4) or
36 obtain a copy from the renovation firm at no cost to the parents or
37 guardians.

38 (c) The renovation firm must prepare, sign, and date a statement
39 describing the steps performed to notify all parents and guardians
40 of the intended renovation activities and to provide the pamphlet.

41 (4) Written acknowledgment. The written acknowledgments
42 required by paragraphs (1)(a)(i), (1)(b)(i), (2)(a)(i), (3)(a)(i)(A),
43 and (3)(a)(ii)(A) of this section must:

44 (a) Include a statement recording the owner or occupant's name
45 and acknowledging receipt of the pamphlet prior to the start of
46 renovation, the address of the unit undergoing renovation, the
47 signature of the owner or occupant as applicable, and the date of
48 signature;

49 (b) Be either a separate sheet or part of any written contract
50 or service agreement for the renovation; and

51 (c) Be written in the same language as the text of the contract

1 or agreement for the renovation or, in the case of non-owner occupied
2 target housing, in the same language as the lease or rental agreement
3 or the pamphlet.

4
5 **R307-841-5. Work Practice Standards.**

6 (1) Standards for renovation activities. Renovations must be
7 performed by firms certified under R307-841-7 using renovators
8 certified under R307-841-8. The responsibilities of certified firms
9 are set forth in R307-841-7(4) and the responsibilities of certified
10 renovators are set forth in R307-841-8(2).

11 (a) Occupant protection. Firms must post signs clearly
12 defining the work area and warning occupants and other persons not
13 involved in renovation activities to remain outside of the work area.

14 To the extent practicable, these signs must be in the primary language
15 of the occupants. These signs must be posted before beginning the
16 renovation, must remain in place, and must be readable until the
17 renovation and the post-renovation cleaning verification have been
18 completed. If warning signs have been posted in accordance with 24
19 CFR 35.1345(b)(2) or 29 CFR 1926.62(m), additional signs are not
20 required by this section.

21 (b) Containing the work area. Before beginning the renovation,
22 the firm must isolate the work area so that no dust or debris leaves
23 the work area while the renovation is being performed. In addition,
24 the firm must maintain the integrity of the containment by ensuring
25 that any plastic or other impermeable materials are not torn or
26 displaced, and taking any other steps necessary to ensure that no
27 dust or debris leaves the work area while the renovation is being
28 performed. The firm must also ensure that containment is installed
29 in such a manner that it does not interfere with occupant and worker
30 egress in an emergency.

31 (i) Interior renovations. The firm must:

32 (A) Remove all objects from the work area, including furniture,
33 rugs, and window coverings, or cover them with plastic sheeting or
34 other impermeable material with all seams and edges taped or otherwise
35 sealed;

36 (B) Close and cover all duct openings in the work area with
37 taped-down plastic sheeting or other impermeable material;

38 (C) Close windows and doors in the work area. Doors must be
39 covered with plastic sheeting or other impermeable material. Doors
40 used as an entrance to the work area must be covered with plastic
41 sheeting or other impermeable material in a manner that allows workers
42 to pass through while confining dust and debris to the work area;

43 (D) Cover the floor surface, including installed carpet, with
44 taped-down plastic sheeting or other impermeable material in the work
45 area 6 feet beyond the perimeter of surfaces undergoing renovation
46 or a sufficient distance to contain the dust, whichever is greater.
47 Floor containment measures may stop at the edge of the vertical barrier
48 when using a vertical containment system consisting of impermeable
49 barriers that extend from the floor to the ceiling and are tightly
50 sealed at joints with the floor, ceiling, and walls; and

51 (E) Use precautions to ensure that all personnel, tools, and

1 other items, including the exterior of containers of waste, are free
2 of dust and debris before leaving the work area.

3 (ii) Exterior renovations. The firm must:

4 (A) Close all doors and windows within 20 feet of the renovation.
5 On multi-story buildings, close all doors and windows within 20 feet
6 of the renovation on the same floor as the renovation, and close all
7 doors and windows on all floors below that are the same horizontal
8 distance from the renovation;

9 (B) Ensure that doors within the work area that will be used
10 while the job is being performed are covered with plastic sheeting
11 or other impermeable material in a manner that allows workers to pass
12 through while confining dust and debris to the work area;

13 (C) Cover the ground with plastic sheeting or other disposable
14 impermeable material extending 10 feet beyond the perimeter of
15 surfaces undergoing renovation or a sufficient distance to collect
16 falling paint debris, whichever is greater, unless the property line
17 prevents 10 feet of such ground covering. Ground containment measures
18 may stop at the edge of the vertical barrier when using a vertical
19 containment system; and

20 (D) If the renovation will affect surfaces within 10 feet of
21 the property line, the renovation firm must erect vertical containment
22 or equivalent extra precautions in containing the work area to ensure
23 that dust and debris from the renovation does not contaminate adjacent
24 buildings or migrate to adjacent properties. Vertical containment
25 or equivalent extra precautions in containing the work area may also
26 be necessary in other situations in order to prevent contamination
27 of other buildings, other areas of the property, or adjacent buildings
28 or properties.

29 (c) Prohibited and restricted practices. The work practices
30 listed below are prohibited or restricted during a renovation as
31 follows:

32 (i) Open-flame burning or torching of painted surfaces is
33 prohibited;

34 (ii) The use of machines designed to remove paint or other
35 surface coatings through high speed operation such as sanding,
36 grinding, power planing, needle gun, abrasive blasting, or
37 sandblasting, is prohibited on painted surfaces unless such machines
38 have shrouds or containment systems and are equipped with a HEPA vacuum
39 attachment to collect dust and debris at the point of generation.
40 Machines must be operated so that no visible dust or release of air
41 occurs outside the shroud or containment system; and

42 (iii) Operating a heat gun on painted surfaces is permitted
43 only at temperatures below 1,100 degrees Fahrenheit.

44 (d) Waste from renovations.

45 (i) Waste from renovation activities must be contained to
46 prevent releases of dust and debris before the waste is removed from
47 the work area for storage or disposal. If a chute is used to remove
48 waste from the work area, it must be covered.

49 (ii) At the conclusion of each work day and at the conclusion
50 of the renovation, waste that has been collected from renovation
51 activities must be stored under containment, in an enclosure, or behind

1 a barrier that prevents release of dust and debris out of the work
2 area and prevents access to dust and debris.

3 (iii) When the firm transports waste from renovation
4 activities, the firm must contain the waste to prevent release of
5 dust and debris.

6 (e) Cleaning the work area. After the renovation has been
7 completed, the firm must clean the work area until no dust, debris,
8 or residue remains.

9 (i) Interior and exterior renovations. The firm must:

10 (A) Collect all paint chips and debris and, without dispersing
11 any of it, seal this material in a heavy-duty bag; and

12 (B) Remove the protective sheeting. Mist the sheeting before
13 folding it, fold the dirty side inward, and either tape shut to seal
14 or seal in heavy-duty bags. Sheeting used to isolate contaminated
15 rooms from non-contaminated rooms must remain in place until after
16 the cleaning and removal of other sheeting. Dispose of the sheeting
17 as waste.

18 (ii) Additional cleaning for interior renovations. The firm
19 must clean all objects and surfaces in the work area and within 2
20 feet of the work area in the following manner, cleaning from higher
21 to lower:

22 (A) Walls. Clean walls starting at the ceiling and working
23 down to the floor by either vacuuming with a HEPA vacuum or wiping
24 with a damp cloth;

25 (B) Remaining surfaces. Thoroughly vacuum all remaining
26 surfaces and objects in the work area, including furniture and
27 fixtures, with a HEPA vacuum. The HEPA vacuum must be equipped with
28 a beater bar when vacuuming carpets and rugs; and

29 (C) Wipe all remaining surfaces and objects in the work area,
30 except for carpeted or upholstered surfaces, with a damp cloth. Mop
31 uncarpeted floors thoroughly, using a mopping method that keeps the
32 wash water separate from the rinse water, such as the 2-bucket mopping
33 method, or using a wet mopping system.

34 (2) Standards for post-renovation cleaning verification.

35 (a) Interiors.

36 (i) A certified renovator must perform a visual inspection to
37 determine whether dust, debris, or residue is still present. If dust,
38 debris, or residue is present, these conditions must be removed by
39 re-cleaning and another visual inspection must be performed.

40 (ii) After a successful visual inspection, a certified
41 renovator must:

42 (A) Verify that each windowsill in the work area has been
43 adequately cleaned, using the following procedure.

44 (I) Wipe the windowsill with a wet disposable cleaning cloth
45 that is damp to the touch. If the cloth matches or is lighter than
46 the cleaning verification card, the windowsill has been adequately
47 cleaned.

48 (II) If the cloth does not match and is darker than the cleaning
49 verification card, re-clean the windowsill as directed in paragraphs
50 (1)(e)(ii)(B) and (1)(e)(ii)(C) of this section, then either use a
51 new cloth or fold the used cloth in such a way that an unused surface

1 is exposed, and wipe the surface again. If the cloth matches or is
2 lighter than the cleaning verification card, that windowsill has been
3 adequately cleaned.

4 (III) If the cloth does not match and is darker than the cleaning
5 verification card, wait for 1 hour or until the surface has dried
6 completely, whichever is longer.

7 (IV) After waiting for the windowsill to dry, wipe the
8 windowsill with a dry disposable cleaning cloth. After this wipe,
9 the windowsill has been adequately cleaned.

10 (B) Wipe uncarpeted floors and countertops within the work area
11 with a wet disposable cleaning cloth. Floors must be wiped using
12 application device with a long handle and a head to which the cloth
13 is attached. The cloth must remain damp at all times while it is
14 being used to wipe the surface for post-renovation cleaning
15 verification. If the surface within the work area is greater than
16 40 square feet, the surface within the work area must be divided into
17 roughly equal sections that are each less than 40 square feet. Wipe
18 each such section separately with a new wet disposable cleaning cloth.

19 If the cloth used to wipe each section of the surface within the
20 work area matches the cleaning verification card, the surface has
21 been adequately cleaned.

22 (I) If the cloth used to wipe a particular surface section does
23 not match the cleaning verification card, re-clean that section of
24 the surface as directed in paragraphs (1)(e)(ii)(B) and (1)(e)(ii)(C)
25 of this section, then use a new wet disposable cleaning cloth to wipe
26 that section again. If the cloth matches the cleaning verification
27 card, that section of the surface has been adequately cleaned.

28 (II) If the cloth used to wipe a particular surface section
29 does not match the cleaning verification card after the surface has
30 been re-cleaned, wait for 1 hour or until the entire surface within
31 the work area has dried completely, whichever is longer.

32 (III) After waiting for the entire surface within the work area
33 to dry, wipe each section of the surface that has not yet achieved
34 post-renovation cleaning verification with a dry disposable cleaning
35 cloth. After this wipe, that section of the surface has been
36 adequately cleaned.

37 (iii) When the work area passes the post-renovation cleaning
38 verification, remove the warning signs.

39 (b) Exteriors. A certified renovator must perform a visual
40 inspection to determine whether dust, debris, or residue is still
41 present on surfaces in and below the work area, including windowsills
42 and the ground. If dust, debris, or residue is present, these
43 conditions must be eliminated and another visual inspection must be
44 performed. When the area passes the visual inspection, remove the
45 warning signs.

46 (3) Optional dust clearance testing. Cleaning verification
47 need not be performed if the contract between the renovation firm
48 and the person contracting for the renovation or another federal,
49 state, territorial, tribal, or local law or regulation requires:

50 (a) The renovation firm to perform dust clearance sampling at
51 the conclusion of a renovation covered by this rule.

1 (b) The dust clearance samples are required to be collected
2 by a certified inspector, risk assessor, or dust sampling technician.

3 (c) The renovation firm is required to re-clean the work area
4 until the dust clearance sample results are below the clearance
5 standards in R307-842-3(5)(h) or any local standard.

6 (4) Activities conducted after post-renovation cleaning
7 verification. Activities that do not disturb paint, such as applying
8 paint to walls that have already been prepared, are not regulated
9 by this rule if they are conducted after post-renovation cleaning
10 verification has been performed.

11
12 **R307-841-6. Recordkeeping and Reporting Requirements.**

13 (1) Firms performing renovations must retain and, if requested,
14 make available to the director all records necessary to demonstrate
15 compliance with this rule for a period of 3 years following completion
16 of the renovation. This 3-year retention requirement does not
17 supersede longer obligations required by other provisions for
18 retaining the same documentation.

19 (2) Records that must be retained pursuant to paragraph (1)
20 of this section shall include (where applicable):

21 (a) Records or reports certifying that a determination had been
22 made that lead-based paint is not present on the components affected
23 by the renovation, as described in R307-841-3(1). These records or
24 reports include:

25 (i) Reports prepared by a certified inspector or certified risk
26 assessor certified pursuant to R307-842-2.

27 (ii) Records prepared by a certified renovator after using
28 EPA-recognized test kits, including an identification of the
29 manufacturer and model of any test kits used, a description of the
30 components that were tested including their locations, and the result
31 of each test kit used.

32 (iii) Records prepared by a certified renovator after collecting
33 paint chip samples, including a description of the components that
34 were tested including their locations, the name and address of the
35 NLLAP-recognized entity performing the analysis, and the results for
36 each sample.

37 (b) Signed and dated acknowledgments of receipt as described
38 in R307-841-4(1)(a)(i), (1)(b)(i), (2)(a)(i), (3)(a)(i)(A), and
39 (3)(a)(ii)(A).

40 (c) Certifications of attempted delivery as described in
41 R307-841-4(1)(b)(i) and (3)(a)(ii)(A).

42 (d) Certificates of mailing as described in
43 R307-841-4(1)(a)(ii), (1)(b)(ii), (2)(a)(ii), (3)(a)(i)(B), and
44 (3)(a)(ii)(B).

45 (e) Records of notification activities performed regarding
46 common area renovations, as described in R307-841-4(2)(c) and (2)(d),
47 and renovations in child-occupied facilities, as described in
48 R307-841-4(3)(b).

49 (f) Documentation of compliance with the requirements of
50 R307-841-5, including documentation that a certified renovator was
51 assigned to the project, that the certified renovator provided

1 on-the-job training for workers used on the project, that the certified
2 renovator performed or directed workers who performed all of the tasks
3 described in R307-841-5(1), and that the certified renovator performed
4 the post-renovation cleaning verification described in R307-841-5(2).

5 If the renovation firm was unable to comply with all of the
6 requirements of this rule due to an emergency as defined in R307-841-3,
7 the firm must document the nature of the emergency and the provisions
8 of the rule that were not followed. This documentation must include
9 a copy of the certified renovator's current Utah Lead-Based Paint
10 Renovator certification card, and a certification by the certified
11 renovator assigned to the project that:

12 (i) Training was provided to workers (topics must be identified
13 for each worker).

14 (ii) Warning signs were posted at the entrances to the work
15 area.

16 (iii) If test kits were used, that the specified brand of kits
17 was used at the specified locations and that the results were as
18 specified.

19 (iv) If paint chip samples were collected, that the samples
20 were collected at the specified locations, that the specified
21 NLLAP-recognized laboratory analyzed the samples, and that the results
22 were as specified.

23 (v) The work area was contained by:

24 (A) Removing or covering all objects in the work area
25 (interiors);

26 (B) Closing and covering all HVAC ducts in the work area
27 (interiors);

28 (C) Closing all windows in the work area (interiors) or closing
29 all windows in and within 20 feet of the work area (exteriors);

30 (D) Closing and sealing all doors in the work area (interiors)
31 or closing and sealing all doors in and within 20 feet of the work
32 area (exteriors);

33 (E) Covering doors in the work area that were being used to
34 allow passage but prevent spread of dust;

35 (F) Covering the floor surface, including installed carpet,
36 with taped-down plastic sheeting or other impermeable material in
37 the work area 6 feet beyond the perimeter of surfaces undergoing
38 renovation or a sufficient distance to contain the dust, whichever
39 is greater (interiors) or covering the ground with plastic sheeting
40 or other disposable impermeable material anchored to the building
41 extending 10 feet beyond the perimeter of surfaces undergoing
42 renovation or a sufficient distance to collect falling paint debris,
43 whichever is greater, unless the property line prevents 10 feet of
44 such ground covering, weighted down by heavy objects (exteriors);
45 and

46 (G) Installing (if necessary) vertical containment to prevent
47 migration of dust and debris to adjacent property (exteriors).

48 (vi) Waste was contained on-site and while being transported
49 off-site.

50 (vii) The work area was properly cleaned after the renovation
51 by:

1 (A) Picking up all chips and debris, misting protective
2 sheeting, folding it dirty side inward, and taping it for removal;
3 and

4 (B) Cleaning the work area surfaces and objects using a HEPA
5 vacuum and/or wet cloths or mops (interiors).

6 (viii) The certified renovator performed the post-renovation
7 cleaning verification (the results of which must be briefly described,
8 including the number of wet and dry cloths used).

9 (3)(a) When the final invoice for the renovation is delivered
10 or within 30 days of the completion of the renovation, whichever is
11 earlier, the renovation firm must provide information pertaining to
12 compliance with this rule to the following persons:

13 (i) The owner of the building; and, if different,

14 (ii) An adult occupant of the residential dwelling, if the
15 renovation took place within a residential dwelling, or an adult
16 representative of the child-occupied facility, if the renovation took
17 place within a child-occupied facility.

18 (b) When performing renovations in common areas of multi-unit
19 target housing, renovation firms must post the information required
20 by this rule or instructions on how interested occupants can obtain
21 a copy of this information. This information must be posted in areas
22 where it is likely to be seen by the occupants of all of the affected
23 units.

24 (c) The information required to be provided by paragraph (3)
25 of this section may be provided by completing the sample form titled
26 "Sample Renovation Recordkeeping Checklist" or a similar form
27 containing the test kit information required by R307-841-6(2)(a)(ii)
28 and the training and work practice compliance information required
29 by R307-841-6(2)(f).

30 (4) If dust clearance sampling is performed in lieu of cleaning
31 verification as permitted by R307-841-5(3), the renovation firm must
32 provide, when the final invoice for the renovation is delivered or
33 within 30 days of the completion of the renovation, whichever is
34 earlier, a copy of the dust sampling report to:

35 (a) The owner of the building; and, if different,

36 (b) An adult occupant of the residential dwelling, if the
37 renovation took place within a residential dwelling, or an adult
38 representative of the child-occupied facility, if the renovation took
39 place within a child-occupied facility.

40 (c) When performing renovations in common areas of multi-unit
41 target housing, renovation firms must post these dust sampling reports
42 or information on how interested occupants of the housing being
43 renovated can obtain a copy of the report. This information must be
44 posted in areas where they are likely to be seen by the occupants
45 of all of the affected units.

46
47 **R307-841-7. Firm Certification.**

48 (1) Initial certification.

49 (a) Firms that perform renovations for compensation must apply
50 to the director for certification to perform renovations or dust
51 sampling. To apply, a firm must submit to the director a completed

1 "Lead-Based Paint Certification Application for Firms," signed by
2 an authorized agent of the firm, and pay the correct amount of fees.

3 (b) After the director receives a firm's application, the
4 director will take one of the following actions within 90 days of
5 the date the application is received:

6 (i) The director will approve a firm's application if the
7 director determines that it is complete and that the environmental
8 compliance history of the firm, its principals, or its key employees
9 does not show an unwillingness or inability to maintain compliance
10 with environmental statutes or regulations. An application is
11 complete if it contains all of the information requested on the form
12 and includes at least the correct amount of fees. When the director
13 approves a firm's application, the director will issue the firm a
14 certificate with an expiration date not more than 5 years from the
15 date the application is approved;

16 (ii) The director will request a firm to supplement its
17 application if the director determines that the application is
18 incomplete. If the director requests a firm to supplement its
19 application, the firm must submit the requested information or pay
20 the additional fees within 30 days of the date of the request; and

21 (iii) The director will not approve a firm's application if
22 the firm does not supplement its application in accordance with
23 paragraph (1)(b)(ii) of this section or if the director determines
24 that the environmental compliance history of the firm, its principals,
25 or its key employees demonstrates an unwillingness or inability to
26 maintain compliance with environmental statutes or regulations. The
27 director will send the firm a letter giving the reason for not approving
28 the application. The director will not refund the application fees.

29 A firm may reapply for certification at any time by filing a new,
30 complete application that includes the correct amount of fees.

31 (2) Re-certification. To maintain its certification, a firm
32 must be re-certified by the director.

33 (a) Timely and complete application. To be re-certified, a
34 firm must submit a complete application for re-certification. A
35 complete application for re-certification includes a completed
36 "Lead-Based Paint Certification Application for Firms" which contains
37 all of the information requested by the form and is signed by an
38 authorized agent of the firm, noting on the form that it is submitted
39 as a re-certification. A complete application must also include the
40 correct amount of fees.

41 (i) An application for re-certification is timely if it is
42 postmarked 90 days or more before the date the firm's current
43 certification expires. If the firm's application is complete and
44 timely, the firm's current certification will remain in effect until
45 its expiration date or until the director has made a final decision
46 to approve or disapprove the re-certification application, whichever
47 is later.

48 (ii) If the firm submits a complete re-certification
49 application less than 90 days before its current certification
50 expires, and the director does not approve the application before
51 the expiration date, the firm's current certification will expire

1 and the firm will not be able to conduct renovations until the director
2 approves its re-certification application.

3 (iii) If the firm fails to obtain recertification before the
4 firm's current certification expires, the firm must not perform
5 renovations or dust sampling until it is certified anew pursuant to
6 paragraph (1), of this section.

7 (b) Director's action on an application. After the director
8 receives a firm's application for re-certification, the director will
9 review the application and take one of the following actions within
10 90 days of receipt:

11 (i) The director will approve a firm's application if the
12 director determines that it is timely and complete and that the
13 environmental compliance history of the firm, its principals, or its
14 key employees does not show an unwillingness or inability to maintain
15 compliance with environmental statutes or regulations. When the
16 director approves a firm's application for re-certification, the
17 director will issue the firm a new certificate with an expiration
18 date not more than 5 years from the date that the firm's current
19 certification expires.

20 (ii) The director will request a firm to supplement its
21 application if the director determines that the application is
22 incomplete.

23 (iii) The director will not approve a firm's application if
24 it is not received or is not complete as of the date that the firm's
25 current certification expires, or if the director determines that
26 the environmental compliance history of the firm, its principals,
27 or its key employees demonstrates an unwillingness or inability to
28 maintain compliance with environmental statutes or regulations. The
29 director will send the firm a letter giving the reason for not approving
30 the application. The director will not refund the application fees.

31 A firm may reapply for certification at any time by filing a new
32 application and paying the correct amount of fees.

33 (3) Amendment of certification. A firm must amend its
34 certification within 90 days of the date a change occurs to information
35 included in the firm's most recent application. If the firm fails
36 to amend its certification within 90 days of the date the change occurs,
37 the firm may not perform renovations or dust sampling until its
38 certification is amended.

39 (a) To amend a certification, a firm must submit a completed
40 "Lead-Based Paint Certification Application for Firms," signed by
41 an authorized agent of the firm, noting on the form that it is submitted
42 as an amendment and indicating the information that has changed.
43 The firm must also pay at least the correct amount of fees.

44 (b) If additional information is needed to process the
45 amendment, or the firm did not pay the correct amount of fees, the
46 director will request the firm to submit the necessary information
47 or fees. The firm's certification is not amended until the firm
48 complies with the request.

49 (c) Amending a certification does not affect the certification
50 expiration date.

51 (4) Firm responsibilities. Firms performing renovations must

1 ensure that:

2 (a) All individuals performing renovation activities on behalf
3 of the firm are either certified renovators or have been trained by
4 a certified renovator in accordance with R307-841-8;

5 (b) A certified renovator is assigned to each renovation
6 performed by the firm and discharges all of the certified renovator
7 responsibilities identified in R307-841-8;

8 (c) All renovations performed by the firm are performed in
9 accordance with the work practice standards in R307-841-5;

10 (d) The pre-renovation education requirements of R307-841-4
11 have been performed; and

12 (e) The recordkeeping requirements of R307-841-6 are met.
13

14 **R307-841-8. Renovator Certification and Dust Sampling Technician**
15 **Certification.**

16 (1) Renovator certification and dust sampling technician
17 certification.

18 (a) To become a certified renovator or certified dust sampling
19 technician, an individual must successfully complete an initial
20 lead-based paint renovator or dust-sampling technician course
21 accredited by the director under R307-842-1, the EPA under 40 CFR
22 745.225, or a state or tribal program that has been authorized by
23 EPA pursuant to subpart Q of 40 CFR 745.

24 (b) Individuals who have successfully completed an accredited
25 abatement worker or supervisor course, or individuals who have
26 successfully completed a director, EPA, HUD, or EPA/HUD model
27 renovation training course before October 4, 2011, but no later than
28 the training course expiration date found on that training
29 certificate, may take an accredited refresher renovator training
30 course in lieu of the initial renovator training course to become
31 a certified renovator.

32 (c) Individuals who have successfully completed an accredited
33 lead-based paint inspector or risk assessor course before October
34 4, 2011, but no later than the training course expiration date found
35 on that training certificate, may take an accredited refresher dust
36 sampling technician course in lieu of the initial training to become
37 a certified dust sampling technician. Individuals who are currently
38 certified as lead-based paint inspectors or risk assessors may act
39 as certified dust sampling technicians without further training.

40 (d) To maintain renovator certification or dust sampling
41 technician certification, an individual must complete a renovator
42 or dust sampling technician refresher course accredited by the
43 director under R307-842-1, the EPA under 40 CFR 745.225, or by a state
44 or tribal program that is authorized under subpart Q of 40 CFR 745
45 within 5 years of the date the individual completed the initial course
46 described in paragraph (1)(a) of this section. If the individual
47 does not complete a refresher course within this time, the individual
48 must re-take the initial course to become certified again.

49 (2) Renovator responsibilities. Certified renovators are
50 responsible for ensuring compliance with R307-841-5 at all renovations
51 to which they are assigned. A certified renovator:

1 (a) Must perform all of the tasks described in R307-841-5(2)
2 and must either perform or direct workers who perform all of the tasks
3 described in R307-841-5(1);

4 (b) Must provide training to workers on the work practices
5 required by R307-841-5(1) that they will be using in performing their
6 assigned tasks;

7 (c) Must be physically present at the work site when the signs
8 required by R307-841-5(1)(a) are posted, while the work area
9 containment required by R307-841-5(1)(b) is being established, and
10 while the work area cleaning required by R307-841-5(1)(e) is
11 performed;

12 (d) Must regularly direct work being performed by other
13 individuals to ensure that the work practices required by
14 R307-841-5(1) are being followed, including maintaining the integrity
15 of the containment barriers and ensuring that dust or debris does
16 not spread beyond the work area;

17 (e) Must be available, either on-site or by telephone, at all
18 times that renovations are being conducted;

19 (f) When requested by the party contracting for renovation
20 services, must use an acceptable test kit to determine whether
21 components to be affected by the renovation contain lead-based paint;

22 (g) Must have with them at the work site their current Utah
23 Lead-Based Paint Renovator certification card; and

24 (h) Must prepare the records required by R307-841-6(2)(a)(ii),
25 (iii), and (f).

26 (3) Dust sampling technician responsibilities. When
27 performing optional dust clearance sampling under R307-841-5(3), a
28 certified dust sampling technician:

29 (a) Must collect dust samples in accordance with
30 R307-842-3(5)(h), must send the collected samples to a laboratory
31 recognized by EPA under TSCA Section 405(b), and must compare the
32 results to the clearance levels in accordance with R307-842-3(5)(h);
33 and

34 (b) Must have with them at the work site their current Utah
35 Lead-Based Paint Dust Sampling Technician certification card.

36
37 **R307-841-9. Suspending, Revoking, or Modifying an Individual's or**
38 **Firm's Certification.**

39 (1) Grounds for suspending, revoking, or modifying an
40 individual's certification. The director may suspend, revoke, or
41 modify an individual's certification if the individual fails to comply
42 with state lead-based paint administrative rules. The director may
43 also suspend, revoke, or modify a certified renovator's certification
44 if the renovator fails to ensure that all assigned renovations comply
45 with R307-841-5. In addition to an administrative or judicial finding
46 of violation, execution of a consent agreement in settlement of an
47 enforcement action constitutes, for purposes of this section, evidence
48 of a failure to comply with relevant statutes or regulations.

49 (2) Grounds for suspending, revoking, or modifying a firm's
50 certification. The director may suspend, revoke, or modify a firm's
51 certification if the firm:

1 (a) Submits false or misleading information to the director
2 in its application for certification or re-certification,

3 (b) Fails to maintain or falsifies records required in
4 R307-841-6, or

5 (c) Fails to comply, or an individual performing a renovation
6 on behalf of the firm fails to comply, with state lead-based paint
7 administrative rules. In addition to an administrative or judicial
8 finding of violation, execution of a consent agreement in settlement
9 of an enforcement action constitutes, for purposes of this section,
10 evidence of a failure to comply with relevant statutes or regulations.

11
12 **KEY: paint, lead-based paint, lead-based paint renovation**

13 **Date of Enactment or Last Substantive Amendment: May 3, 2012**

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

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: _____ Date filed: _____
 State Admin Rule Filing Key: 155911
 Utah Admin. Code ref. (R no.): R307-841

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality
 Room no.: Fourth Floor
 Building:
 Street address 1: 195 N 1950 W
 Street address 2:
 City, state, zip: SALT LAKE CITY UT 84116-3085
 Mailing address 1: PO BOX 144820
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Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Mark Berger	801-536-4000	801-536-0085	mberger@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
 Residential Property and Child Occupied Facility Renovation

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
 R307-841 is one of three Air Quality rules that implements Subsection 19-2-104(1)(i) which authorizes the Air Quality Board to make rules to implement the lead-based paint requirements for training, certification, and performance of 15 U.S.C.A 2601 et seq., Toxic Substances Control Act, Subchapter IV--Lead Exposure Reduction, Sections 402 and 406.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
 R307-841 was newly promulgated on April 4, 2010. Since then it has undergone two nonsubstantive change rulemakings. Since the rule was promulgated in 2010, there have been no comments submitted that either support or oppose the rule.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
 R307-841 contains necessary requirements for Utah to have lead-based paint program regulatory oversight in Utah for renovation projects conducted in target housing and child-occupied facilities. Without R307-841, Utah would not have authority to implement the federal requirements and implementation would be carried out by the Environmental

Protection Agency. Therefore, this rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
paint, lead-based paint renovation, lead-based paint

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/14/2015

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

2 **R307-842. Lead-Based Paint Activities.**

3 **R307-842-1. Accreditation of Training Programs: Target Housing and**
4 **Child-Occupied Facilities.**

5 (1) Scope.

6 (a) A training program may seek accreditation to offer courses
7 in any of the following disciplines: inspector, risk assessor,
8 supervisor, project designer, abatement worker, renovator, and dust
9 sampling technician. A training program may also seek accreditation
10 to offer refresher courses for each of the above listed disciplines.

11 (b) Training programs may apply to the director for
12 accreditation of their lead-based paint activities courses or
13 refresher courses pursuant to this section. Training programs may
14 apply to the director for accreditation of their renovator or dust
15 sampling technician courses or refresher courses pursuant to this
16 section.

17 (c) A training program must not provide, offer, or claim to
18 provide director-accredited lead-based paint activities courses
19 without applying for and receiving accreditation from the director
20 as required under paragraph (2) of this section. A training program
21 must not provide, offer, or claim to provide director-accredited
22 renovator or dust sampling technician courses without applying for
23 and receiving accreditation from the director as required under
24 paragraph (2) of this section.

25 (2) Application process. The following are procedures a
26 training program must follow to receive director accreditation to
27 offer lead-based paint activities courses, renovator courses, or dust
28 sampling technician courses:

29 (a) A training program seeking accreditation shall submit a
30 written application to the director containing the following
31 information:

32 (i) The training program's name, address, and telephone number;

33 (ii) A list of courses for which it is applying for
34 accreditation. For the purposes of this section, courses taught in
35 different languages and electronic learning courses are considered
36 different courses, and each must independently meet the accreditation
37 requirements;

38 (iii) The name and documentation of the qualifications of the
39 training program manager;

40 (iv) The name(s) and documentation of qualifications of any
41 principal instructor(s); and

42 (v) A statement signed by the training program manager
43 certifying that the training program meets the requirements
44 established in paragraph (3) of this section. If a training program
45 uses EPA-recommended model training materials, the training program
46 manager shall include a statement certifying that, as well; or

47 (vi) If a training program does not use EPA-recommended model
48 training materials, its application for accreditation shall also
49 include:

50 (A) A copy of the student and instructor manuals, or other
51 materials to be used for each course;

1 (B) A copy of the course agenda for each course; and

2 (C) When applying for accreditation of a course in a language
3 other than English, a signed statement from a qualified, independent
4 translator that they had compared the course to the English language
5 version and found the translation to be accurate;

6 (vii) All training programs shall include in their application
7 for accreditation the following:

8 (A) A description of the facilities and equipment to be used
9 for lecture and hands-on training;

10 (B) A copy of the course test blueprint for each course;

11 (C) A description of the activities and procedures that will
12 be used for conducting the assessment of hands-on skills for each
13 course; and

14 (D) A copy of the quality control plan as described in paragraph
15 (3)(i) of this section.

16 (b) If a training program meets the requirements in paragraph
17 (3) of this section, then the director shall approve the application
18 for accreditation no more than 180 days after receiving a complete
19 application from the training program. In the case of approval, a
20 certificate of accreditation shall be sent to the applicant. In the
21 case of disapproval, a letter describing the reasons for disapproval
22 shall be sent to the applicant. Prior to disapproval, the director
23 may, at its discretion, work with the applicant to address inadequacies
24 in the application for accreditation. The director may also request
25 additional materials retained by the training program under paragraph
26 (8) of this section. If a training program's application is
27 disapproved, the program may reapply for accreditation at any time.

28 (c) A training program may apply for accreditation to offer
29 courses or refresher courses in as many disciplines as it chooses.
30 A training program may seek accreditation for additional courses at
31 any time as long as the program can demonstrate that it meets the
32 requirements of this section.

33 (d) A training program applying for accreditation must submit
34 the appropriate fees in accordance with the current Department of
35 Environmental Quality Fee Schedule.

36 (3) Requirements for the accreditation of training programs.
37 For a training program to obtain accreditation from the director to
38 offer lead-based paint activities courses, renovator courses, or dust
39 sampling technician courses, the program must meet the following
40 requirements:

41 (a) The training program shall employ a training manager who
42 has:

43 (i) At least 2 years of experience, education, or training in
44 teaching workers or adults; or

45 (ii) A bachelor's or graduate degree in building construction
46 technology, engineering, industrial hygiene, safety, public health,
47 education, business administration or program management or a related
48 field; or

49 (iii) Two years of experience in managing a training program
50 specializing in environmental hazards; and

51 (iv) Demonstrated experience, education, or training in the

1 construction industry including: lead or asbestos abatement,
2 painting, carpentry, renovation, remodeling, occupational safety and
3 health, or industrial hygiene.

4 (b) The training manager shall designate a qualified principal
5 instructor for each course who has:

6 (i) Demonstrated experience, education, or training in teaching
7 workers or adults; and

8 (ii) Successfully completed at least 16 hours of any
9 director-accredited, EPA-accredited, or EPA-authorized state or
10 tribal-accredited lead-specific training for instructors of
11 lead-based paint activities courses or 8 hours of any
12 director-accredited, EPA-accredited or EPA-authorized state or
13 tribal-accredited lead-specific training for instructors of renovator
14 or dust sampling technician courses; and

15 (iii) Demonstrated experience, education, or training in lead
16 or asbestos abatement, painting, carpentry, renovation, remodeling,
17 occupational safety and health, or industrial hygiene.

18 (c) The principal instructor shall be responsible for the
19 organization of the course, course delivery, and oversight of the
20 teaching of all course material. The training manager may designate
21 guest instructors as needed for a portion of the course to provide
22 instruction specific to the lecture, hands-on activities, or work
23 practice components of a course. However, the principal instructor
24 is primarily responsible for teaching the course materials and must
25 be present to provide instruction (or oversight of portions of the
26 course taught by guest instructors) for the course for which he or
27 she has been designated the principal instructor.

28 (d) The following documents shall be recognized by the director
29 as evidence that training managers and principal instructors have
30 the education, work experience, training requirements or demonstrated
31 experience, specifically listed in paragraphs (3)(a) and (3)(b) of
32 this section. This documentation must be submitted with the
33 accreditation application and retained by the training program as
34 required by the recordkeeping requirements contained in paragraph
35 (8) of this section. Those documents include the following:

36 (i) Official academic transcripts or diploma as evidence of
37 meeting the education requirements;

38 (ii) Resumes, letters of reference, or documentation of work
39 experience, as evidence of meeting the work experience requirements;
40 and

41 (iii) Certificates from train-the-trainer courses and
42 lead-specific training courses, as evidence of meeting the training
43 requirements.

44 (e) The training program shall ensure the availability of, and
45 provide adequate facilities for, the delivery of the lecture, course
46 test, hands-on training, and assessment activities. This includes
47 providing training equipment that reflects current work practices
48 and maintaining or updating the equipment and facilities as needed.

49 (f) To become accredited in the following disciplines, the
50 training program shall provide training courses that meet the
51 following training requirements:

1 (i) The inspector course shall last a minimum of 24 training
2 hours, with a minimum of 8 hours devoted to hands-on training
3 activities. The minimum curriculum requirements for the inspector
4 course are contained in paragraph (4)(a) of this section;

5 (ii) The risk assessor course shall last a minimum of 16 training
6 hours, with a minimum of 4 hours devoted to hands-on training
7 activities. The minimum curriculum requirements for the risk
8 assessor course are contained in paragraph (4)(b) of this section;

9 (iii) The supervisor course shall last a minimum of 32 training
10 hours, with a minimum of 8 hours devoted to hands-on training
11 activities. The minimum curriculum requirements for the supervisor
12 course are contained in paragraph (4)(c) of this section;

13 (iv) The project designer course shall last a minimum of 8
14 training hours. The minimum curriculum requirements for the project
15 designer course are contained in paragraph (4)(d) of this section;

16 (v) The abatement worker course shall last a minimum of 16
17 training hours, with a minimum of 8 hours devoted to hands-on training
18 activities. The minimum curriculum requirements for the abatement
19 worker course are contained in paragraph (4)(e) of this section;

20 (vi) The renovator course must last a minimum of 8 training
21 hours, with a minimum of 2 hours devoted to hands-on training
22 activities. The minimum curriculum requirements for the renovator
23 course are contained in paragraph (4)(f) of this section; and

24 (vii) The dust sampling technician course must last a minimum
25 of 8 training hours, with a minimum of 2 hours devoted to hands-on
26 training activities. The minimum curriculum requirements for the
27 dust sampling technician course are contained in paragraph (4)(g)
28 of this section.

29 (viii) Electronic learning and other alternative course
30 delivery methods are permitted for the classroom portion of renovator,
31 dust sampling technician, or lead-based paint activities courses but
32 not the hands-on portion of these courses, or for final course tests
33 or proficiency tests described in paragraph (3)(g) of this section.
34 Electronic learning courses must comply with the following
35 requirements:

36 (A) A unique identifier must be assigned to each student for
37 them to use to launch and re-launch the course;

38 (B) The training provider must track each student's course
39 log-ins, launches, progress, and completion, and maintain these
40 records in accordance with paragraph (8) of this section;

41 (C) The course must include periodic knowledge checks
42 equivalent to the number and content of the knowledge checks contained
43 in EPA's model course, but at least 16 over the entire course. The
44 knowledge checks must be successfully completed before the student
45 can go on to the next module;

46 (D) There must be a test of at least 20 questions at the end
47 of the electronic learning portion of the course, of which 80% must
48 be answered correctly by the student for successful completion of
49 the electronic learning portion of the course. The test must be
50 designed so that students do not receive feedback on their test answers
51 until after they have completed and submitted the test; and

1 (E) Each student must be able to save or print a copy of an
2 electronic learning course completion certificate. The electronic
3 certificate must not be susceptible to easy editing.

4 (g) For each course offered, the training program shall conduct
5 either a course test at the completion of the course, and if applicable,
6 a hands-on skills assessment, or in the alternative, a proficiency
7 test for that discipline. Each student must successfully complete
8 the hands-on skills assessment and receive a passing score on the
9 course test to pass any course, or successfully complete a proficiency
10 test.

11 (i) The training manager is responsible for maintaining the
12 validity and integrity of the hands-on skills assessment or
13 proficiency test to ensure that it accurately evaluates the trainees'
14 performance of the work practices and procedures associated with the
15 course topics contained in paragraph (4) of this section;

16 (ii) The training manager is responsible for maintaining the
17 validity and integrity of the course test to ensure that it accurately
18 evaluates the trainees' knowledge and retention of the course topics;
19 and

20 (iii) The course test shall be developed in accordance with
21 the test blueprint submitted with the training accreditation
22 application.

23 (h) The training program shall issue unique course completion
24 certificates to each individual who passes the training course. The
25 course completion certificate shall include:

26 (i) The name, a unique identification number, and address of
27 the individual;

28 (ii) The name of the particular course that the individual
29 completed;

30 (iii) Dates of course completion/test passage;

31 (iv) For initial inspector, risk assessor, project designer,
32 supervisor, or abatement worker course completion certificates, the
33 expiration date of interim certification, which is 6 months from the
34 date of course completion;

35 (v) The name, address, and telephone number of the training
36 program;

37 (vi) The language in which the course was taught; and

38 (vii) For renovator and dust sampling technician course
39 completion certificates, a photograph of the individual. The
40 photograph must be an accurate and recognizable image of the
41 individual. As reproduced on the certificate, the photograph must
42 not be smaller than 1 square inch.

43 (i) The training manager shall develop and implement a quality
44 control plan. The plan shall be used to maintain and improve the
45 quality of the training program over time. This plan shall contain
46 at least the following elements:

47 (i) Procedures for periodic revision of training materials and
48 the course test to reflect innovations in the field; and

49 (ii) Procedures for the training manager's annual review of
50 principal instructor competency.

51 (j) Courses offered by the training program must teach the work

1 practice standards contained in R307-841-5 or R307-842-3, as
2 applicable, in such a manner that trainees are provided with the
3 knowledge needed to perform the renovations or lead-based paint
4 activities they will be responsible for conducting.

5 (k) The training manager shall be responsible for ensuring that
6 the training program complies at all times with all of the requirements
7 in this section.

8 (l) The training manager shall allow the director or the
9 director's authorized representative to audit the training program
10 to verify the contents of the application for accreditation as
11 described in paragraph (2) of this section.

12 (m) The training manager must provide notification of
13 renovator, dust sampling technician, or lead-based paint activities
14 courses offered.

15 (i) The training manager must provide the director with
16 notification of all renovator, dust sampling technician, or lead-based
17 paint activities courses offered. The original notification must
18 be received by the director at least 7 business days prior to the
19 start date of any renovator, dust sampling technician, or lead-based
20 paint activities course;

21 (ii) The training manager must provide the director updated
22 notification when renovator, dust sampling technician, or lead-based
23 paint activities courses will begin on a date other than the start
24 date specified in the original notification, as follows:

25 (A) For renovator, dust sampling technician, or lead-based
26 paint activities courses beginning prior to the start date provided
27 to the director, an updated notification must be received by the
28 director at least 7 business days before the new start date; and

29 (B) For renovator, dust sampling technician, or lead-based
30 paint activities courses beginning after the start date provided to
31 the director, an updated notification must be received by the director
32 at least 2 business days before the start date provided to the director;

33 (iii) The training manager must update the director of any
34 change in location of renovator, dust sampling technician, or
35 lead-based paint activities courses at least 7 business days prior
36 to the start date provided to the director;

37 (iv) The training manager must update the director regarding
38 any course cancellations, or any other change to the original
39 notification. Updated notifications must be received by the director
40 at least 2 business days prior to the start date provided to the
41 director;

42 (v) Each notification, including updates, must include the
43 following:

- 44 (A) Notification type (original, update, or cancellation);
45 (B) Training program name, address, and telephone number;
46 (C) Course discipline, type (initial/refresher), and the
47 language in which instruction will be given;
48 (D) Date(s) and time(s) of training;
49 (E) Training location(s) telephone number, and address;
50 (F) Principal instructor's name; and
51 (G) Training manager's name and signature;

1 (vi) Notification must be accomplished using any of the
2 following methods: Written notification, or electronically using
3 the Utah Division of Air Quality electronic notification system.
4 Written notification of renovator, dust sampling technician, or
5 lead-based paint activities course schedules can be accomplished by
6 using either the sample form titled "Renovator, Dust Sampling
7 Technician, or Lead-Based Paint Activities Training Course
8 Notification Form" or a similar form containing the information
9 required in paragraph (3)(m)(v) of this section. All written
10 notifications must be delivered to the director by United States Postal
11 Service, fax, commercial delivery service, or hand delivery.
12 Instructions and sample forms can be obtained from the Utah Division
13 of Air Quality Lead-Based Paint Program web site;

14 (vii) Renovator, dust sampling technician, or lead-based paint
15 activities courses must not begin on a date, or at a location other
16 than that specified in the original notification unless an updated
17 notification identifying a new start date or location is submitted,
18 in which case the course must begin on the new start date and/or
19 location specified in the updated notification; and

20 (viii) No training program shall provide renovator, dust
21 sampling technician, or lead-based paint activities courses without
22 first notifying the director of such activities in accordance with
23 the requirements of this paragraph.

24 (n) The training manager must provide notification following
25 completion of renovator, dust sampling technician, or lead-based paint
26 activities courses.

27 (i) The training manager must provide the director notification
28 after the completion of any renovator, dust sampling technician, or
29 lead-based paint activities course. This notice must be received
30 by the director no later than 10 business days following the course
31 completion;

32 (ii) The notification must include the following:

33 (A) Training program name, address, and telephone number;

34 (B) Course discipline and type (initial/refresher);

35 (C) Date(s) of training;

36 (D) The following information for each student who took the
37 course:

38 (I) Name,

39 (II) Address,

40 (III) Date of birth,

41 (IV) Course completion certificate number,

42 (V) Course test score, and

43 (VI) For renovator or dust sampling technician courses, a
44 digital photograph of the student;

45 (E) Training manager's name and signature; and

46 (F) Utah Division of Air Quality Lead-Based Paint Program
47 training verification statement; and

48 (iii) Notification must be accomplished using any of the
49 following methods: Written notification, or electronically using
50 the Utah Division of Air Quality electronic notification system.
51 Written notification following renovator, dust sampling technician,

1 or lead-based paint activities training courses can be accomplished
2 by using either the sample form titled "Renovator, Dust Sampling
3 Technician, or Lead-Based Paint Activities Training Course
4 Notification Form" or a similar form containing the information
5 required in paragraph (3)(n)(ii) of this section. All written
6 notifications must be delivered to the director by United States Postal
7 Service, fax, commercial delivery service, or hand delivery.
8 Instructions and sample forms can be obtained from the Utah Division
9 of Air Quality Lead-Based Paint Program web site.

10 (4) Minimum training curriculum requirements. To become
11 accredited to offer lead-based paint courses in the specific
12 disciplines listed in this paragraph, training programs must ensure
13 that their courses of study include, at a minimum, the following course
14 topics.

15 (a) Inspector. Instruction in the topics described in
16 paragraphs (4)(a)(iv), (v), (vi), and (vii) of this section must be
17 included in the hands-on portion of the course.

18 (i) Role and responsibilities of an inspector.

19 (ii) Background information on lead and its adverse health
20 effects.

21 (iii) Background information on federal, state, and local
22 regulations and guidance that pertains to lead-based paint and
23 lead-based paint activities.

24 (iv) Lead-based paint inspection methods, including selection
25 of rooms and components for sampling or testing.

26 (v) Paint, dust, and soil sampling methodologies.

27 (vi) Clearance standards and testing, including random
28 sampling.

29 (vii) Preparation of the final inspection report.

30 (viii) Recordkeeping.

31 (b) Risk assessor. Instruction in the topics described in
32 paragraphs (4)(b)(iv), (vi), and (vii) of this section must be included
33 in the hands-on portion of the course.

34 (i) Role and responsibilities of a risk assessor.

35 (ii) Collection of background information to perform a risk
36 assessment.

37 (iii) Sources of environmental lead contamination such as
38 paint, surface dust and soil, water, air, packaging, and food.

39 (iv) Visual inspection for the purposes of identifying
40 potential sources of lead-based paint hazards.

41 (v) Lead hazard screen protocol.

42 (vi) Sampling for other sources of lead exposure.

43 (vii) Interpretation of lead-based paint and other lead
44 sampling results, including all applicable federal or state guidance
45 or regulations pertaining to lead-based paint hazards.

46 (viii) Development of hazard control options, the role of
47 interim controls, and operations and maintenance activities to reduce
48 lead-based paint hazards.

49 (ix) Preparation of a final risk assessment report.

50 (c) Supervisor. Instruction in the topics described in
51 paragraphs (4)(c)(v), (vii), (viii), (ix), and (x) of this section

1 must be included in the hands-on portion of the course.

2 (i) Role and responsibilities of a supervisor.

3 (ii) Background information on lead and its adverse health
4 effects.

5 (iii) Background information on federal, state, and local
6 regulations and guidance that pertain to lead-based paint abatement.

7 (iv) Liability and insurance issues relating to lead-based
8 paint abatement.

9 (v) Risk assessment and inspection report interpretation.

10 (vi) Development and implementation of an occupant protection
11 plan and abatement report.

12 (vii) Lead-based paint hazard recognition and control.

13 (viii) Lead-based paint abatement and lead-based paint hazard
14 reduction methods, including restricted practices.

15 (ix) Interior dust abatement/cleanup or lead-based paint hazard
16 control and reduction methods.

17 (x) Soil and exterior dust abatement or lead-based paint hazard
18 control and reduction methods.

19 (xi) Clearance standards and testing.

20 (xii) Cleanup and waste disposal.

21 (xiii) Recordkeeping.

22 (d) Project designer.

23 (i) Role and responsibilities of a project designer.

24 (ii) Development and implementation of an occupant protection
25 plan for large-scale abatement projects.

26 (iii) Lead-based paint abatement and lead-based paint hazard
27 reduction methods, including restricted practices for large-scale
28 abatement projects.

29 (iv) Interior dust abatement/cleanup or lead hazard control
30 and reduction methods for large-scale abatement projects.

31 (v) Clearance standards and testing for large scale abatement
32 projects.

33 (vi) Integration of lead-based paint abatement methods with
34 modernization and rehabilitation projects for large scale abatement
35 projects.

36 (e) Abatement worker. Instruction in the topics described in
37 paragraphs (4)(e)(iv), (v), (vi), and (vii) of this section must be
38 included in the hands-on portion of the course.

39 (i) Role and responsibilities of an abatement worker.

40 (ii) Background information on lead and its adverse health
41 effects.

42 (iii) Background information on federal, state, and local
43 regulations and guidance that pertain to lead-based paint abatement.

44 (iv) Lead-based paint hazard recognition and control.

45 (v) Lead-based paint abatement and lead-based paint hazard
46 reduction methods, including restricted practices.

47 (vi) Interior dust abatement methods/cleanup or lead-based
48 paint hazard reduction.

49 (vii) Soil and exterior dust abatement methods or lead-based
50 paint hazard reduction.

51 (f) Renovator. Instruction in the topics described in

1 paragraphs (4)(f)(iv), (vi), (vii), and (viii) of this section must
2 be included in the hands-on portion of the course.

3 (i) Role and responsibility of a renovator.

4 (ii) Background information on lead and its adverse health
5 effects.

6 (iii) Background information on EPA, HUD, OSHA, and other
7 federal, state, and local regulations and guidance that pertains to
8 lead-based paint and renovation activities.

9 (iv) Procedures for using acceptable test kits to determine
10 whether paint is lead-based paint.

11 (v) Procedures for collecting a paint chip sample and sending
12 it to a laboratory recognized by EPA under section 405(b) of TSCA.

13 (vi) Renovation methods to minimize the creation of dust and
14 lead-based paint hazards.

15 (vii) Interior and exterior containment and cleanup methods.

16 (viii) Methods to ensure that the renovation has been properly
17 completed, including cleaning verification, and clearance testing.

18 (ix) Waste handling and disposal.

19 (x) Providing on-the-job training to other workers.

20 (xi) Record preparation.

21 (g) Dust sampling technician. Instruction in the topics
22 described in paragraphs (4)(g)(iv) and (vi) of this section must be
23 included in the hands-on portion of the course.

24 (i) Role and responsibility of a dust sampling technician.

25 (ii) Background information on lead and its adverse health
26 effects.

27 (iii) Background information on federal, state, and local
28 regulations and guidance that pertains to lead-based paint and
29 renovation activities.

30 (iv) Dust sampling methodologies.

31 (v) Clearance standards and testing.

32 (vi) Report preparation.

33 (5) Requirements for the accreditation of refresher training
34 programs. A training program may seek accreditation to offer
35 refresher training courses in any of the following disciplines:
36 Inspector, risk assessor, supervisor, project designer, abatement
37 worker, renovator, and dust sampling technician. To obtain director
38 accreditation to offer refresher training, a training program must
39 meet the following minimum requirements:

40 (a) Each refresher course shall review the curriculum topics
41 of the full-length courses listed under paragraph (4) of this section,
42 as appropriate. In addition, to become accredited to offer refresher
43 training courses, training programs shall ensure that their courses
44 of study include, at a minimum, the following:

45 (i) An overview of current safety practices relating to
46 lead-based paint in general, as well as specific information
47 pertaining to the appropriate discipline;

48 (ii) Current laws and regulations relating to lead-based paint
49 in general, as well as specific information pertaining to the
50 appropriate discipline; and

51 (iii) Current technologies relating to lead-based paint in

1 general, as well as specific information pertaining to the appropriate
2 discipline;

3 (b) Refresher courses for inspector, risk assessor, supervisor,
4 and abatement worker must last a minimum of 8 training hours.
5 Refresher courses for project designer, renovator, and dust sampling
6 technician must last a minimum of 4 training hours. Refresher courses
7 for all disciplines except project designer must include a hands-on
8 component;

9 (c) Except for project designer courses, for all other courses
10 offered, the training program shall conduct a hands-on assessment,
11 and at the completion of the course, a course test;

12 (d) A training program may apply for accreditation of a
13 refresher course concurrently with its application for accreditation
14 of the corresponding training course as described in paragraph (2)
15 of this section. If so, the director shall use the approval procedure
16 described in paragraph (2) of this section. In addition, the minimum
17 requirements contained in paragraphs (3)(a) through 3)(e) and (3)(g)
18 through (3)(n), and (5)(a) through (5)(c) of this section shall also
19 apply; and

20 (e) A training program seeking accreditation to offer refresher
21 training courses only shall submit a written application to the
22 director containing the following information:

23 (i) The refresher training program's name, address, and
24 telephone number;

25 (ii) A list of courses for which it is applying for
26 accreditation;

27 (iii) The name and documentation of the qualifications of the
28 training program manager;

29 (iv) The name(s) and documentation of the qualifications of
30 the principal instructor(s);

31 (v) A statement signed by the training program manager
32 certifying that the refresher training program meets the minimum
33 requirements established in paragraph (3) of this section, except
34 for the requirements in paragraph (3)(f) of this section. If a
35 training program uses EPA-developed model training materials, the
36 training manager shall include a statement certifying that, as well;

37 (vi) If the refresher training course materials are not based
38 on EPA-developed model training materials, the training program's
39 application for accreditation shall include:

40 (A) A copy of the student and instructor manuals to be used
41 for each course; and

42 (B) A copy of the course agenda for each course;

43 (vii) All refresher training programs shall include in their
44 application for accreditation the following:

45 (A) A description of the facilities and equipment to be used
46 for lecture and hands-on training;

47 (B) A copy of the course test blueprint for each course;

48 (C) A description of the activities and procedures that will
49 be used for conducting the assessment of hands-on skills for each
50 course (if applicable); and

51 (D) A copy of the quality control plan as described in paragraph

1 (3)(i) of this section;

2 (viii) The requirements in paragraphs (3)(a) through (3)(e),
3 and (3)(g) through (3)(n) of this section apply to refresher training
4 providers; and

5 (ix) If a refresher training program meets the requirements
6 listed in this paragraph, then the director shall approve the
7 application for accreditation no more than 180 days after receiving
8 a complete application from the refresher training program. In the
9 case of approval, a certificate of accreditation shall be sent to
10 the applicant. In the case of disapproval, a letter describing the
11 reasons for disapproval shall be sent to the applicant. Prior to
12 disapproval, the director may, at the director's discretion, work
13 with the applicant to address inadequacies in the application for
14 accreditation. The director may also request additional materials
15 retained by the refresher training program under paragraph (8) of
16 this section. If a refresher training program's application is
17 disapproved, the program may reapply for accreditation at any time.

18 (6) Re-accreditation of training programs.

19 (a) Unless re-accredited, a training program's accreditation,
20 including refresher training accreditation, shall expire 4 years after
21 the date of issuance. If a training program meets the requirements
22 of this section, the training program shall be re-accredited.

23 (b) A training program seeking re-accreditation shall submit
24 an application to the director no later than 180 days before its
25 accreditation expires. If a training program does not submit its
26 application for re-accreditation by that date, the director cannot
27 guarantee that the program will be re-accredited before the end of
28 the accreditation period.

29 (c) The training program's application for re-accreditation
30 shall contain:

31 (i) The training program's name, address, and telephone number;

32 (ii) A list of courses for which it is applying for
33 re-accreditation;

34 (iii) The name and qualifications of the training program
35 manager;

36 (iv) The name(s) and qualifications of the principal
37 instructor(s);

38 (v) A description of any changes to the training facility,
39 equipment or course materials since its last application was approved
40 that adversely affects the students' ability to learn;

41 (vi) A statement signed by the program manager stating:

42 (A) That the training program complies at all times with all
43 requirements in paragraphs (3) and (5) of this section, as applicable;
44 and

45 (B) The recordkeeping and reporting requirements of paragraph
46 (8) of this section shall be followed; and

47 (vii) A payment of appropriate fees in accordance with the
48 current Department of Environmental Quality Fee Schedule.

49 (d) Upon request, the training program shall allow the director
50 or the director's authorized representative to audit the training
51 program to verify the contents of the application for re-accreditation

1 as described in paragraph (6)(c) of this section.

2 (7) Suspension, revocation, and modification of accredited
3 training programs.

4 (a) The director may, after notice and an opportunity, for
5 hearing, suspend, revoke, or modify training program accreditation,
6 including refresher training accreditation, if a training program,
7 training manager, or other person with supervisory authority over
8 the training program has:

9 (i) Misrepresented the contents of a training course to the
10 director and/or the student population;

11 (ii) Failed to submit required information or notifications
12 in a timely manner;

13 (iii) Failed to maintain required records;

14 (iv) Falsified accreditation records, instructor
15 qualifications, or other accreditation-related information or
16 documentation;

17 (v) Failed to comply with the training standards and
18 requirements in this section;

19 (vi) Failed to comply with federal, state, or local lead-based
20 paint statutes or regulations; or

21 (vii) Made false or misleading statements to the director in
22 its application for accreditation or re-accreditation which the
23 director relied upon in approving the application.

24 (b) In addition to an administrative or judicial finding of
25 violation, execution of a consent agreement in settlement of an
26 enforcement action constitutes, for purposes of this section, evidence
27 of a failure to comply with relevant statutes or regulations.

28 (8) Training program recordkeeping requirements.

29 (a) Accredited training programs shall maintain, and make
30 available to the director or the director's authorized representative,
31 upon request, the following records:

32 (i) All documents specified in paragraph (3)(d) of this section
33 that demonstrate the qualifications listed in paragraphs (3)(a) and
34 (3)(b) of this section of the training manager and principal
35 instructors;

36 (ii) Current curriculum/course materials and documents
37 reflecting any changes made to these materials;

38 (iii) The course test blueprint;

39 (iv) Information regarding how the hands-on assessment is
40 conducted including, but not limited to:

41 (A) Who conducts the assessment;

42 (B) How the skills are graded;

43 (C) What facilities are used; and

44 (D) The pass/fail rate;

45 (v) The quality control plan as described in paragraph (3)(i)
46 of this section;

47 (vi) Results of the students' hands-on skills assessments and
48 course tests, and a record of each student's course completion
49 certificate;

50 (vii) Any other material not listed in paragraphs (8)(a)(i)
51 through (8)(a)(vi) of this section that was submitted to the director

1 as part of the program's application for accreditation.

2 (viii) For renovator refresher and dust sampling technician
3 refresher courses, a copy of each trainee's prior course completion
4 certificate showing that each trainee was eligible to take the
5 refresher course; and

6 (ix) For course modules delivered in an electronic format, a
7 record of each student's log-ins, launches, progress, and completion,
8 and a copy of the electronic learning completion certificate for each
9 student.

10 (b) The training program must retain records pertaining to
11 renovator, dust sampling technician and lead-based paint activities
12 courses at the address specified on the training program accreditation
13 application (or as modified in accordance with paragraph (8)(c) of
14 this section) for the following minimum periods:

15 (i) Records pertaining to lead-based paint activities courses
16 must be retained for a minimum of 3 years and 6 months;

17 (ii) Records pertaining to renovator or dust sampling
18 technician courses offered must be retained for a minimum of 5 years
19 and 6 months.

20 (c) The training program shall notify the director in writing
21 within 30 days of changing the address specified on its training
22 program accreditation application or transferring the records from
23 that address.

24 (9) Amendment of accreditation.

25 (a) A training program must amend its accreditation within 90
26 days of the date a change occurs to information included in the
27 program's most recent application. If the training program fails to
28 amend its accreditation within 90 days of the date the change occurs,
29 the program may not provide renovator, dust sampling technician, or
30 lead-based paint activities training until its accreditation is
31 amended.

32 (b) To amend an accreditation, a training program must submit
33 a completed Division of Air Quality Lead-Based Paint Application for
34 Course Accreditation, signed by an authorized agent of the training
35 provider, noting on the form that it is submitted as an amendment
36 and indicating the information that has changed.

37 (c) Training managers, principal instructors, permanent
38 training locations. If the amendment includes a new training program
39 manager, any new or additional principal instructor(s), or any new
40 permanent training location(s), the training provider is not permitted
41 to provide training under the new training manager or offer courses
42 taught by any new principal instructor(s) or at the new training
43 location(s) until the director either approves the amendment or 30
44 days have elapsed, whichever occurs earlier. Except:

45 (i) If the amendment includes a new training program manager
46 or new or additional principal instructor that was identified in a
47 training provider accreditation application that the director has
48 already approved under this section, the training provider may begin
49 to provide training under the new training manager or offer courses
50 taught by the new principal instructor on an interim basis as soon
51 as the provider submits the amendment to the director. The training

1 provider may continue to provide training under the new training
2 manager or offer courses taught by the new principal instructor if
3 the director approves the amendment or if the director does not
4 disapprove the amendment within 30 days.

5 (ii) If the amendment includes a new permanent training
6 location, the training provider may begin to provide training at the
7 new permanent training location on an interim basis as soon as the
8 provider submits the amendment to the director. The training provider
9 may continue to provide training at the new permanent training location
10 if the director approves the amendment or if the director does not
11 disapprove the amendment within 30 days.

12
13 **R307-842-2. Certification of Individuals and Firms Engaged in**
14 **Lead-Based Paint Activities: Target Housing and Child-Occupied**
15 **Facilities.**

16 (1) Certification of individuals.

17 (a) Individuals seeking certification by the director to engage
18 in lead-based paint activities must either:

19 (i) Submit to the director an application demonstrating that
20 they meet the requirements established in paragraphs (2) or (3) of
21 this section for the particular discipline for which certification
22 is sought; or

23 (ii) Submit to the director an application with a copy of a
24 valid lead-based paint activities certification (or equivalent) from
25 the EPA or a state or tribal program that has been authorized by EPA
26 pursuant to subpart Q of 40 CFR 745; or

27 (iii) For supervisor, inspector, and/or risk assessor
28 certification, submit to the director an application with a copy of
29 a valid lead-based paint training certificate from an EPA-accredited,
30 or EPA-authorized state or tribal-accredited lead-specific training
31 in the appropriate discipline and pass the certification exam in the
32 appropriate discipline offered by the director.

33 (b) Following the submission of an application demonstrating
34 that all the requirements of this section have been met, the director
35 shall certify an applicant as an inspector, risk assessor, supervisor,
36 project designer, or abatement worker, as appropriate.

37 (c) Upon receiving director certification, individuals
38 conducting lead-based paint activities shall comply with the work
39 practice standards for performing the appropriate lead-based paint
40 activities as established in R307-842-3.

41 (d) It shall be a violation of state administrative rules for
42 an individual to conduct any of the lead-based paint activities
43 described in R307-842-3 if that individual has not been certified
44 by the director pursuant to this section to do so.

45 (e) Individuals applying for certification must submit the
46 appropriate fees in accordance with the current Department of
47 Environmental Quality Fee Schedule.

48 (2) Inspector, risk assessor or supervisor.

49 (a) To become certified by the director as an inspector, risk
50 assessor, or supervisor, pursuant to paragraph (1)(a)(i) of this
51 section, an individual must:

1 (i) Successfully complete an accredited course in the
2 appropriate discipline and receive a course completion certificate
3 from an accredited training program;

4 (ii) Pass the certification exam in the appropriate discipline
5 offered by the director; and

6 (iii) Meet or exceed the following experience and/or education
7 requirements:

8 (A) Inspectors. No additional experience and/or education
9 requirements;

10 (B) Risk assessors.

11 (I) Successful completion of an accredited training course for
12 inspectors; and

13 (II) Bachelor's degree and 1 year of experience in a related
14 field (e.g., lead, asbestos, environmental remediation work, or
15 construction), or an Associates degree and 2 years experience in a
16 related field (e.g., lead, asbestos, environmental remediation work,
17 or construction); or

18 (III) Certification as an industrial hygienist, professional
19 engineer, registered architect and/or certification in a related
20 engineering/health/environmental field (e.g., safety professional,
21 environmental scientist); or

22 (IV) A high school diploma (or equivalent), and at least 3 years
23 of experience in a related field (e.g., lead, asbestos, environmental
24 remediation work or construction);

25 (C) Supervisor.

26 (I) One year of experience as a certified lead-based paint
27 abatement worker; or

28 (II) At least 2 years of experience in a related field (e.g.,
29 lead, asbestos, or environmental remediation work) or in the building
30 trades.

31 (b) The following documents shall be recognized by the director
32 as evidence of meeting the requirements listed in (2)(b)(iii) of this
33 paragraph:

34 (i) Official academic transcripts or diploma, as evidence of
35 meeting the education requirements;

36 (ii) Resumes, letters of reference, or documentation of work
37 experience, as evidence of meeting the work experience requirements;
38 and

39 (iii) Course completion certificates from lead-specific or
40 other related training courses, issued by accredited training
41 programs, as evidence of meeting the training requirements.

42 (c) In order to take the certification examination for a
43 particular discipline an individual must:

44 (i) Successfully complete an accredited course in the
45 appropriate discipline and receive a course completion certificate
46 from an accredited training program; and

47 (ii) Meet or exceed the education and/or experience
48 requirements in paragraph (2)(a)(iii) of this section.

49 (d) The course completion certificate shall serve as interim
50 certification for an individual until the next available opportunity
51 to take the certification exam. Such interim certification shall

1 expire 6 months after issuance.

2 (e) After passing the appropriate certification exam and
3 submitting an application demonstrating that he/she meets the
4 appropriate training, education, and/or experience prerequisites
5 described in paragraph (2)(a) of this section, an individual shall
6 be issued a certificate by the director. To maintain certification,
7 an individual must be re-certified as described in paragraph (4) of
8 this section.

9 (f) An individual may take the certification exam no more than
10 three times within 6 months of receiving a course completion
11 certificate.

12 (g) If an individual does not pass the certification exam and
13 receive a certificate within 6 months of receiving his/her course
14 completion certificate, the individual must retake the appropriate
15 course from an accredited training program before reapplying for
16 certification from the director.

17 (3) Abatement worker and project designer.

18 (a) To become certified by the director as an abatement worker
19 or project designer, pursuant to paragraph (1)(a)(i) of this section,
20 an individual must:

21 (i) Successfully complete an accredited course in the
22 appropriate discipline and receive a course completion certificate
23 from an accredited training program; and

24 (ii) Meet or exceed the following additional experience and/or
25 education requirements:

26 (A) Abatement workers. No additional experience and/or
27 education requirements; and

28 (B) Project designers.

29 (I) Successful completion of an accredited training course for
30 supervisors;

31 (II) Bachelor's degree in engineering, architecture, or a
32 related profession, and 1 year of experience in building construction
33 and design or a related field; or

34 (III) Four years of experience in building construction and
35 design or a related field.

36 (b) The following documents shall be recognized by the director
37 as evidence of meeting the requirements listed in this paragraph:

38 (i) Official academic transcripts or diploma, as evidence of
39 meeting the education requirements;

40 (ii) Resumes, letters of reference, or documentation of work
41 experience, as evidence of meeting the work experience requirements;
42 and

43 (iii) Course completion certificates from lead-specific or
44 other related training courses, issued by accredited training
45 programs, as evidence of meeting the training requirements.

46 (c) The course completion certificate shall serve as an interim
47 certification until certification from the director is received, but
48 shall be valid for no more than 6 months from the date of completion.

49 (d) After successfully completing the appropriate training
50 courses and meeting any other qualifications described in paragraph
51 (3)(a) of this section, an individual shall be issued a certificate

1 from the director. To maintain certification, an individual must
2 be re-certified as described in paragraph (4) of this section.

3 (4) Re-certification.

4 (a) To maintain certification in a particular discipline, a
5 certified individual shall apply to and be re-certified by the director
6 in that discipline by the director either:

7 (i) Every 3 years if the individual completed a training course
8 with a course test and hands-on assessment; or

9 (ii) Every 5 years if the individual completed a training course
10 with a proficiency test.

11 (b) An individual shall be re-certified if the individual
12 successfully completes the appropriate accredited refresher training
13 course and submits a valid copy of the appropriate refresher course
14 completion certificate. If more than 3 years but less than 4 years
15 have passed since certification or re-certification for an individual
16 that completed an initial or a refresher training course with a course
17 test and hands-on assessment, or if more than 5 years but less than
18 6 years have passed since certification or re-certification for an
19 individual that completed an initial or a refresher training course
20 with a proficiency test for the supervisor, inspector, and/or risk
21 assessor disciplines, then the individual must also pass the
22 certification exam in the appropriate discipline offered by the
23 director.

24 (c) Individuals applying for re-certification must submit the
25 appropriate fees in accordance with the current Department of
26 Environmental Quality Fee Schedule.

27 (5) Certification of firms.

28 (a) All firms which perform or offer to perform any of the
29 lead-based paint activities or renovations described in R307-842-3
30 shall be certified by the director.

31 (b) A firm seeking certification shall submit to the director
32 a letter attesting that the firm shall only employ appropriately
33 certified employees to conduct lead-based paint activities, and that
34 the firm and its employees shall follow the work practice standards
35 in R307-842-3 for conducting lead-based paint activities.

36 (c) From the date of receiving the firm's letter requesting
37 certification, the director shall have 90 days to approve or disapprove
38 the firm's request for certification. Within that time, the director
39 shall respond with either a certificate of approval or a letter
40 describing the reasons for disapproval.

41 (d) The firm shall maintain all records pursuant to the
42 requirements in R307-842-3.

43 (e) Firms may apply to the director for certification to engage
44 in lead-based paint activities pursuant to this section.

45 (f) Firms applying for certification must submit the
46 appropriate fees in accordance with the current Department of
47 Environmental Quality Fee Schedule.

48 (g) To maintain certification a firm shall submit appropriate
49 fees in accordance with the current Department of Environmental
50 Quality Fee Schedule.

51 (6) Suspension, revocation, and modification of certifications

1 of individuals engaged in lead-based paint activities.

2 (a) The director may, after notice and opportunity for hearing,
3 suspend, revoke, or modify an individual's certification if an
4 individual has:

- 5 (i) Obtained training documentation through fraudulent means;
6 (ii) Gained admission to and completed an accredited training
7 program through misrepresentation of admission requirements;
8 (iii) Obtained certification through misrepresentation of
9 certification requirements or related documents dealing with
10 education, training, professional registration, or experience;
11 (iv) Performed work requiring certification at a job site
12 without having proof of certification;
13 (v) Permitted the duplication or use of the individual's own
14 certificate by another;
15 (vi) Performed work for which certification is required, but
16 for which appropriate certification has not been received;
17 (vii) Failed to comply with the appropriate work practice
18 standards for lead-based paint activities at R307-842-3; or
19 (viii) Failed to comply with federal, state, or local lead-based
20 paint statutes or regulations.

21 (b) In addition to an administrative or judicial finding of
22 violation, for purposes of this section only, execution of a consent
23 agreement in settlement of an enforcement action constitutes evidence
24 of a failure to comply with relevant statutes or regulations.

25 (7) Suspension, revocation, and modification of certifications
26 of firms engaged in lead-based paint activities.

27 (a) The director may, after notice and opportunity for hearing,
28 suspend, revoke, or modify a firm's certification if a firm has:

- 29 (i) Performed work requiring certification at a job site with
30 individuals who are not certified;
31 (ii) Failed to comply with the work practice standards
32 established in R307-842-3;
33 (iii) Misrepresented facts in its letter of application for
34 certification to the director;
35 (iv) Failed to maintain required records; or
36 (v) Failed to comply with federal, state, or local lead-based
37 paint statutes or regulations.

38 (b) In addition to an administrative or judicial finding of
39 violation, for purposes of this section only, execution of a consent
40 agreement in settlement of an enforcement action constitutes evidence
41 of a failure to comply with relevant statutes or regulations.

42
43 **R307-842-3. Work Practice Standards for Conducting Lead-Based Paint**
44 **Activities: Target Housing and Child-Occupied Facilities.**

45 (1) Effective date, applicability, and terms.

46 (a) All lead-based paint activities shall be performed pursuant
47 to the work practice standards contained in this section.

48 (b) When performing any lead-based paint activity described
49 by the certified individual as an inspection, lead-hazard screen,
50 risk assessment, or abatement, a certified individual must perform
51 that activity in compliance with the appropriate requirements below.

1 (c) Documented methodologies that are appropriate for this
2 section are found in the following: the HUD Guidelines for the
3 Evaluation and Control of Lead-Based Paint Hazards in Housing, the
4 EPA Guidance on Residential Lead-Based Paint, Lead-Contaminated Dust,
5 and Lead-Contaminated Soil, the EPA Residential Sampling for Lead:
6 Protocols for Dust and Soil Sampling (EPA report number
7 7474-R-95-001), and other equivalent methods and guidelines.

8 (d) Clearance levels are appropriate for the purposes of this
9 section may be found in the EPA Guidance on Residential Lead-Based
10 Paint, Lead-Contaminated Dust, and Lead Contaminated Soil or other
11 equivalent guidelines.

12 (2) Inspection.

13 (a) An inspection shall be conducted only by a person certified
14 by the director as an inspector or risk assessor and, if conducted,
15 must be conducted according to the procedures in this paragraph.

16 (b) When conducting an inspection, the following locations
17 shall be selected according to documented methodologies and tested
18 for the presence of lead-based paint:

19 (i) In a residential dwelling and child-occupied facility, each
20 component with a distinct painting history and each exterior component
21 with a distinct painting history shall be tested for lead-based paint,
22 except those components that the inspector or risk assessor determines
23 to have been replaced after 1978, or to not contain lead-based paint;
24 and

25 (ii) In a multi-family dwelling or child-occupied facility,
26 each component with a distinct painting history in every common area,
27 except those components that the inspector or risk assessor determines
28 to have been replaced after 1978, or to not contain lead-based paint.

29 (c) Paint shall be sampled in the following manner:

30 (i) The analysis of paint to determine the presence of lead
31 shall be conducted using documented methodologies which incorporate
32 adequate quality control procedures; and/or

33 (ii) All collected paint chip samples shall be analyzed
34 according to paragraph (6) of this section to determine if they contain
35 detectable levels of lead that can be quantified numerically.

36 (d) The certified inspector or risk assessor shall prepare an
37 inspection report which shall include the following information:

38 (i) Date of each inspection;

39 (ii) Address of building;

40 (iii) Date of construction;

41 (iv) Apartment numbers (if applicable);

42 (v) Name, address, and telephone number of the owner or owners
43 of each residential dwelling or child-occupied facility;

44 (vi) Name, signature, and certification number of each
45 certified inspector and/or risk assessor conducting testing;

46 (vii) Name, address, and telephone number of the certified firm
47 employing each inspector and/or risk assessor, if applicable;

48 (viii) Each testing method and device and/or sampling procedure
49 employed for paint analysis, including quality control data and, if
50 used, the serial number of any x-ray fluorescence (XRF) device;

51 (ix) Specific locations of each painted component tested for

1 the presence of lead-based paint; and

2 (x) The results of the inspection expressed in terms appropriate
3 to the sampling method used.

4 (3) Lead hazard screen.

5 (a) A lead hazard screen shall be conducted only by a person
6 certified by the director as a risk assessor.

7 (b) If conducted, a lead hazard screen shall be conducted as
8 follows:

9 (i) Background information regarding the physical
10 characteristics of the residential dwelling or child-occupied
11 facility and occupant use patterns that may cause lead-based paint
12 exposure to one or more children age 6 years and under shall be
13 collected;

14 (ii) A visual inspection of the residential dwelling or
15 child-occupied facility shall be conducted to:

16 (A) Determine if any deteriorated paint is present; and

17 (B) Locate at least two dust sampling locations;

18 (iii) If deteriorated paint is present, each surface with
19 deteriorated paint, which is determined, using documented
20 methodologies, to be in poor condition and to have a distinct painting
21 history, shall be tested for the presence of lead;

22 (iv) In residential dwellings, two composite dust samples shall
23 be collected, one from the floors and the other from the windows,
24 in rooms, hallways, or stairwells where one or more children, age
25 6 and under, are most likely to come in contact with dust; and

26 (v) In multi-family dwellings and child-occupied facilities,
27 in addition to the floor and window samples required in paragraph
28 (3)(b)(iv) of this section, the risk assessor shall also collect
29 composite dust samples from common areas where one or more children,
30 age 6 and under, are most likely to come into contact with dust.

31 (c) Dust samples shall be collected and analyzed in the
32 following manner:

33 (i) All dust samples shall be taken using documented
34 methodologies that incorporate adequate quality control procedures;
35 and

36 (ii) All collected dust samples shall be analyzed according
37 to paragraph (6) of this section to determine if they contain
38 detectable levels of lead that can be quantified numerically.

39 (d) Paint shall be sampled in the following manner:

40 (i) The analysis of paint to determine the presence of lead
41 shall be conducted using documented methodologies which incorporate
42 adequate quality control procedures; and/or

43 (ii) All collected paint chip samples shall be analyzed
44 according to paragraph (6) of this section to determine if they contain
45 detectable levels of lead that can be quantified numerically.

46 (e) The risk assessor shall prepare a lead hazard screen report,
47 which shall include the following information:

48 (i) The information required in a risk assessment report as
49 specified in paragraph (4) of this section, including paragraphs
50 (4)(k)(i) through (4)(k)(xiv), and excluding paragraphs (4)(k)(xv)
51 through (4)(k)(xviii) of this section. Additionally, any background

1 information collected pursuant to paragraph (3)(b)(i) of this section
2 shall be included in the lead hazard screen report; and

3 (ii) Recommendations, if warranted, for a follow-up risk
4 assessment, and as appropriate, any further actions.

5 (4) Risk assessment.

6 (a) A risk assessment shall be conducted only by a person
7 certified by the director as a risk assessor and, if conducted, must
8 be conducted according to the procedures in this paragraph.

9 (b) A visual inspection for risk assessment of the residential
10 dwelling or child-occupied facility shall be undertaken to locate
11 the existence of deteriorated paint, assess the extent and causes
12 of the deterioration, and other potential lead-based paint hazards.

13 (c) Background information regarding the physical
14 characteristics of the residential dwelling or child-occupied
15 facility and occupant use patterns that may cause lead-based paint
16 exposure to one or more children age 6 years and under shall be
17 collected.

18 (d) The following surfaces which are determined, using
19 documented methodologies, to have a distinct painting history, shall
20 be tested for the presence of lead:

21 (i) Each friction surface or impact surface with visibly
22 deteriorated paint; and

23 (ii) All other surfaces with visibly deteriorated paint.

24 (e) In residential dwellings, dust samples (either composite
25 or single-surface samples) from the interior window sill(s) and floor
26 shall be collected and analyzed for lead concentration in all living
27 areas where one or more children, age 6 and under, are most likely
28 to come into contact with dust.

29 (f) For multi-family dwellings and child-occupied facilities,
30 the samples required in paragraph (4)(d) of this section shall be
31 taken. In addition, interior window sill and floor dust samples
32 (either composite or single-surface samples) shall be collected and
33 analyzed for lead concentration in the following locations:

34 (i) Common areas adjacent to the sampled residential dwelling
35 or child-occupied facility; and

36 (ii) Other common areas in the building where the risk assessor
37 determines that one or more children, age 6 and under, are likely
38 to come into contact with dust.

39 (g) For child-occupied facilities, interior window sill and
40 floor dust samples (either composite or single-surface samples) shall
41 be collected and analyzed for lead concentration in each room, hallway,
42 or stairwell utilized by one or more children, age 6 and under, and
43 in other common areas in the child-occupied facility where one or
44 more children, age 6 and under, are likely to come into contact with
45 dust.

46 (h) Soil samples shall be collected and analyzed for lead
47 concentrations in the following locations:

48 (i) Exterior play areas where bare soil is present;

49 (ii) The rest of the yard (i.e., non-play areas) where bare
50 soil is present; and

51 (iii) Dripline/foundation areas where bare soil is present.

1 (i) Any paint, dust, or soil sampling or testing shall be
2 conducted using documented methodologies that incorporate adequate
3 quality control procedures.

4 (j) Any collected paint chip, dust, or soil samples shall be
5 analyzed according to paragraph (6) of this section to determine if
6 they contain detectable levels of lead that can be quantified
7 numerically.

8 (k) The certified risk assessor shall prepare a risk assessment
9 report which shall include the following information:

10 (i) Date of assessment;

11 (ii) Address of each building;

12 (iii) Date of construction of buildings;

13 (iv) Apartment number (if applicable);

14 (v) Name, address, and telephone number of each owner of each
15 building;

16 (vi) Name, signature, and certification of the certified risk
17 assessor conducting the assessment;

18 (vii) Name, address, and telephone number of the certified firm
19 employing each certified risk assessor if applicable;

20 (viii) Name, address, and telephone number of each recognized
21 laboratory conducting analysis of collected samples;

22 (ix) Results of the visual inspection;

23 (x) Testing method and sampling procedure for paint analysis
24 employed;

25 (xi) Specific locations of each painted component tested for
26 the presence of lead;

27 (xii) All data collected from on-site testing, including
28 quality control data and, if used, the serial number of any XRF device.

29 (xiii) All results of laboratory analysis on collected paint,
30 soil, and dust samples;

31 (xiv) Any other sampling results;

32 (xv) Any background information collected pursuant to paragraph
33 (4)(c) of this section;

34 (xvi) To the extent that they are used as part of the lead-based
35 paint hazard determination, the results of any previous inspections
36 or analyses for the presence of lead-based paint, or other assessments
37 of lead-based paint-related hazards;

38 (xvii) A description of the location, type, and severity of
39 identified lead-based paint hazards and any other potential lead
40 hazards; and

41 (xviii) A description of interim controls and/or abatement
42 options for each identified lead-based paint hazard and a suggested
43 prioritization for addressing each hazard. If the use of an
44 encapsulant or enclosure is recommended, the report shall recommend
45 a maintenance and monitoring schedule for the encapsulant or
46 enclosure.

47 (5) Abatement.

48 (a) An abatement shall be conducted only by an individual
49 certified by the director, and if conducted, shall be conducted
50 according to the procedures in this paragraph.

51 (b) A certified supervisor is required for each abatement

1 project and shall be onsite during all work site preparation and during
2 the post-abatement cleanup of work areas. At all other times when
3 abatement activities are being conducted, the certified supervisor
4 shall be onsite or available by telephone, pager or answering service,
5 and able to be present at the work site in no more than 2 hours.

6 (c) The certified supervisor and the certified firm employing
7 that supervisor shall ensure that all abatement activities are
8 conducted according to the requirements of this section and all other
9 federal, state, and local requirements.

10 (d) A certified firm must notify the director of lead-based
11 paint abatement activities as follows:

12 (i) Except as provided in paragraph (5)(d)(ii) of this section,
13 the director must be notified prior to conducting lead-based paint
14 abatement activities. The original notification must be received
15 by the director at least 5 business days before the start date of
16 any lead-based paint abatement activities;

17 (ii) Notification for lead-based paint abatement activities
18 required in response to an elevated blood lead level (EBL)
19 determination, or federal, state, tribal, or local emergency abatement
20 order should be received by the director as early as possible before,
21 but must be received no later than the start date of the lead-based
22 paint abatement activities. Should the start date and/or location
23 provided to the director change, an updated notification must be
24 received by the director on or before the start date provided to the
25 director. Documentation showing evidence of an EBL determination
26 or a copy of the federal/state/tribal/local emergency abatement order
27 must be included in the written notification to take advantage of
28 this abbreviated notification period;

29 (iii) Except as provided in paragraph (5)(d)(ii) of this
30 section, updated notification must be provided to the director for
31 lead-based paint abatement activities that will begin on a date other
32 than the start date specified in the original notification, as follows:

33 (A) For lead-based paint abatement activities beginning prior
34 to the start date provided to the director an updated notification
35 must be received by the director at least 5 business days before the
36 new start date included in the notification; and

37 (B) For lead-based paint abatement activities beginning after
38 the start date provided to the director an updated notification must
39 be received by the director on or before the start date provided to
40 the director;

41 (iv) Except as provided in paragraph (5)(d)(ii) of this section,
42 updated notification must be provided to the director for any change
43 in location of lead-based paint abatement activities at least 5
44 business days prior to the start date provided to the director;

45 (v) Updated notification must be provided to the director when
46 lead-based paint abatement activities are canceled, or when there
47 are other significant changes including, but not limited to, when
48 the square footage or acreage to be abated changes by more than 20%.

49 This updated notification must be received by the director on or
50 before the start date provided to the director, or if work has already
51 begun, within 24 hours of the change;

- 1 (vi) The following must be included in each notification:
2 (A) Notification type (original, updated, or cancellation);
3 (B) Date when lead-based paint abatement activities will start;
4 (C) Date when lead-based paint abatement activities will end
5 (approximation using best professional judgment);
6 (D) Firm's name, Utah lead-based paint firm certification
7 number, address, and telephone number;
8 (E) Type of building (e.g., single family dwelling,
9 multi-family dwelling, and/or child-occupied facilities) on/in which
10 abatement work will be performed;
11 (F) Property name (if applicable);
12 (G) Property address including apartment or unit number(s) (if
13 applicable) for abatement work;
14 (H) Documentation showing evidence of an EBL determination or
15 a copy of the federal/state/tribal/local emergency abatement order,
16 if using the abbreviated time period as described in paragraph
17 (5)(d)(ii) of this section;
18 (I) Name and Utah lead-based paint individual certification
19 number of the project supervisor;
20 (J) Approximate square footage/acreage to be abated;
21 (K) Brief description of abatement activities to be performed;
22 and
23 (L) Name, title, and signature of the representative of the
24 certified firm who prepared the notification;
25 (vii) Notification must be accomplished using any of the
26 following methods: Written notification, or electronically using the
27 Utah Division of Air Quality electronic notification system. Written
28 notification can be accomplished using either the sample form titled
29 "Lead-Based Paint Abatement Project Notification" or similar form
30 containing the information required in paragraph (5)(d)(vi) of this
31 section. All written notifications must be delivered by United States
32 Postal Service, fax, commercial delivery service, or hand delivery
33 on or before the applicable date. Instructions and sample forms can
34 be obtained from the Utah Division of Air Quality Lead-Based Paint
35 Program web site;
36 (viii) Lead-based paint abatement activities shall not begin
37 on a date, or at a location other than that specified in either an
38 original or updated notification, in the event of changes to the
39 original notification; and
40 (ix) No firm or individual shall engage in lead-based paint
41 abatement activities, as defined in R307-840-2, prior to notifying
42 the director of such activities according to the requirements of this
43 paragraph.
44 (e) A written occupant protection plan shall be developed for
45 all abatement projects and shall be prepared according to the following
46 procedures:
47 (i) The occupant protection plan shall be unique to each
48 residential dwelling or child-occupied facility and be developed prior
49 to the abatement. The occupant protection plan shall describe the
50 measures and management procedures that will be taken during the
51 abatement to protect the building occupants from exposure to any

1 lead-based paint hazards; and

2 (ii) A certified supervisor or project designer shall prepare
3 the occupant protection plan.

4 (f) The work practices listed below shall be restricted during
5 an abatement as follows:

6 (i) Open-flame burning or torching of lead-based paint is
7 prohibited;

8 (ii) Machine sanding or grinding or abrasive blasting or
9 sandblasting of lead-based paint is prohibited unless used with High
10 Efficiency Particulate Air (HEPA) exhaust control which removes
11 particles of 0.3 microns or larger from the air at 99.97% or greater
12 efficiency;

13 (iii) Dry scraping of lead-based paint is permitted only in
14 conjunction with heat guns or around electrical outlets or when
15 treating defective paint spots totaling no more than 2 square feet
16 in any one room, hallway, or stairwell or totaling no more than 20
17 square feet on exterior surfaces; and

18 (iv) Operating a heat gun on lead-based paint is permitted only
19 at temperatures below 1100 degrees Fahrenheit.

20 (g) If conducted, soil abatement shall be conducted in one of
21 the following ways:

22 (i) If the soil is removed:

23 (A) The soil shall be replaced by soil with a lead concentration
24 as close to local background as practicable, but no greater than 400
25 ppm; and

26 (B) The soil that is removed shall not be used as top soil at
27 another residential property or child-occupied facility; or

28 (ii) If soil is not removed, the soil shall be permanently
29 covered, as defined in R307-840-2.

30 (h) The following post-abatement clearance procedures shall
31 be performed only by a certified inspector or risk assessor:

32 (i) Following an abatement, a visual inspection shall be
33 performed to determine if deteriorated painted surfaces and/or visible
34 amounts of dust, debris, or residue are still present. If
35 deteriorated painted surfaces or visible amounts of dust, debris,
36 or residue are present, these conditions must be eliminated prior
37 to the continuation of the clearance procedures;

38 (ii) Following the visual inspection and any post-abatement
39 cleanup required by paragraph (5)(h)(i) of this section, clearance
40 sampling for lead in dust shall be conducted. Clearance sampling
41 may be conducted by employing single-surface sampling or composite
42 sampling techniques;

43 (iii) Dust samples for clearance purposes shall be taken using
44 documented methodologies that incorporate adequate quality control
45 procedures;

46 (iv) Dust samples for clearance purposes shall be taken a
47 minimum of 1 hour after completion of final post-abatement cleanup
48 activities;

49 (v) The following post-abatement clearance activities shall
50 be conducted as appropriate based upon the extent or manner of
51 abatement activities conducted in or to the residential dwelling or

1 child-occupied facility:

2 (A) After conducting an abatement with containment between
3 abated and unabated areas, one dust sample shall be taken from one
4 interior window sill and from one window trough (if present) and one
5 dust sample shall be taken from the floors of each of no less than
6 four rooms, hallways, or stairwells within the containment area.
7 In addition, one dust sample shall be taken from the floor outside
8 the containment area. If there are less than four rooms, hallways,
9 or stairwells within the containment area, then all rooms, hallways,
10 or stairwells shall be sampled;

11 (B) After conducting an abatement with no containment, two dust
12 samples shall be taken from each of no less than four rooms, hallways,
13 or stairwells in the residential dwelling or child-occupied facility.

14 One dust sample shall be taken from one interior window sill and
15 window trough (if present) and one dust sample shall be taken from
16 the floor of each room, hallway, or stairwell selected. If there
17 are less than four rooms, hallways, or stairwells within the
18 residential dwelling or child-occupied facility, then all rooms,
19 hallways, or stairwells shall be sampled; and

20 (C) Following an exterior paint abatement, a visible inspection
21 shall be conducted. All horizontal surfaces in the outdoor living
22 area closest to the abated surface shall be found to be cleaned of
23 visible dust and debris. In addition, a visual inspection shall be
24 conducted to determine the presence of paint chips on the dripline
25 or next to the foundation below any exterior surface abated. If paint
26 chips are present, they must be removed from the site and properly
27 disposed of, according to all applicable federal, state, and local
28 requirements;

29 (vi) The rooms, hallways, or stairwells selected for sampling
30 shall be selected according to documented methodologies;

31 (vii) The certified inspector or risk assessor shall compare
32 the residual lead level (as determined by the laboratory analysis)
33 from each single surface dust sample with clearance levels in paragraph
34 (5)(h)(viii) of this section for lead in dust on floors, interior
35 window sills, and window troughs or from each composite dust sample
36 with the applicable clearance levels for lead in dust on floors,
37 interior window sills, and window troughs divided by half the number
38 of subsamples in the composite sample. If the residual lead level
39 in a single surface dust sample equals or exceeds the applicable
40 clearance level or if the residual lead level in a composite dust
41 sample equals or exceeds the applicable clearance level divided by
42 half the number of subsamples in the composite sample, the components
43 represented by the failed sample shall be recleaned and retested;
44 and

45 (viii) The clearance levels for lead in dust are 40 ug/ft² for
46 floors, 250 ug/ft² for interior window sills, and 400 ug/ft² for window
47 troughs.

48 (i) In a multi-family dwelling with similarly constructed and
49 maintained residential dwellings, random sampling for the purposes
50 of clearance may be conducted provided:

51 (i) The certified individuals who abate or clean the residential

1 dwellings do not know which residential dwelling will be selected
2 for the random sample;

3 (ii) A sufficient number of residential dwellings are selected
4 for dust sampling to provide a 95% level of confidence that no more
5 than 5% or 50 of the residential dwellings (whichever is smaller)
6 in the randomly sampled population exceed the appropriate clearance
7 levels; and

8 (iii) The randomly selected residential dwellings shall be
9 sampled and evaluated for clearance according to the procedures found
10 in paragraph (5)(h) of this section.

11 (j) An abatement report shall be prepared by a certified
12 supervisor or project designer no later than 30 business days after
13 receiving the results of final clearance testing and all soil analyses
14 (if applicable). The abatement report shall include the following
15 information:

16 (i) Start and completion dates of abatement;

17 (ii) The name and address of each certified firm conducting
18 the abatement and the name of each supervisor assigned to the abatement
19 project;

20 (iii) The occupant protection plan prepared pursuant to
21 paragraph (5)(e) of this section;

22 (iv) The name, address, and signature of each certified risk
23 assessor or inspector conducting clearance sampling and the date of
24 clearance testing;

25 (v) The results of clearance testing and all soil analyses (if
26 applicable) and the name of each recognized laboratory that conducted
27 the analyses; and

28 (vi) A detailed written description of the abatement, including
29 abatement methods used, locations of rooms and/or components where
30 abatement occurred, reason for selecting particular abatement methods
31 for each component, and any suggested monitoring of encapsulants or
32 enclosures.

33 (6) Collection and laboratory analysis of samples. Any paint
34 chip, dust, or soil samples collected pursuant to the work practice
35 standards contained in this section shall be:

36 (a) Collected by persons certified by the director as an
37 inspector or risk assessor; and

38 (b) Analyzed by a laboratory recognized by EPA pursuant to
39 Section 405(b) of TSCA as being capable of performing analyses for
40 lead compounds in paint chip, dust, and soil samples.

41 (7) Composite dust sampling. Composite dust sampling may only
42 be conducted in the situations specified in paragraphs (3) through
43 (5) of this section. If such sampling is conducted, the following
44 conditions shall apply:

45 (a) Composite dust samples shall consist of at least two
46 subsamples;

47 (b) Every component that is being tested shall be included in
48 the sampling; and

49 (c) Composite dust samples shall not consist of subsamples from
50 more than one type of component.

51 (8) Determinations.

1 (a) Lead-based paint is present:

2 (i) On any surface that is tested and found to contain lead
3 equal to or in excess of 1.0 milligrams per square centimeter or equal
4 to or in excess of 0.5% by weight; and

5 (ii) On any surface like a surface tested in the same room
6 equivalent that has a similar painting history and that is found to
7 be lead-based paint.

8 (b) A paint-lead hazard is present:

9 (i) On any friction surface that is subject to abrasion and
10 where the lead dust levels on the nearest horizontal surface underneath
11 the friction surface (e.g., the window sill or floor) are equal to
12 or greater than the dust hazard levels identified in the definition
13 of "Dust-lead hazard" in R307-840-2;

14 (ii) On any chewable lead-based paint surface on which there
15 is evidence of teeth marks;

16 (iii) Where there is any damaged or otherwise deteriorated
17 lead-based paint on an impact surface that is caused by impact from
18 a related building component (such as a door knob that knocks into
19 a wall or a door that knocks against its door frame); and

20 (iv) If there is any other deteriorated lead-based paint in
21 any residential building or child-occupied facility or on the exterior
22 of any residential building or child-occupied facility.

23 (c) A dust-lead hazard is present in a residential dwelling
24 or child-occupied facility:

25 (i) In a residential dwelling on floors and interior window
26 sills when the weighted arithmetic mean lead loading for all single
27 surface or composite samples of floors and interior window sills are
28 equal to or greater than 40 ug/ft² for floors and 250 ug/ft² for interior
29 window sills, respectively;

30 (ii) On floors or interior window sills in an unsampled
31 residential dwelling in a multi-family dwelling, if a dust-lead hazard
32 is present on floors or interior window sills, respectively, in at
33 least one sampled residential unit on the property; and

34 (iii) On floors or interior window sills in an unsampled common
35 area in a multi-family dwelling, if a dust-lead hazard is present
36 on floors or interior window sills, respectively, in at least one
37 sampled common area in the same common area group on the property.

38 (d) A soil-lead hazard is present:

39 (i) In a play area when the soil-lead concentration from a
40 composite play area sample of bare soil is equal to or greater than
41 400 parts per million; or

42 (ii) In the rest of the yard when the arithmetic mean lead
43 concentration from a composite sample (or arithmetic mean of composite
44 samples) of bare soil from the rest of the yard (i.e., non-play areas)
45 for each residential building on a property is equal to or greater
46 than 1,200 parts per million.

47 (9) Recordkeeping. All reports or plans required in this
48 section shall be maintained by the certified firm or individual who
49 prepared the report for no fewer than 3 years. The certified firm
50 or individual also shall provide copies of these reports to the
51 building owner who contracted for its services.

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R307-842-4. Lead-Based Paint Activities Requirements.

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R307-842-5. Work Practice Requirements for Lead-Based Paint Hazards.

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Applicable certification, occupant protection, and clearance requirements and work practice standards are found in R307-842 and in regulations issued by HUD at 24 CFR Part 35, Subpart R. The work practice standards in those regulations do not apply when treating paint-lead hazards of less than:

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(a) Two square feet of deteriorated lead-based paint per room or equivalent,

(b) Twenty square feet of deteriorated paint on the exterior building, or

(c) Ten percent of the total surface area of deteriorated paint on an interior or exterior type of component with a small surface area.

24

KEY: paint, lead-based paint, lead-based paint abatement

25

Date of Enactment or Last Substantive Amendment: May 3, 2012

26

Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(i)

FIVE-YEAR NOTICE OF REVIEW AND STATEMENT OF CONTINUATION

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 155912
Utah Admin. Code ref. (R no.): R307-842

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Air Quality
Room no.: Fourth Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3085
Mailing address 1: PO BOX 144820
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4820

Contact person(s):

Name: Phone: Fax: E-mail: Remove:
Mark Berger 801-536-4000 801-536-0085 mberger@utah.gov

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Lead-Based Paint Activities

Rule Provisions

3. A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize or require the rule:
R307-842 is one of three Air Quality rules that implements Subsection 19-2-104(1)(i) which authorizes the Air Quality Board to make rules to implement the lead-based paint requirements for training, certification, and performance of 15 U.S.C.A 2601 et seq., Toxic Substances Control Act, Subchapter IV--Lead Exposure Reduction, Sections 402 and 406.

Content Summary

4. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule:
R307-342 was newly promulgated on April 4, 2010. Since that date, the rule has amended twice with with nonsubstantive changes. Since the rule's promulgation in 2010, there have been no comments submitted either supporting or opposing the rule.

Justification Information

5. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any:
R307-842 contains necessary requirements for Utah to have lead-based paint program regulatory oversight in Utah for renovation projects conducted in target housing and child-occupied facilities. Without R307-842, Utah would not have authority to implement the federal requirements and implementation would be carried out by the Environmental

Protection Agency. Therefore, this rule should be continued.

Indexing Information

6. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
paint, lead-based paint abatement, lead-based paint

File Information

7. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Section 63G-3-305. Incomplete forms will be returned to the agency for completion, possibly delaying the effective date.

Agency Authorization

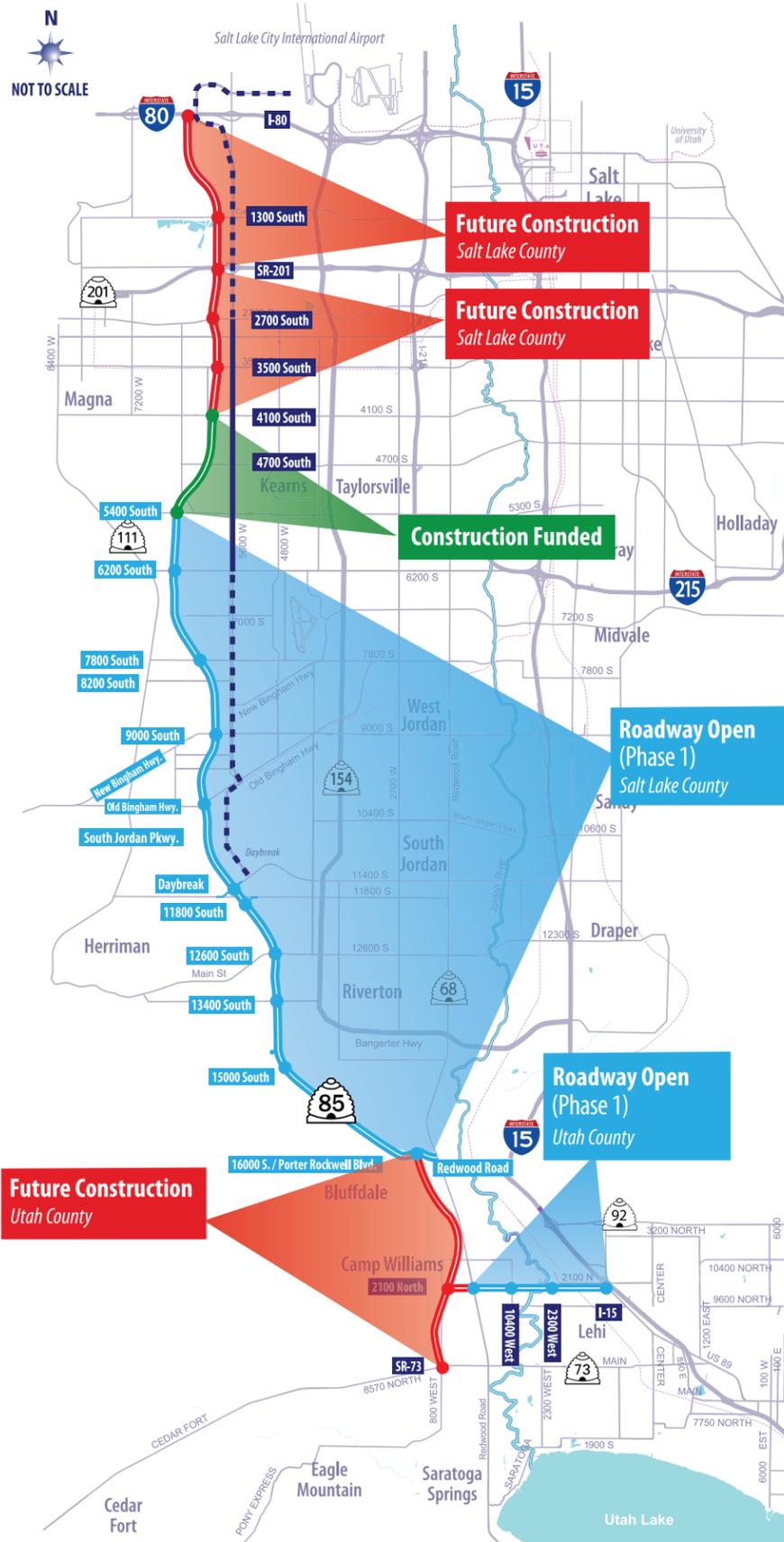
Agency head or designee, and title: Bryce Bird
Director

Date (mm/dd/yyyy): 01/14/2015

ITEM 6

Mountain View
Corridor Air
Working Group
Update

PHASED CONSTRUCTION APPROACH.....



- Current Intersection/Future Interchange
- Future Intersection/Future Interchange
- Construction Funded from 5400 S. to 4100 S.
- Initial Transit Project
- - - Future Transit Projects

PHASE 1

UDOT constructed two lanes in each direction, and the on-and-off ramps of the future freeway from 16000 South to 5400 South. Trail and bike lanes run adjacent to the entire corridor. Future construction will extend the roadway from 5400 South to S.R. 201.



PHASE 2

UDOT will convert the existing signalized intersections to freeway interchanges.

PHASE 3

UDOT will add additional lanes in each direction.



MVC AIR QUALITY WORKING GROUP UPDATE
JANUARY 2015

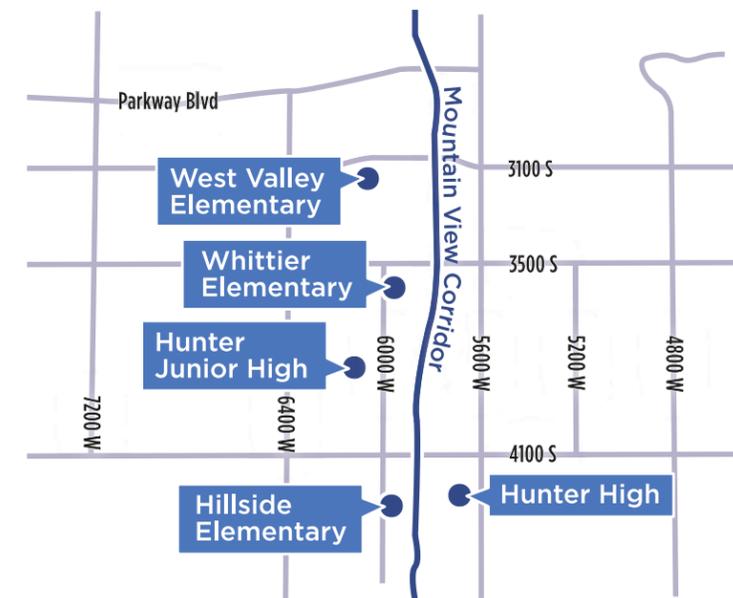


The Utah Department of Transportation (UDOT) is constructing the Mountain View Corridor (MVC), a planned freeway from Interstate 80 in Salt Lake County to state Route 73 in Lehi.

During the MVC Draft Environmental Impact Statement (EIS) public comment period, UDOT received comments from residents with concerns about the air quality near public schools surrounding the corridor. In an effort to be responsive to the comments, the Record of Decision (ROD) described the creation of the MVC Air Working Group (AWG) to monitor the air quality effects of the new roadway and to address potential impacts resulting from the construction of the roadway near five schools in the Granite School District (GSD).

The decision to incorporate the comments as mitigation commitments does not represent a determination by the Federal Highway Administration (FHWA) or UDOT that the MVC project or any other road will cause measurable adverse health effects on population near roads.

The first step of the group was to measure the background pollutant levels and monitor Mobile Source Air Toxics (MSATs), and other relevant pollutants for future comparison, plus evaluate existing ventilation systems in the schools and recommend a mitigation strategy. \$1 million for monitoring and \$3.1 million for mitigation was allocated.



Schools near the future Mountain View Corridor.

AIR QUALITY MONITORING

The purpose of the air quality monitoring is to characterize air quality prior to any construction in order to provide a baseline for comparison with future monitoring to be done during and after construction.

The project has four major objectives:

- Monitor background air quality focusing on MSATs and particulate matter less than 10 micrometers (PM₁₀)
- Monitor wind speed and direction at the five schools
- Design a mitigation approach to reduce MSATs particles indoors
- Recommend future monitoring and mitigation efforts

Evaluation of air quality and its potential health risks were performed using the data collected at Hunter High School from August 2011 to July 2012. Conclusions from the background-monitoring project include:



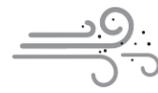
Diesel particulate matter (DPM) is the most critical MSAT to monitor since it is the greatest contributor to cancer risk.



Black carbon concentrations, a component of DPM, are higher during the morning and evening commute.



Measured toxic concentrations are comparable to the measurements at the Bountiful, Utah, Division of Air Quality (DAQ) monitoring station* and to observed and modeled urban concentrations nationally.



Expected pollutant concentrations may be higher when winds are more parallel to the roadway.



Ultra-fine particle (UFP) data was collected for comparison with future data collected next to MVC. According to the data, UFP concentrations were about one-half of the UFP concentrations next to US Route 95 in Las Vegas.

**Already existing DAQ monitoring station*

***US Route 95 in Las Vegas has a similar air quality monitoring project*



Meteorological monitor at Hillside elementary school.



Air-quality monitor at Hunter High School.

MITIGATION RECOMMENDATIONS/EFFORTS

The recommended mitigation strategy is to replace current filters in the schools with filters that are more efficient at removing pollutants and perform upgrades needed to handle the improved filters.

ESTIMATED COST TABLE

School	HVAC System Upgrades	Ongoing Operation and Maintenance (30 yrs)	Total Cost of Upgrades and Ongoing O&M
Whittier	\$26,973	\$136,881	\$163,854
Hillside	\$14,853	\$77,806	\$92,659
West Valley	\$53,020	\$119,350	\$172,370
Hunter Jr. High	\$91,754	\$139,411	\$231,165
Hunter High	\$243,216	\$716,233	\$959,449
Total	\$429,816	\$1,189,681	\$1,619,497

Note: \$3.1 million was allocated to the AWG for mitigation costs.

In addition to improved filtration systems in the schools, a number of other recommended mitigation efforts could reduce pollutant concentrations and/or student exposure at schools:

- Install sound walls or vegetated barriers between the schools and MVC
- Eliminate bus idling at schools
- Retrofit existing buses to reduce emissions
- Avoid outdoor activities during morning rush hour
- Minimize outdoor activities during periods with strong inversions
- Install portable classrooms as far away as possible
- Provide training for teachers whose classrooms have characteristics that could defeat the filtration system (windows that open; doors that open to the outside rather than to an interior hallway, etc.)
- Control HVAC systems to minimize filling classrooms with morning rush-hour pollutants
- Eliminate or minimize emissions from indoor sources (cleaning materials, markers, etc.)

Future monitoring near the MVC should determine both outdoor (ambient) and indoor, in-classroom impacts of pollutants from the completed roadway. In addition, some monitoring would be beneficial during construction.

THE AWG CONSISTS OF MEMBERS OF

Utah Department of Transportation (UDOT)
Utah Division of Air Quality (DAQ)
Utah Transit Authority (UTA)
University of Utah Department of Pediatrics
West Valley City (WVC)
Granite School District

Breathe Utah
Parent Teacher Association (PTA)
Sierra Club
Utah Congress of Parents and teachers
Utahns for Better Transportation
Wasatch Clean Air Coalition

The AWG contracted with Sonoma Technology, Inc. (STI) and Environmental Health & Engineering (EH&E) to conduct an air quality monitoring study to evaluate background pollution concentrations prior to construction, and to develop future monitoring and mitigation strategies for the impacted schools.

For more details on the report, visit udot.utah.gov/go/MountainViewAirQuality.

Near-Road Air Quality and Mitigation in Schools Near the Mountain View Corridor (MVC)

Paul T. Roberts and David L. Vaughn
Sonoma Technology, Inc.
Petaluma, California

Jerry Ludwig
Environmental Health and Engineering
Needham, Massachusetts

Cameron Cova
Breathe Utah
For the MVC Air Working Group

Presented to the Utah Air Quality Board
Salt Lake City, Utah
February 4, 2015



Sonoma Technology, Inc.
Environmental Science and Innovative Solutions

Overview of Today's Presentation

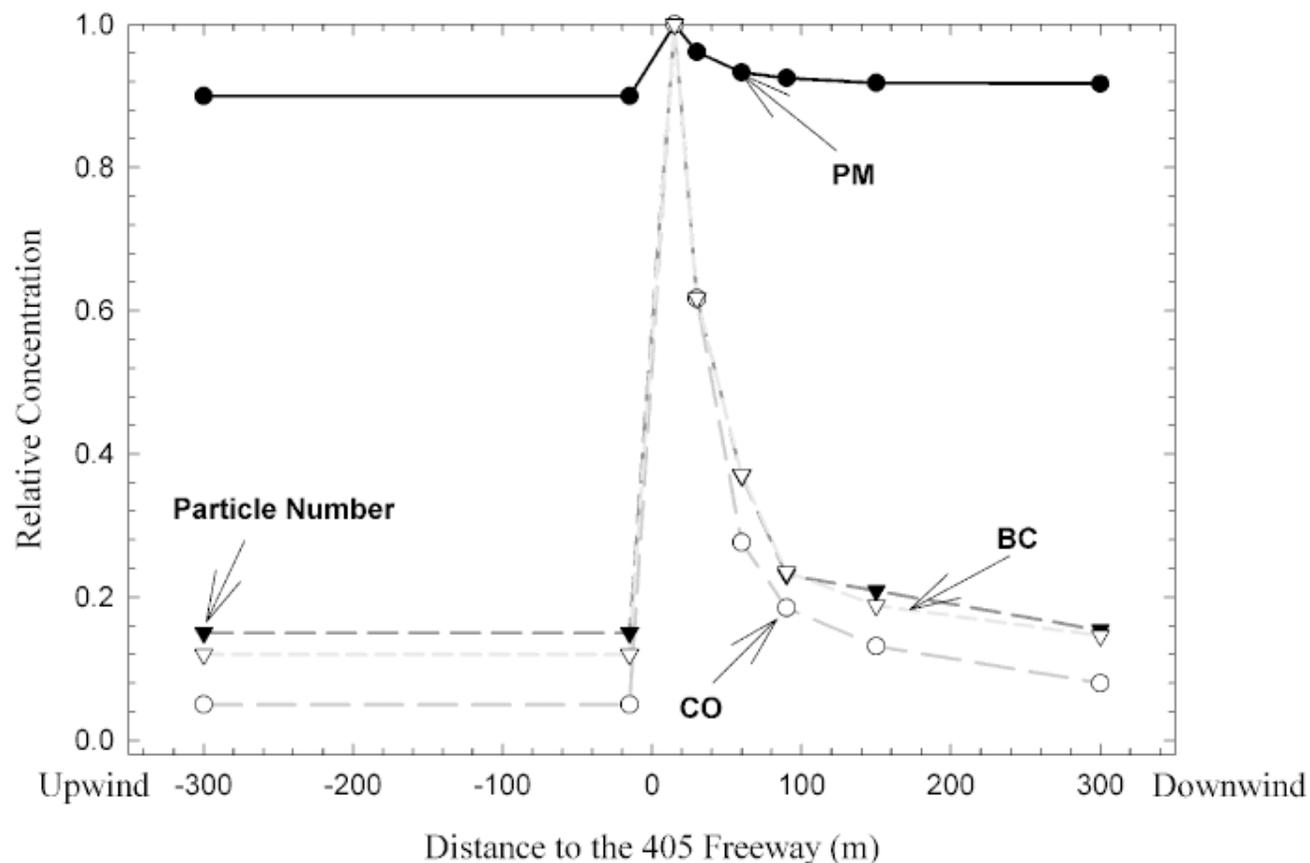
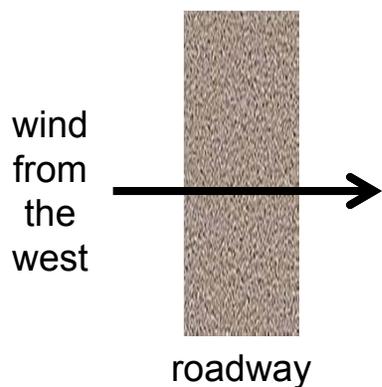
- Background: Why is near-road pollution of concern?
- Background on the Mountain View Corridor (MVC) Air Working Group (AWG).
- Summary of pre-construction outdoor air quality at Hunter High School.
- Current filtration systems' capability to remove diesel particulate matter (DPM).
- Mitigation recommendations for schools.
- Wood smoke in West Valley City

Project Motivation: Near-Road Pollution and Health Effects

- Pollutant concentrations are higher near busy roadways.
- Rob McConnell (USC, Children's Health Study) recently reframed the air pollution problem in general by saying [paraphrasing] **“We’ve been looking at the wrong pollutant mixture; it’s not regional air pollution, but near-road pollution, that is the key to understanding the effect of pollution on public health.”**



Challenge: Gradients Near Roadways



Zhu et al. (2002) Study of ultrafine particles near a major highway with heavy-duty diesel traffic. *Atmos. Environ.*, 36(27), 4323-4335, September.

HEI Panel on the Health Effects of Traffic-Related Air Pollution

- There is sufficient evidence to infer a causal relationship between exposure to traffic-related air pollution and exacerbation of asthma symptoms.
- Additionally, there is suggestive evidence of a causal link between near-roadway air pollution and
 - the onset of childhood asthma,
 - all-cause mortality,
 - cardiovascular mortality and morbidity,
 - other respiratory problems, and
 - impaired lung function,

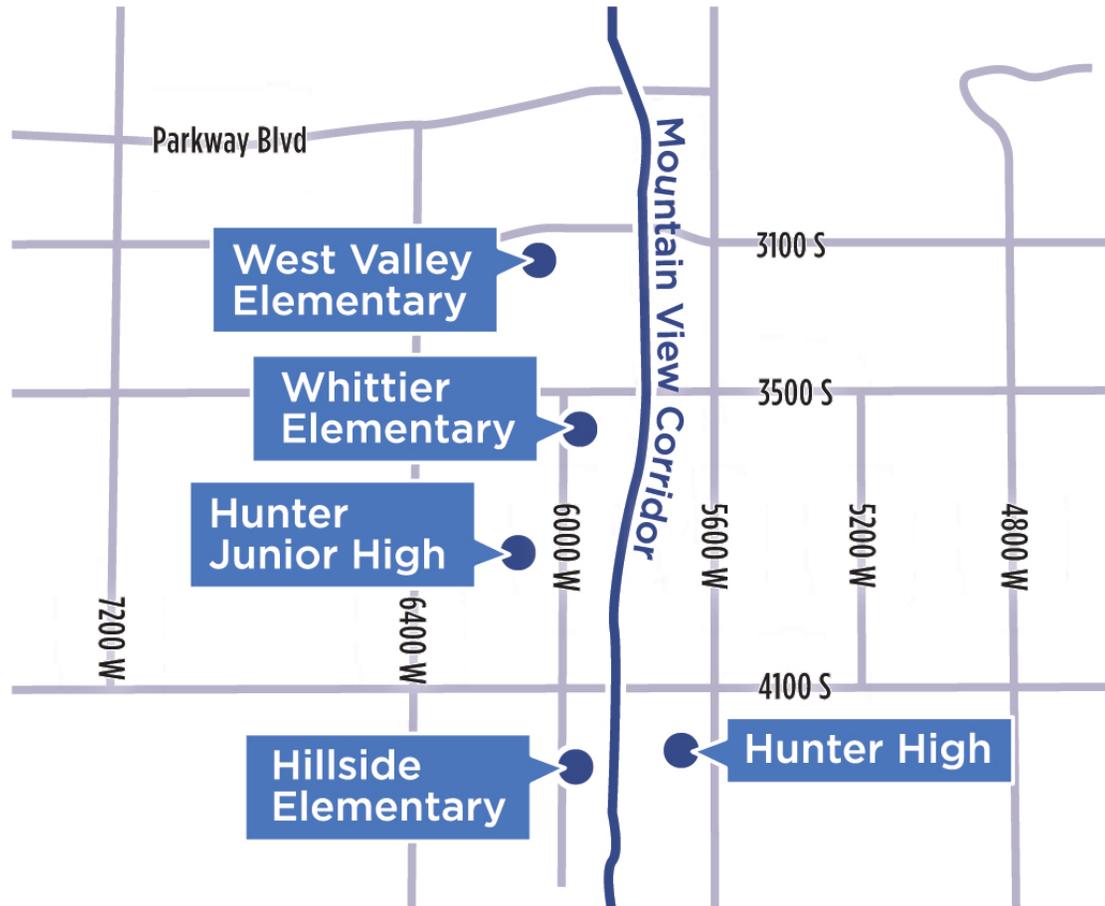
but more research is needed to confirm that traffic-related air pollution is the cause of these health problems.



Background on the MVC and Near-Road Air Quality

- Plans developed for transportation alternatives for a new roadway and transit-way in west Salt Lake County and northwest Utah County (2003-2007)
- Concern that children would be adversely affected by air pollution from a new major roadway (MVC) near their schools
- Concerned groups included
 - Utahns for Better Transportation
 - Utah Moms for Clean Air
 - Physicians for a Healthy Environment
 - Sierra Club

The 5 Schools of Concern and the Future Route of the Mountain View Corridor



The MVC Air Working Group (AWG)

- In Final EIS, UDOT adopted mitigation measures to address near-road air quality impacts
- In the Record of Decision (2008), UDOT and UTA established the AWG and provided \$4.1M for monitoring air quality and for mitigation (installing air filters and ongoing maintenance) at 5 schools
- AWG makeup
 - Four members appointed by citizen advisory groups
 - Four members from UDOT, UTA, Utah Division of Air Quality, local government (West Valley City)
 - Include expertise in air quality modeling and medicine

AWG: Working Together Since 2009

- Familiar with transportation and air quality issues
- Educated itself on near-road air quality issues
- Hired a consultant team to perform air quality monitoring and to design mitigation approaches for the 5 schools

The rest of this presentation is a summary of the air quality monitoring results and of the AWG recommendations for mitigation in the schools

Background Air Quality (Pre-Construction)

- Diesel particulate matter (DPM) is likely of most concern near busy roadway.
- We measured black carbon (BC) as a surrogate for DPM.
- Topics for discussion:
 - Measured parameters
 - Wind direction and roadway orientation
 - Annual concentrations
 - Typical diurnal patterns



Parameters Measured at Hunter HS West Valley City 8/1/2011-8/1/2012

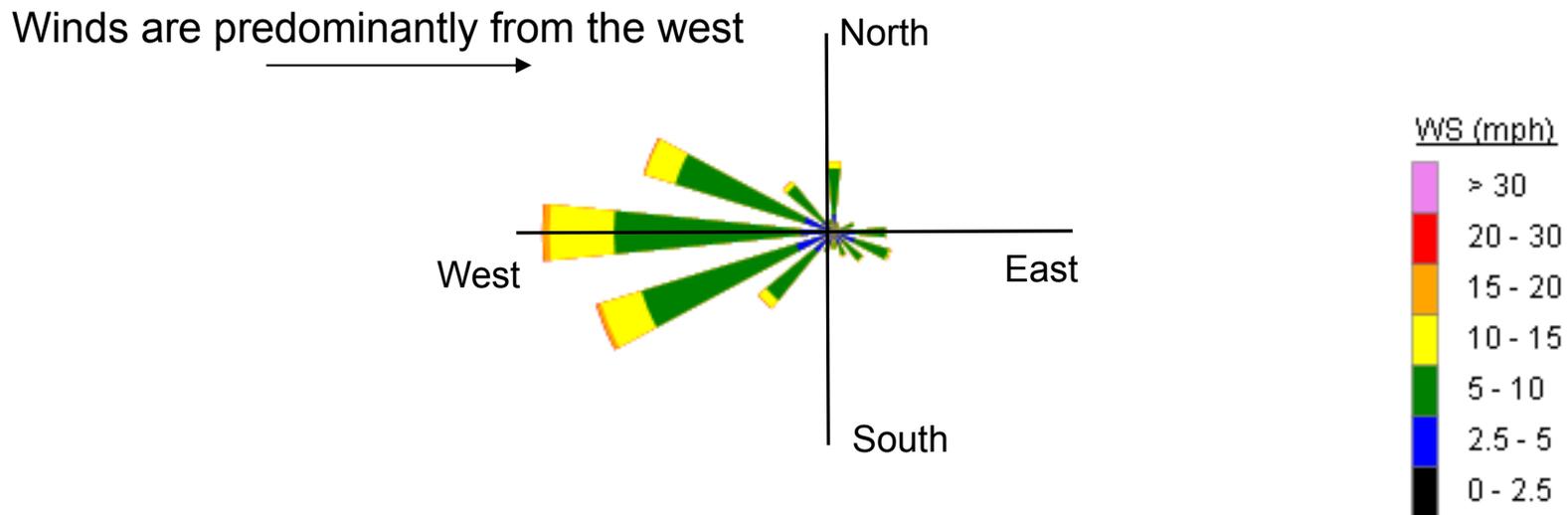
Variables Measured	Use of Data	Monitor/Sample Type	Frequency
Winds at 2-3 schools; other parameters at Hunter HS	Determine winds and atmospheric mixing	Meteorology (WS, WD, temp, RH, pressure, solar radiation)	1-minute
Black carbon/"blue" carbon	Represent DPM and woodsmoke	Aethalometer (dual wavelength) Magee AE-33	5-minute
PM ₁₀	Determine PM concentrations, for filter loading and during construction	Beta Attenuation Monitor (BAM 1020)	Hourly
pPAH	Represent DPM	PAS 2000	5-minute
Benzene, 1-3 butadiene, acrolein	Annual average concentrations	Canister sampling	24-hr samples every 12 days
Formaldehyde, acetaldehyde	Annual average concentrations	Cartridge sampling	24-hr samples every 12 days
Ultra-fine particles (number concentration)	A near-road potential risk factor	Teledyne-API 651 (borrowed)	5-minute

pPAH = particulate polycyclic aromatic hydrocarbon

Wind Rose Interpretation

How to Interpret a Wind Rose

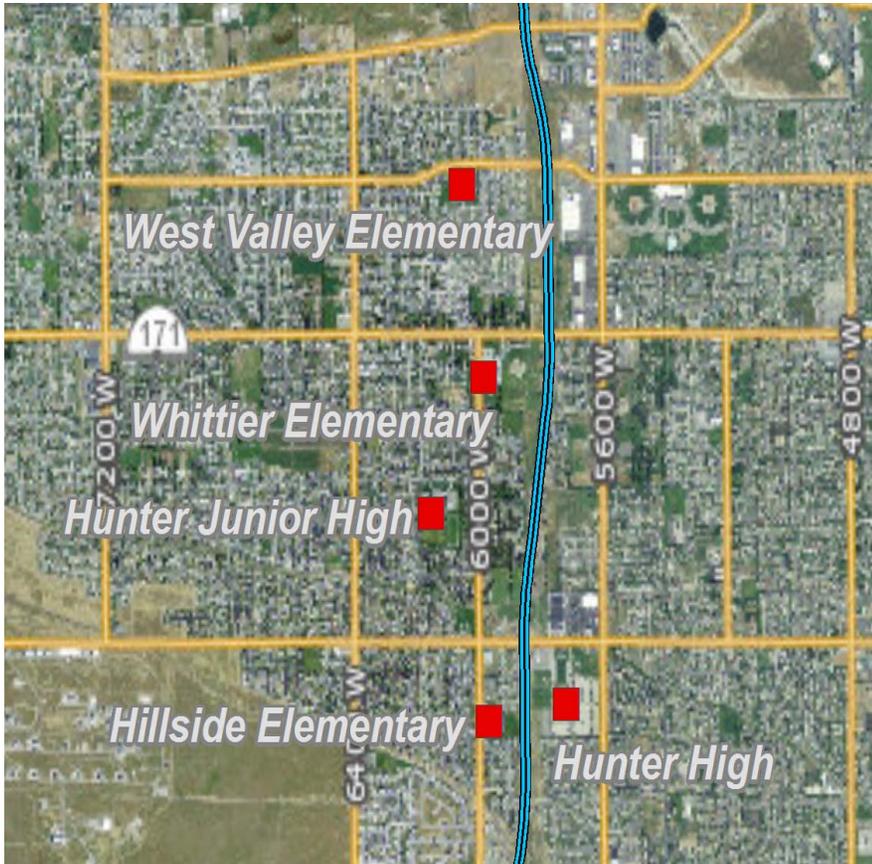
A wind rose provides a summary of wind patterns for a specific time period at a surface meteorological site. The size of the triangle emanating from the center of the wind rose indicates the percentage of time that winds are from a specific direction (position on axes). Wind speed time percentages are indicated with color bins along the length of the triangle.



Wind Comparison Map (very similar for all seasons)

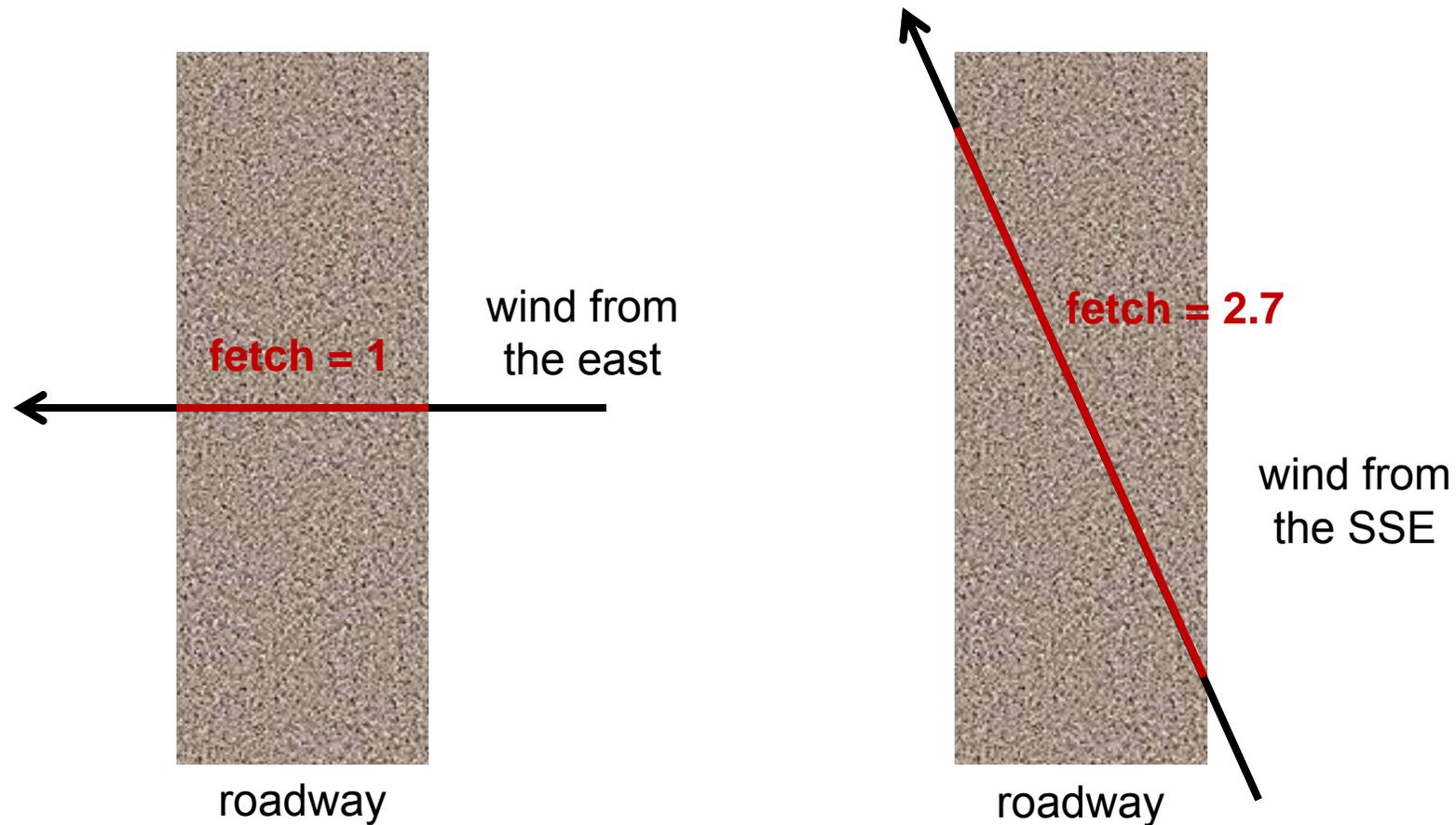


Issues Relative to Wind Direction and Roadway Orientation



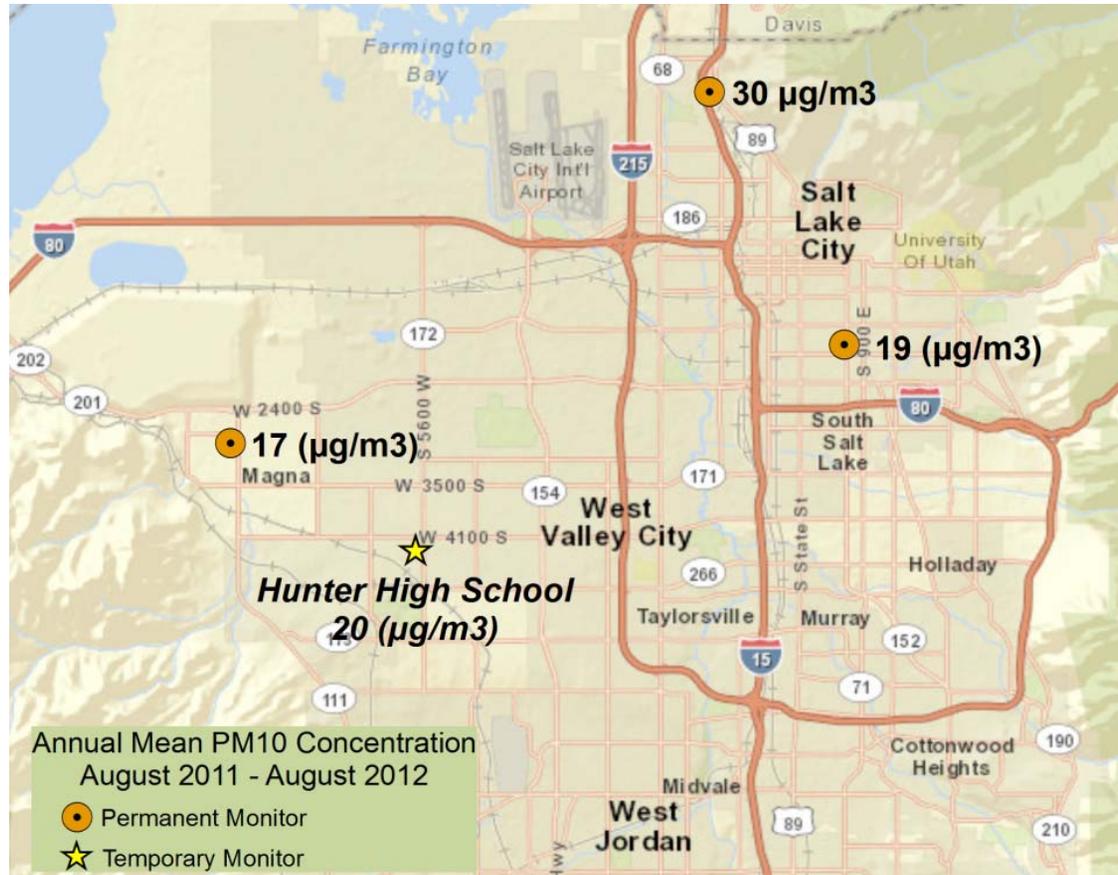
- Dominant winds from the south; thus winds almost parallel to roadway
- Winds meander at low wind speeds
- Pollutant concentrations decrease and spread downwind
- Pollutant concentrations higher at lower wind speeds
- Pollutant concentrations higher when winds more parallel to roadway

Influence of Wind Direction



Pollutant concentrations will be almost 3 times higher when winds are from the SSE, relative to winds from the east.

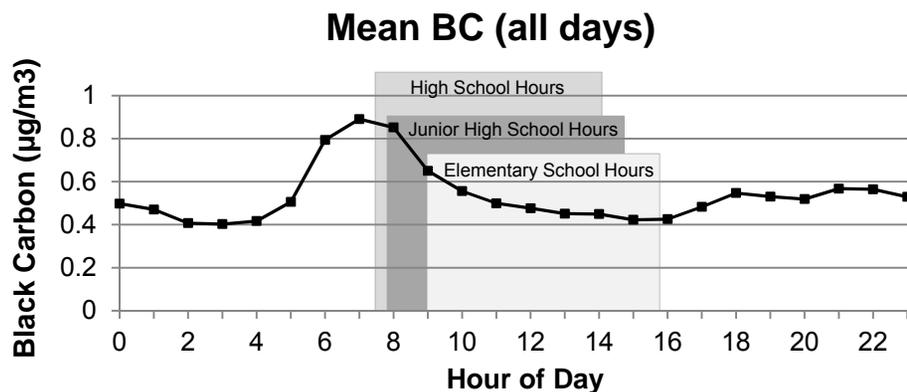
Background Air Quality: PM₁₀



PM₁₀ annual average at Hunter HS similar to data at nearby sites.

Comparison of BC Concentrations

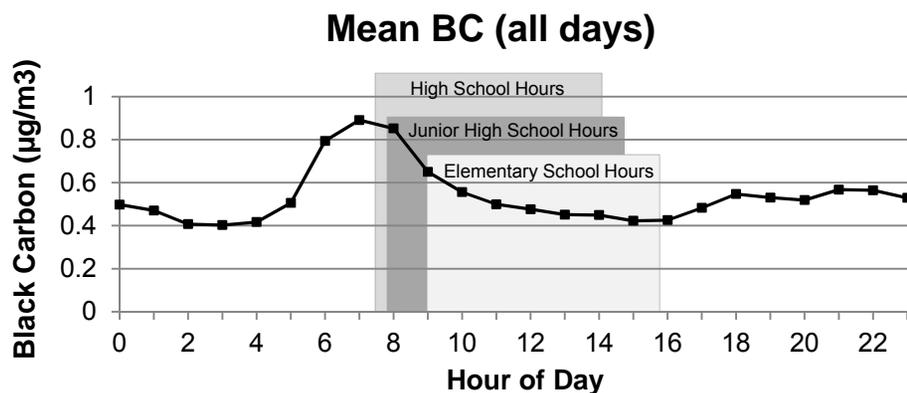
Black carbon concentrations are highest during the morning rush hour.



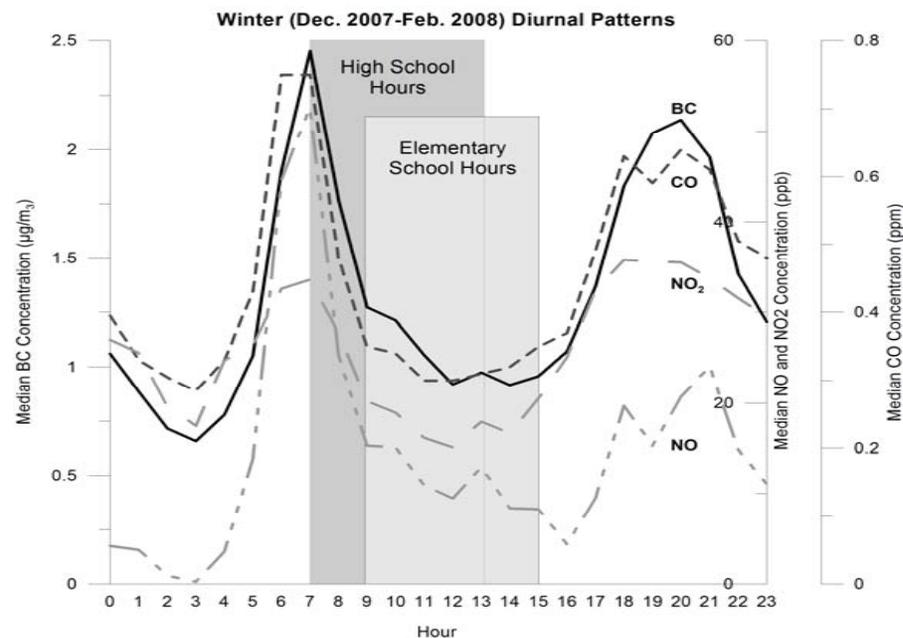
Hunter High School: all data 8/2/2011-8/1/2012

Comparison of BC Concentrations

Black carbon concentrations are highest during the morning rush hour.



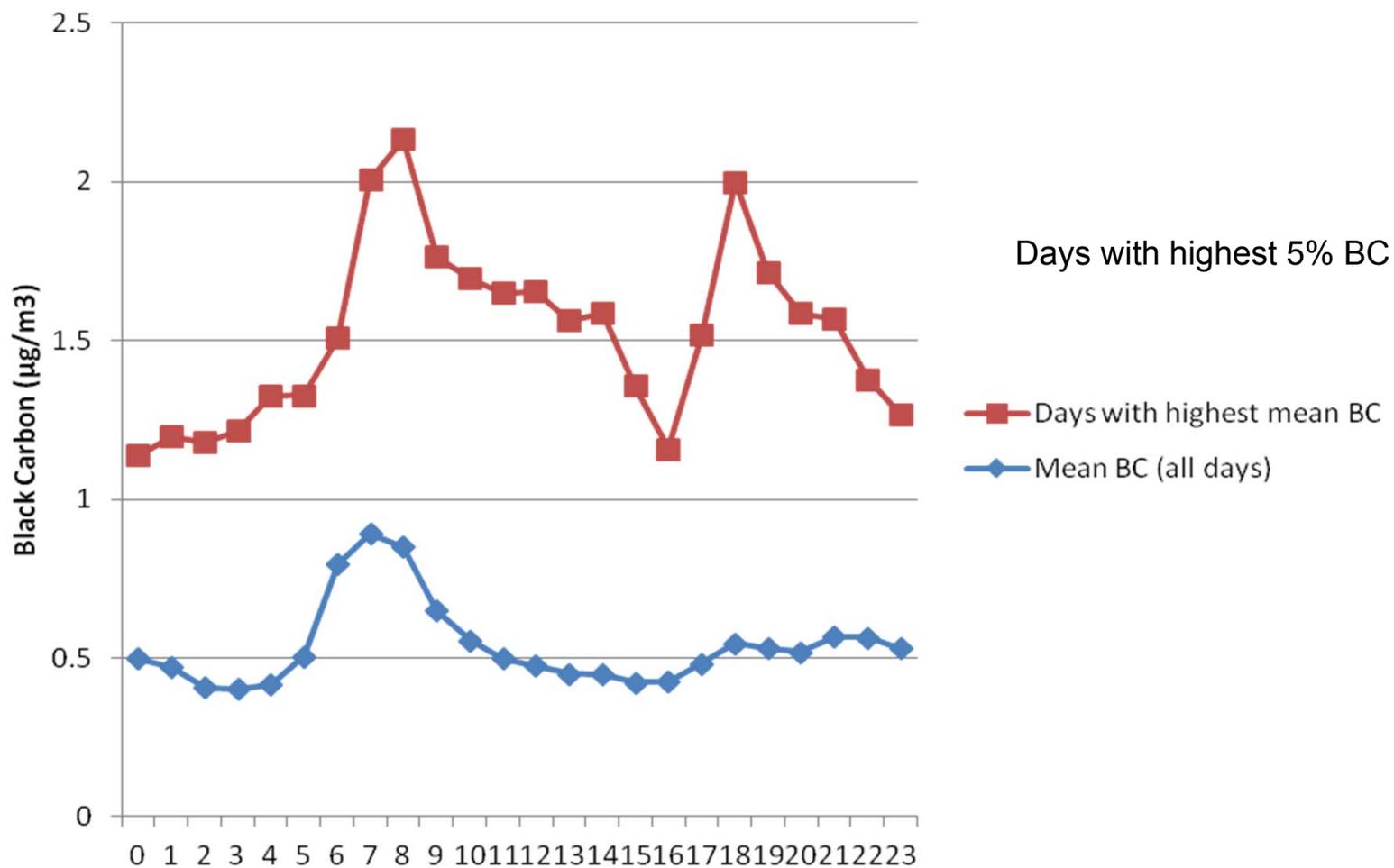
Hunter High School: all data 8/2/2011-8/1/2012



Fyfe School, Las Vegas, NV: Dec 2007-Feb 2008

BC concentrations at Hunter High School (pre-roadway) are $\frac{1}{3}$ to $\frac{1}{2}$ of BC concentrations next to US 95 in Las Vegas, NV.

BC Episode Days



All data 8/2/2011-8/1/2012

Background Air Quality

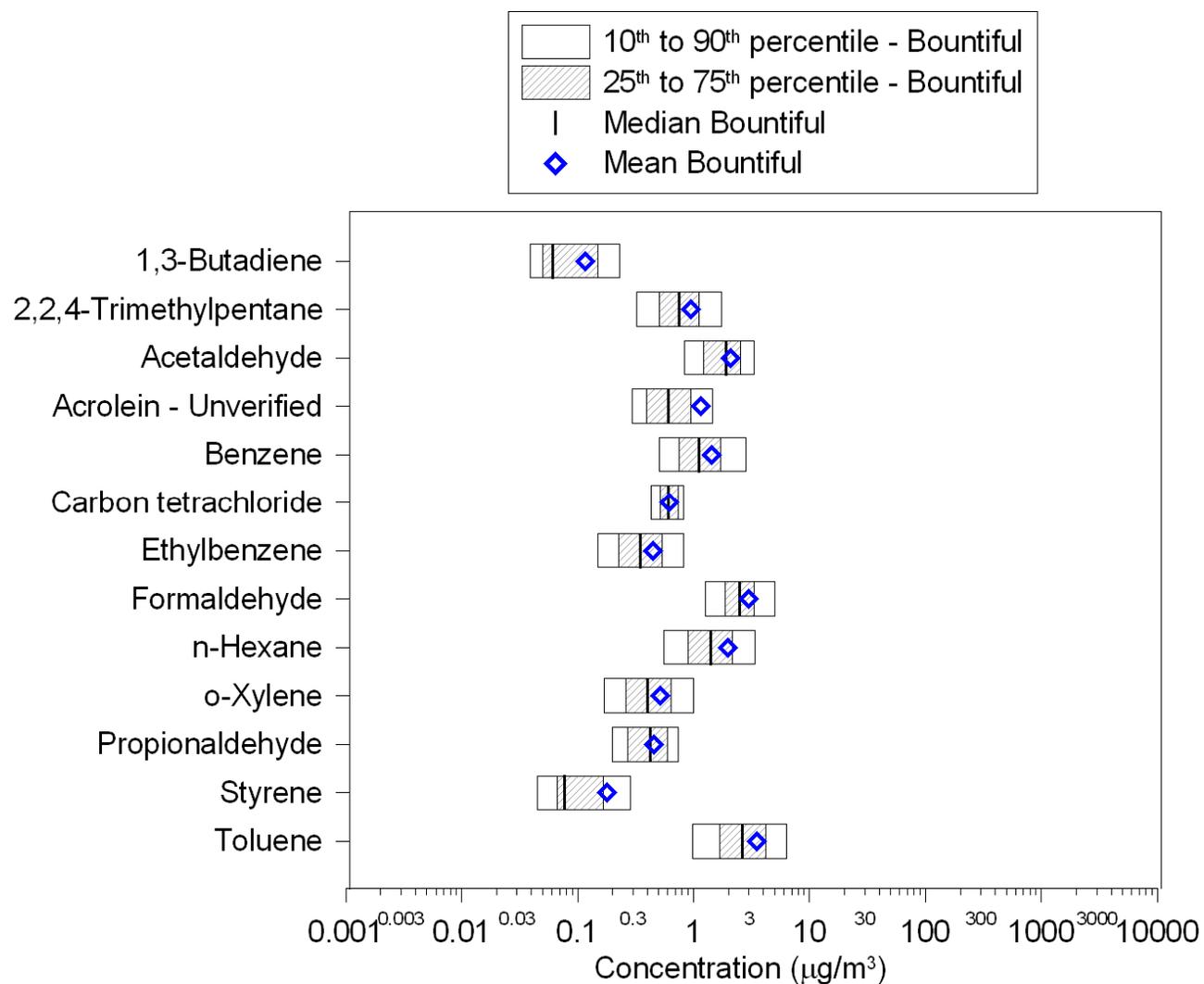
- Volatile organic compounds and carbonyls
 - Annual average characteristics
 - Comparisons with other Salt Lake City measurements
 - Comparisons with cancer and non-cancer benchmarks

VOCs and Carbonyls

- Begin with a graphic showing three years (2008-2010) of National Air Toxics and Trends Station (NATTS) from Bountiful, UT
- Add EPA OAQPS non-cancer reference concentration benchmarks
 - Exposure to concentrations at this level for 70 years would be expected to result in one additional non-cancer effect per million people, such as asthma, neurological effects, or reproductive effects. Concentrations below this level would result in a lower rate and concentrations above this level would result in a higher rate.
- Add EPA OAQPS 1-in-a-million cancer benchmarks
 - Concentrations at this level for 70 years would be expected to result in one additional case of cancer per million people. Concentrations below this level would result in a lower rate and concentrations above this level would result in a higher rate.
- Add Hunter High School data and compare

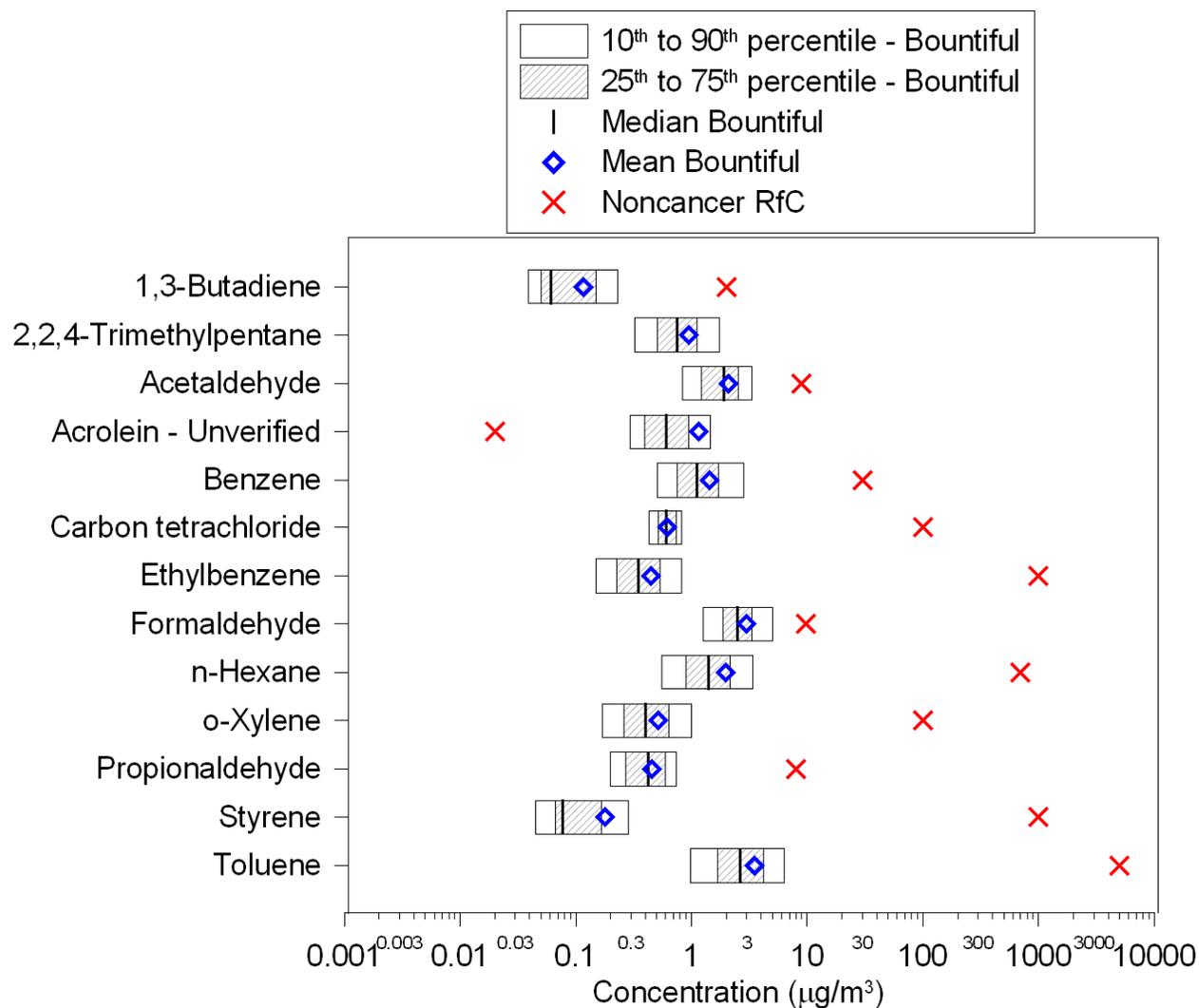
NATTS, Bountiful, UT

2008-2010



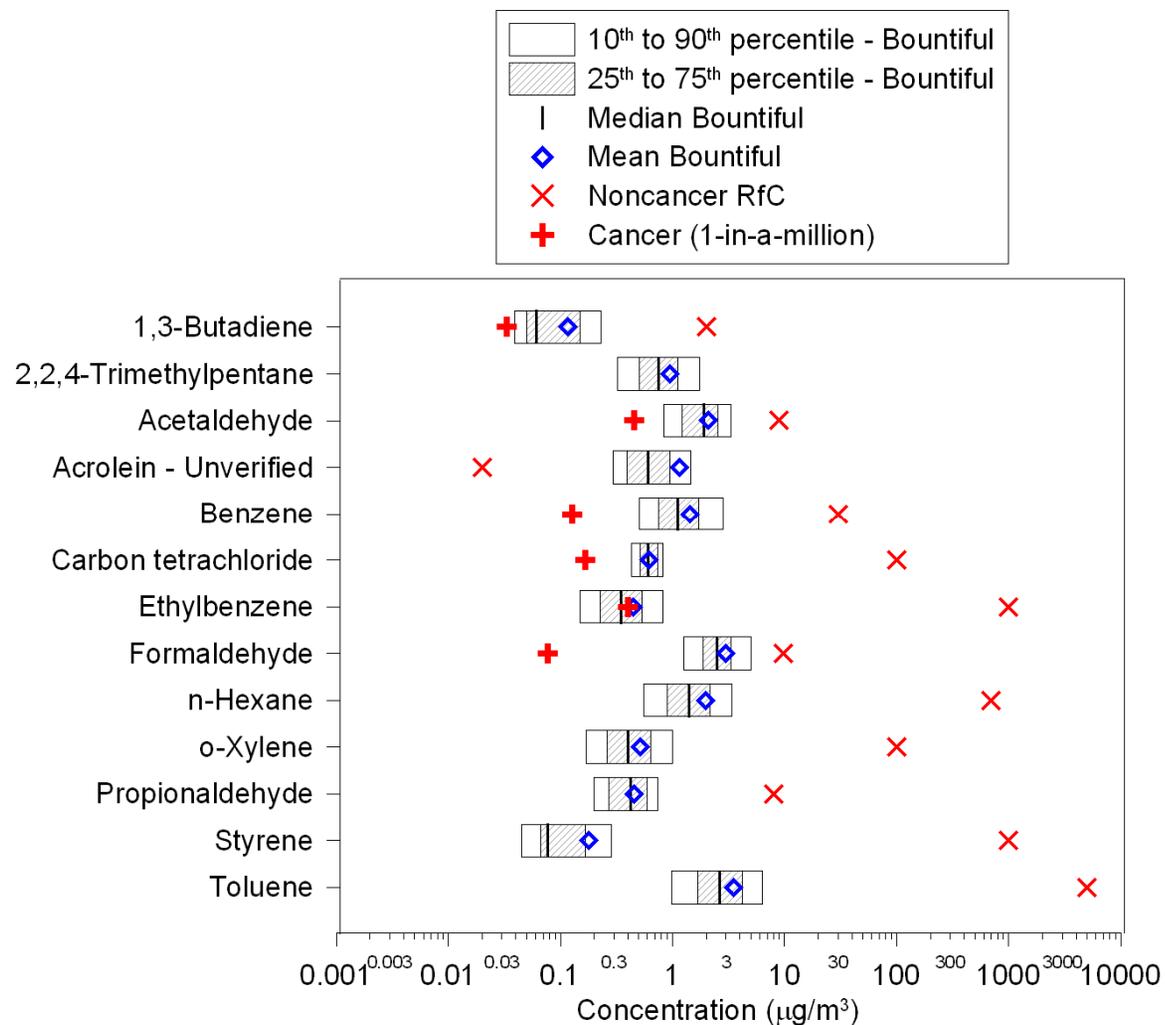
NATTS, Bountiful, UT

Showing EPA OAQPS non-cancer reference concentration benchmarks



NATTS, Bountiful, UT

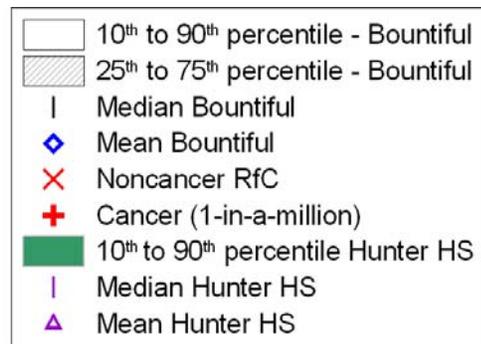
Showing EPA OAQPS cancer 1-in-a-million benchmarks



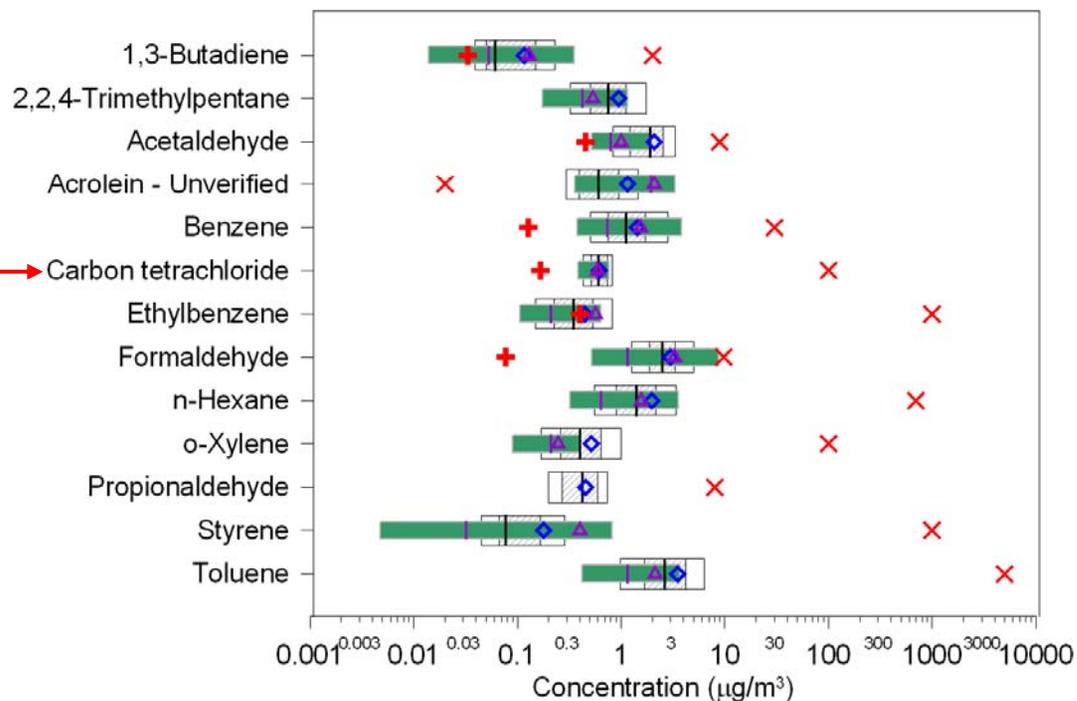
NATTS, Bountiful, UT

with Hunter High School Data

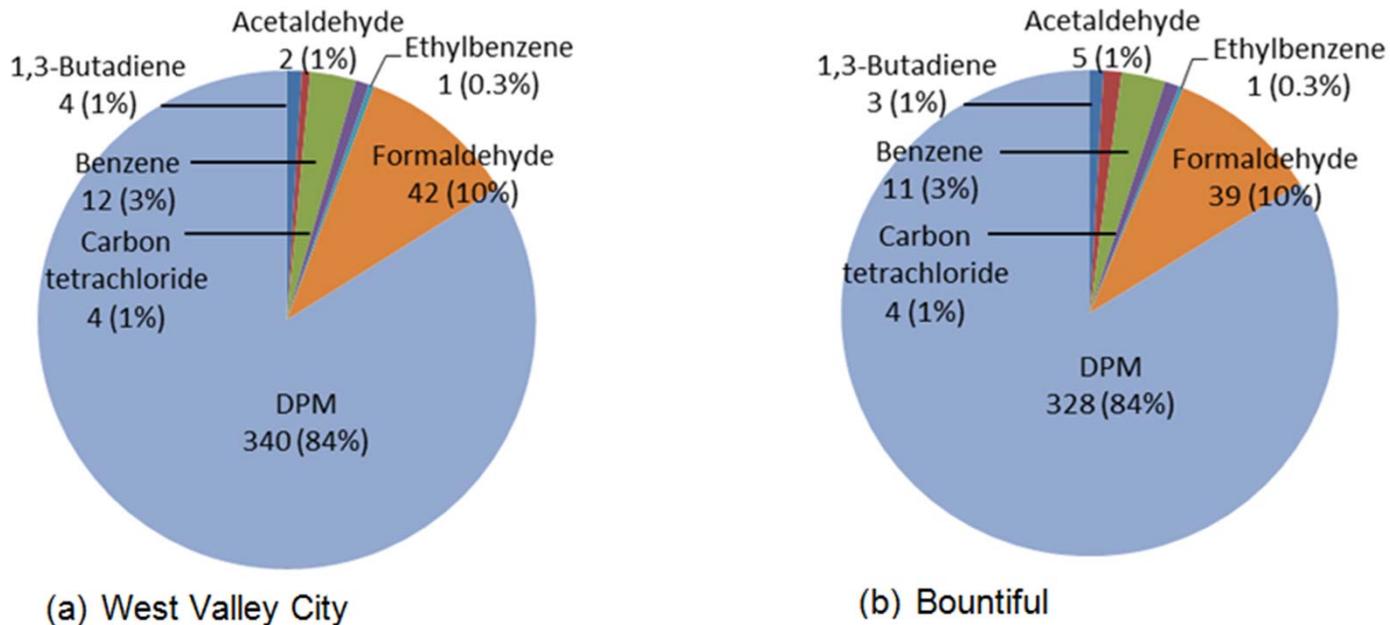
Hunter and Bountiful distributions are very similar, especially relative to benchmarks.



QC check:
the same?



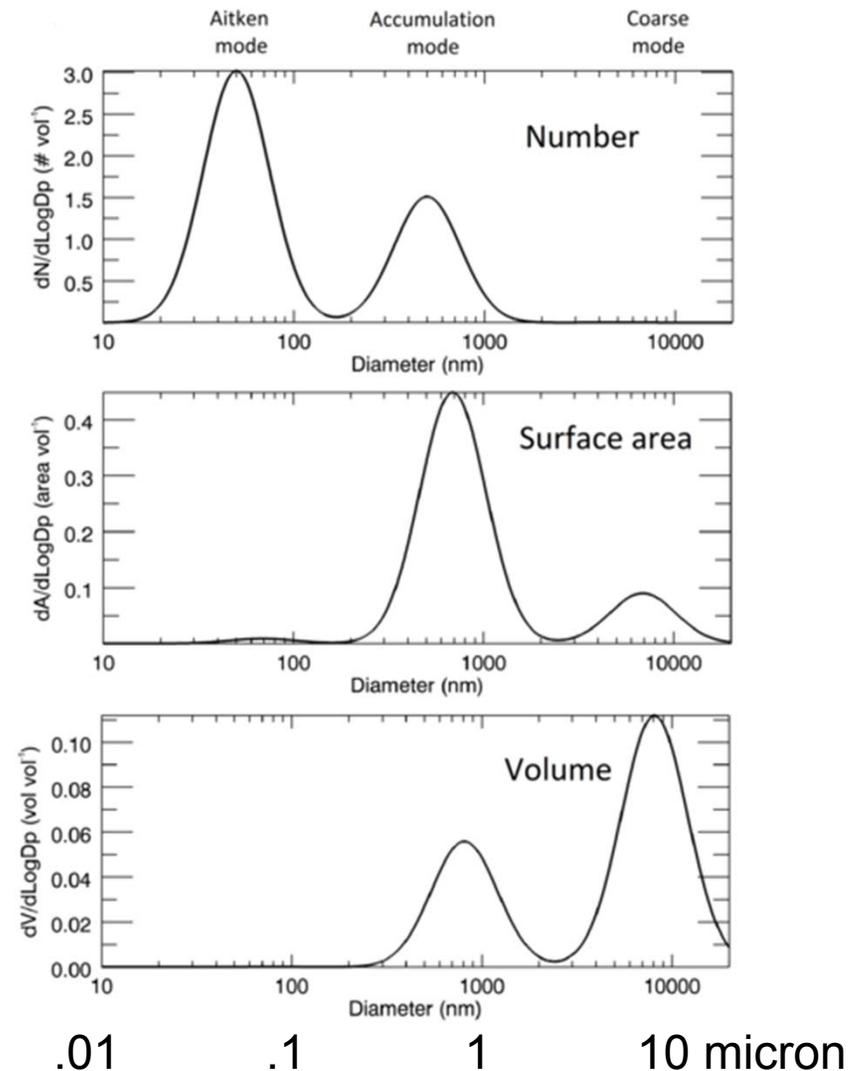
Diesel Particulate Matter is Greatest Contributor to Cancer Risk



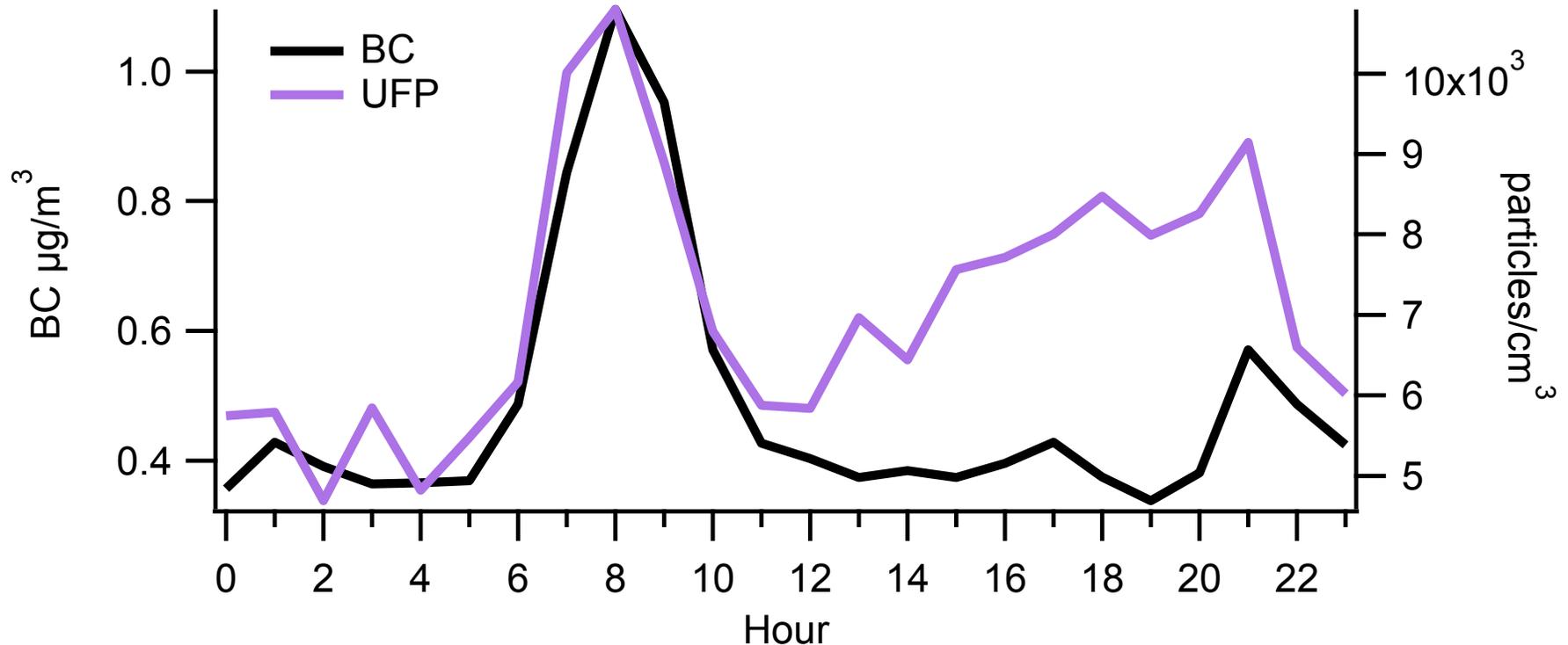
Cancer one-in-a-million excess risk at (a) West Valley City (Hunter High School) and (b) Bountiful. The risk value, or chance in a million, and percent of the total risk are shown for each air toxic. DPM is the greatest contributor to cancer risk at 84% (using the California risk factor for DPM).

Ultra-Fine Particle Measurements

- Ultra-fine particles (UFPs) are suspected of causing short-term health effects (e.g., heart-rate variability).



Weekday Hourly Average Concentrations 2/9-2/24/13 at Hunter HS



BC and UFP typically have a morning peak, while UFP also has an evening peak.

Background Air Quality Summary

- Dominant winds from the south; secondary winds from the northwest.
- BC concentrations have a diurnal pattern.
- Obtained site-specific background concentrations for near-road pollutants of concern.
- As expected, background concentrations of roadway pollutants lower than at near-road locations, but are not zero.

Are Current HVAC Systems Good Enough at Removing Black Carbon (BC)?

School	Filtration Efficiency
Black Carbon	
Hillside Elementary	33.9%
Whittier Elementary	7.2%
Hunter Junior High	29.2%
Hunter High	25.6%
PM_{2.5}	
Hunter High	73.1%

Ambient and classroom BC and PM_{2.5} concentrations and filtration efficiency in one classroom in each school, during school hours spring 2014.

Current HVAC Systems Remove 73% of PM_{2.5}, but only 7%-34% of Black Carbon

Up to 90%-95% of ambient black carbon was removed in Las Vegas near-road schools with improved HVAC systems and improved filters.

Summary of Mitigation Task

- Objective: to design HVAC system modifications to remove outdoor black carbon particles from classroom air
- Steps in mitigation analysis:
 - Evaluate existing system design
 - Evaluate available filters and their performance specifications
 - Perform engineering and cost analysis of potential equipment to be upgraded
 - Evaluate sensitivity of costs to assumptions

Mitigation Recommendations

- HVAC system operations are critical for sufficient ventilation in classrooms.
- HVAC systems in portable classrooms are particularly critical.
- Improved filtration systems for portables being designed
- Estimated first cost plus incremental operating costs over 30 years.
- Total first costs of \$430k, annual incremental cost of \$35k; Net present value (NPV) of \$1.8 million, including 10% contingency.

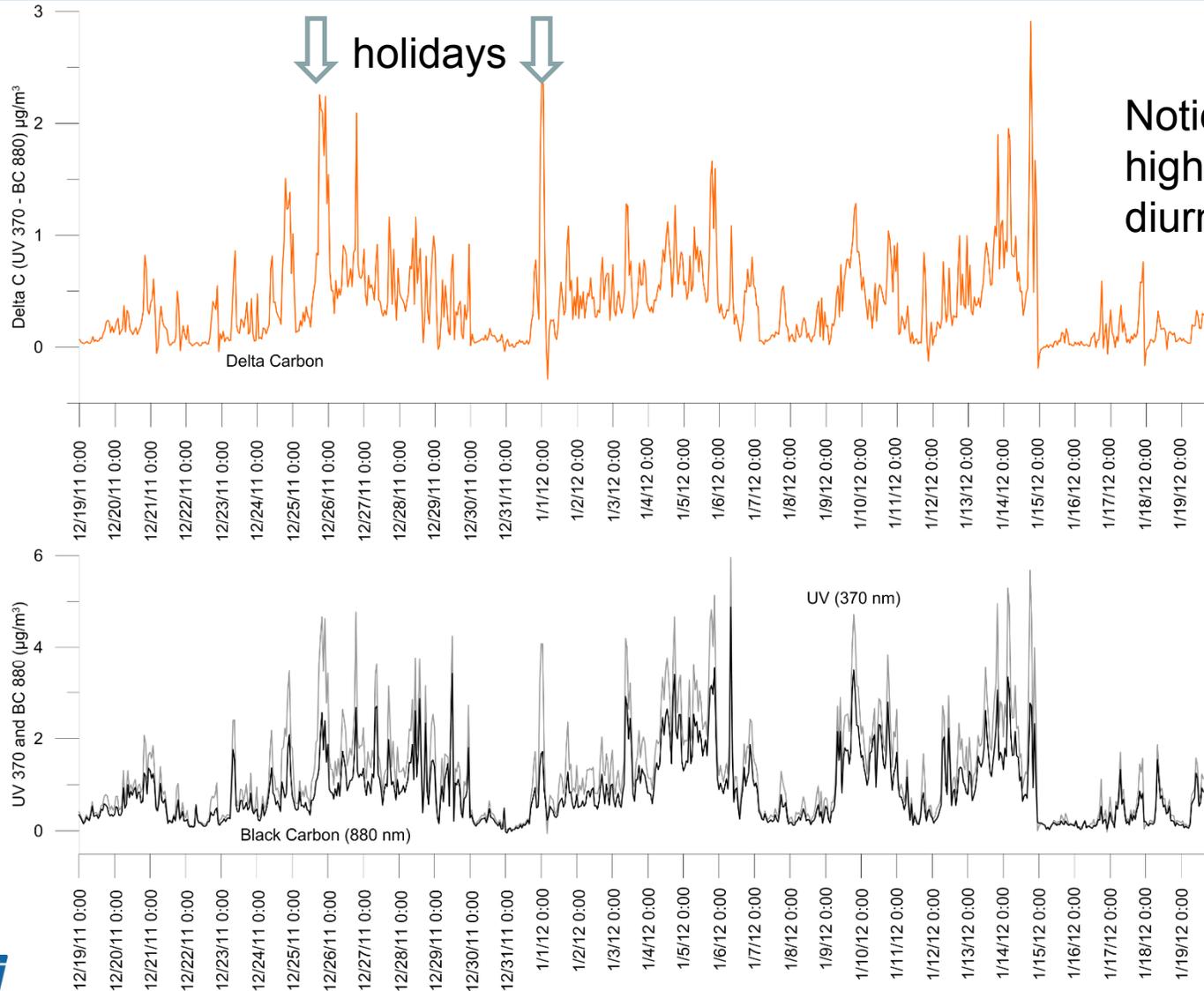
MVC Air Quality and Mitigation: Potential Next Steps

- Presentation and discussions between AWG and GSD (ongoing).
- Construction on MVC to begin in spring 2016 south of 4100 S. (near Hunter HS and Hillside).
- Implementation of mitigation plan in schools (once approved).
- Ambient monitoring to determine student exposure (after MVC is connected to I-80 or SR-201).
- Classroom and outdoor monitoring to demonstrate improved filter effectiveness.

Wood Smoke and Aethelometer Data

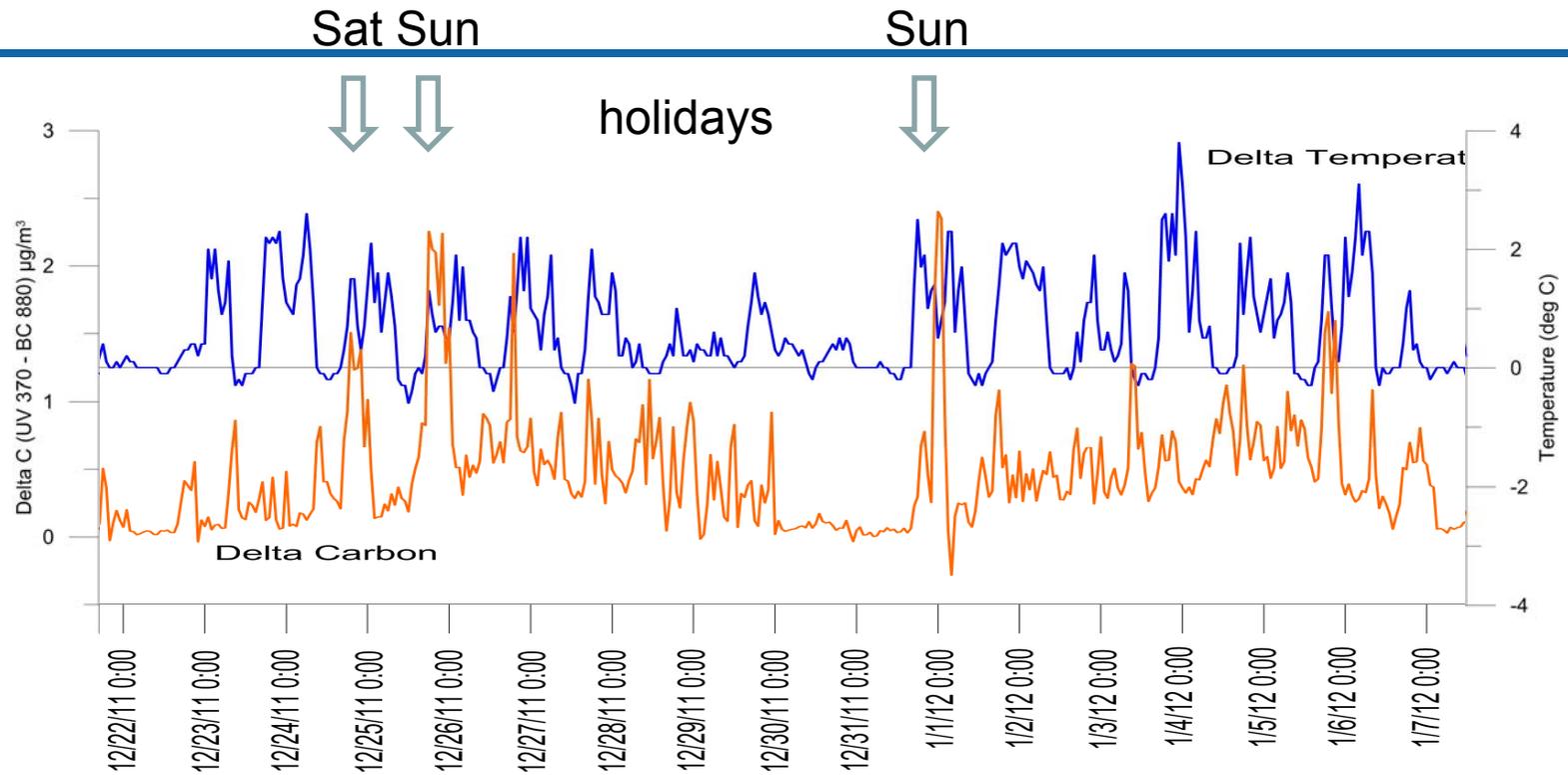
- Ran a multi-wavelength Aethelometer 8/2/2011-8/1/2012 (light absorption).
- At Hunter HS (West Valley City).
- Several methods to estimate wood smoke contribution from Aethelometer data.
- Simplest method: difference between UV channel (370 nm) and black carbon (880 nm), Delta-C.

BC, UV, and Delta-C: Winter 2011-2012



Notice episodes:
higher baseline and
diurnal peaks

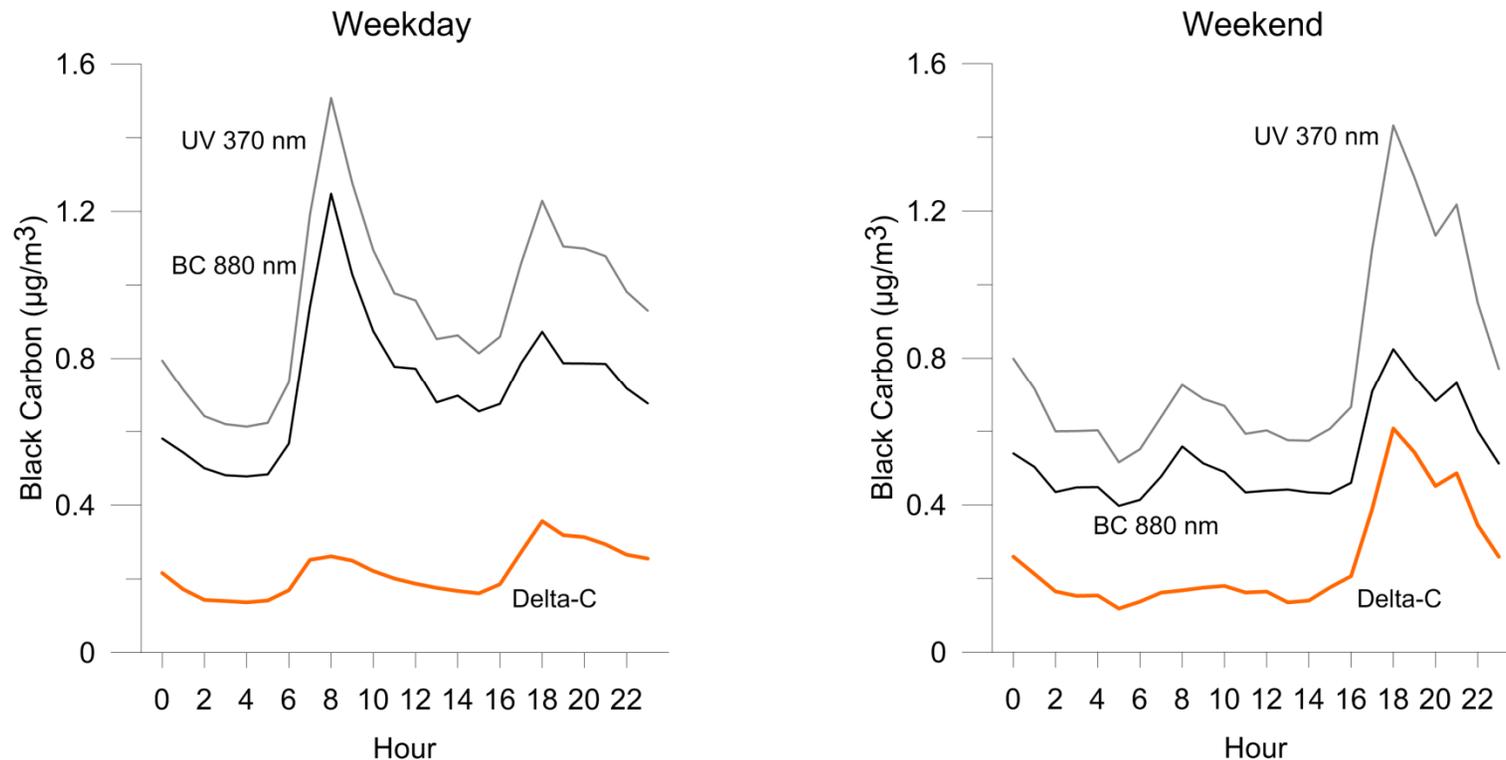
Wood Smoke Contribution for Holidays



Delta Carbon is an indicator of wood smoke.

Delta Temperature is an indication of an inversion.

Mean Diurnal Pattern in BC, UV, and Delta-C



- *Nov. 2011 – Feb. 2012*
- *weekend includes Saturday/Sunday*

Summary of Wood Smoke Results

- Delta-C provides an indication of wood smoke.
- Delta-C increases during weekend evenings (Friday-Sun) and holidays.
- Less indication of wood smoke on evenings during the week.
- Possibly some interference in the delta-c signal during the week due to vehicle emissions.
- Few episodes during this winter but meteorology contributes to high concentrations.

Wood Smoke: Potential Future Steps

- Explore other methods to estimate wood smoke contribution (levoglucosan, potassium, other absorption calculations).
- Monitor black carbon (and collocated $PM_{2.5}$) before/during/after burn bans.
- Understand residential burning patterns (types of stoves, wood types, temporal patterns, compliance with burn bans).

Summary of Background (Pre-Construction) Air Quality and Classroom Measurements

- Diesel particulate matter (DPM) is the greatest contributor to cancer risk from air toxics now. Contribution will be larger with MVC.
- We measured black carbon (BC) as a surrogate for DPM.
- Current HVAC systems remove 73% of PM_{2.5} but only 7-34% of black carbon.
- 90-95% of ambient black carbon was removed in Las Vegas near-road schools with improved HVAC systems and improved filters.

Overview of Today's Presentation

- Background: Why is near-road pollution of concern?
- Background on the Mountain View Corridor (MVC) Air Working Group (AWG).
- Summary of pre-construction outdoor air quality at Hunter High School.
- Current filtration systems' capability to remove diesel particulate matter (DPM).
- Mitigation recommendations for schools.
- Wood smoke in West Valley City

Backup Slides for GSD Presentation

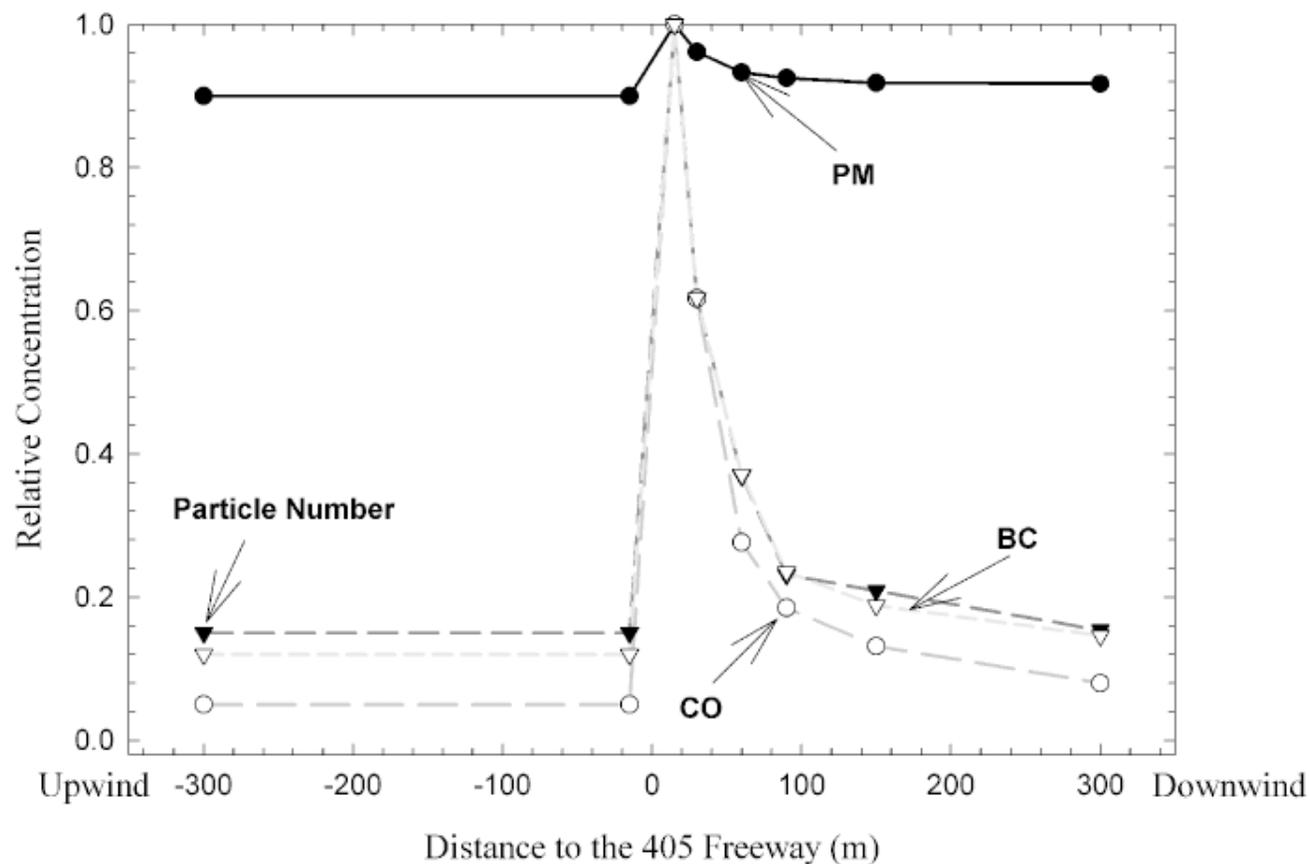
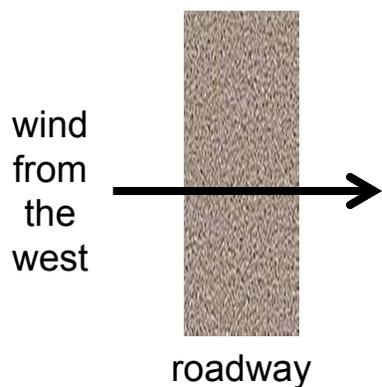
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 - impaired lung function,

but more research is needed to confirm that traffic-related air pollution is the cause of these health problems.



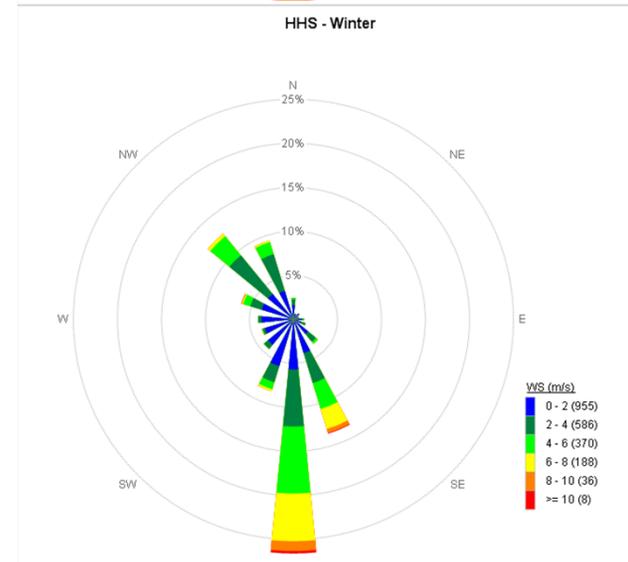
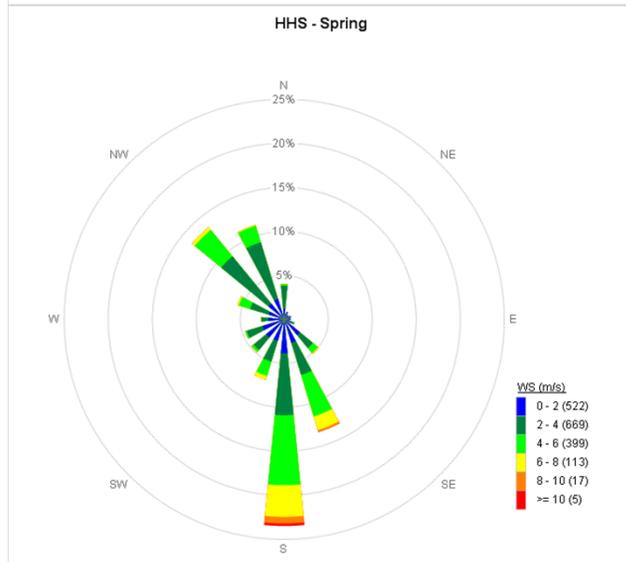
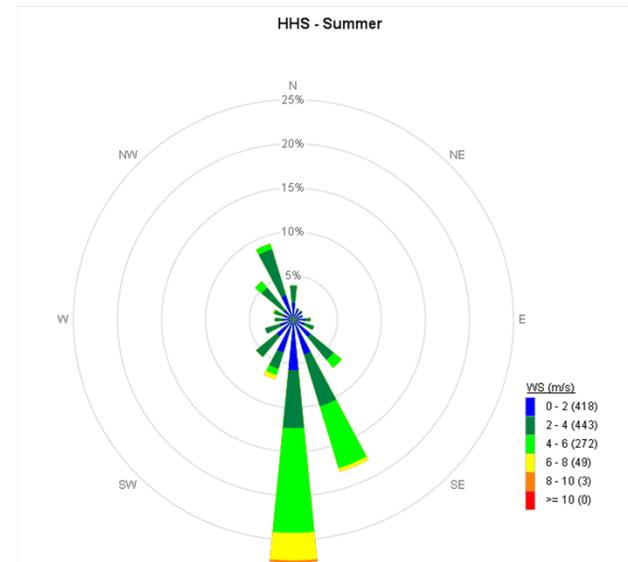
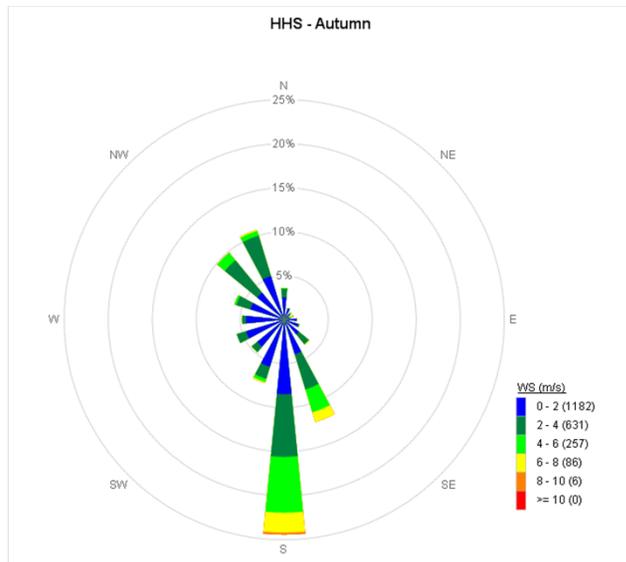
Challenge: Gradients Near Roadways



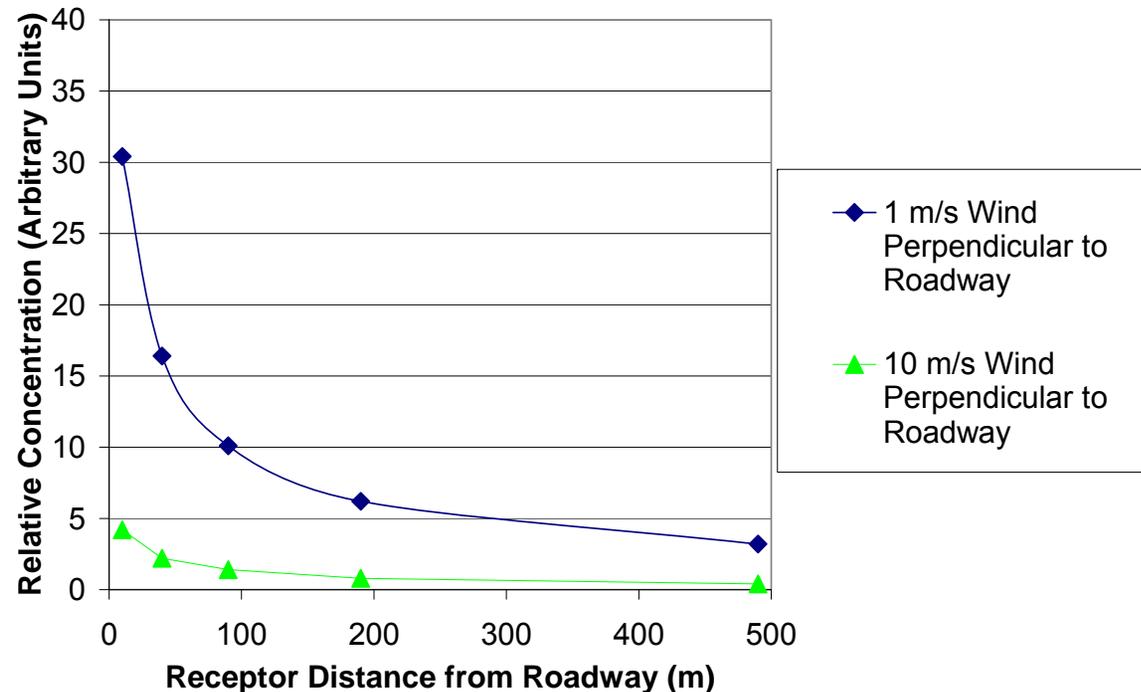
Zhu et al. (2002) Study of ultrafine particles near a major highway with heavy-duty diesel traffic. *Atmos. Environ.*, 36(27), 4323-4335, September.

Wind Comparison Maps (2 of 2)

Hunter HS: Few seasonal differences, but lower wind speeds in fall & winter



Data Analysis / Early Concept Work



Pollutant concentrations vary with **wind speed** and **road distance**. CAL3QHC model results, no background concentrations.

From: Tamura T.M. and Eisinger D.S. (2003) Transportation-related air toxics: case study materials related to US 95 in Nevada. Revised Final White Paper prepared for the U.S. Federal Highway Administration Office of Natural Environment, Washington, DC, by Sonoma Technology, Inc., Petaluma, CA, STI-902370-2308-RFWP, March.

Annual and Seasonal Air Quality

Higher BC concentrations during the winter (Dec-Feb). Winter mean is ~ 28% higher than annual mean.

Statistic	BC	PM ₁₀	PAH	CO ₂
	µg/m ³ 8/2/2011 - 8/1/2012	µg/m ³ 8/6/2011 - 7/31/2012	ng/m ³ 8/2/2011 - 4/5/2012	ppm 8/2/2011 - 8/1/2012
N	8763	8412	5865	8166
Minimum	-0.08	-3	1.61	362
Maximum	12.88	771	109.64	491
Mean	0.54	19.71	4.78	403.89
Median	0.37	15	3.19	400
St. dev.	0.54	25.45	4.75	13.79
Seasonal Mean	BC	PM ₁₀	PAH	CO ₂
Aug. 2011	0.67	25.84	3.52	403.37
Fall	0.61	15.94	4.75	404.74
Winter	0.69	20.36	5.85	413.12
Spring	0.37	16.58	3.2	400.33
June-July 2012	0.39	26.6		394.78

PM₁₀ missing data in Aug 2011

PAH only 5 days in April

CO₂ only 70-80% of data in Oct-Nov

Concentrations During School Hours

BC and PM₁₀ concentrations during school hours were very similar to winter seasonal highs.

Statistic	BC µg/m ³	PM ₁₀ µg/m ³	PAH ng/m ³	CO ₂ ppm
N	2239	2169	1744	2084
Minimum	0.01	-2	1.89	365
Maximum	12.88	502	109.64	487
Mean PTR2	0.67	20.35	6.51	402.59
Median	0.47	17	4.5	399
St. dev.	0.65	23.6	6.03	13.58

8/22/11 – 6/1/12, inclusive
M-F only
6 a.m. to 6 p.m.
Excluding (all ranges are inclusive):
10/20/11-10/21/11
10/23/11-10/25/11
11/23/11-11/25/11
12/23/11-1/2/12
4/3/12-4/6/12

Slide 48

PTR2

Chelsea: can you highlight mean row like previous slide?

Paul Roberts, 12/13/2013

Description of a Box Whisker Plot

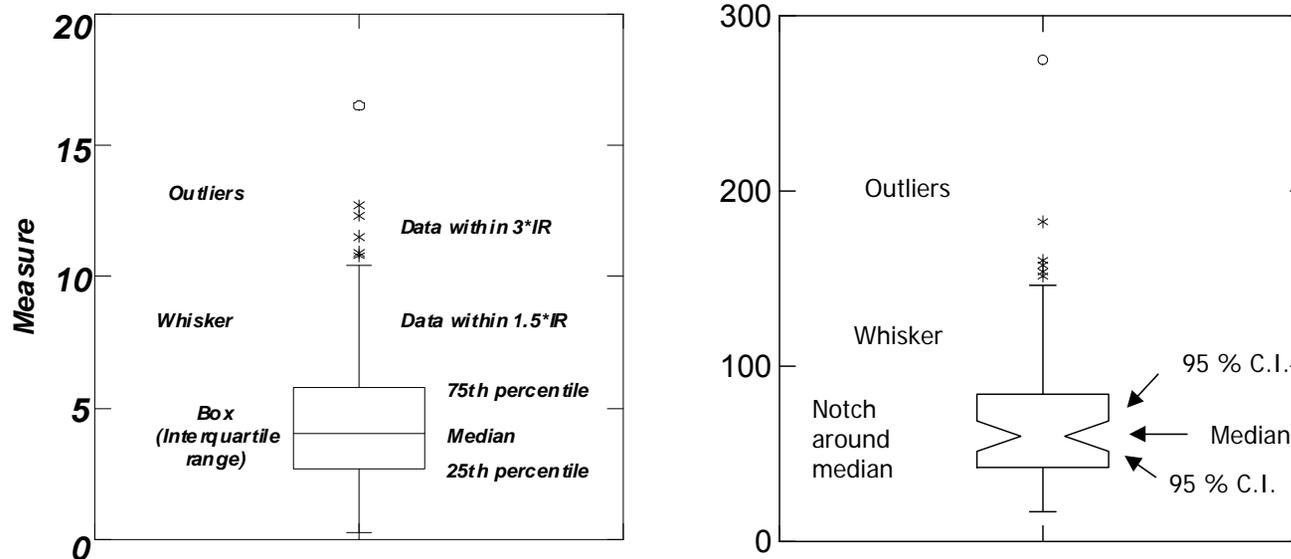


Illustration of box whisker plots and notched box whisker plots used in this project.

In box whisker plots (an example is shown here), the box shows the 25th, 50th (median), and 75th percentiles. The whiskers always end on a data point, so when the plots show no data points beyond the end of a whisker, the whisker shows the value of the highest or lowest data point. The whiskers have a maximum length equal to 1.5 times the length of the box (the interquartile range). If there are data outside this range, the points are shown on the plot and the whisker ends on the highest or lowest data point within the range of the whisker. The “outliers” are further identified with asterisks representing the points that fall within three times the interquartile range from the end of the box and with circles representing points beyond this.

Because we were interested in how similar or dissimilar the data are among time periods, we used an option called a notched box whisker plot to analyze data in this study. These plots include notches that mark confidence intervals. The boxes are notched (narrowed) at the median and return to full width at the 95% lower and upper confidence interval values. If the 95% confidence interval is beyond the 25th or 75th percentile, then the notches extend beyond the box (hence a “folded” appearance). Confidence intervals are a function of sample size; small sample size will increase these intervals.

Slide 49

CBJ2 Is anyone going to be able to read all this text? Also, there's a reference to Figure B-1, which isn't here.

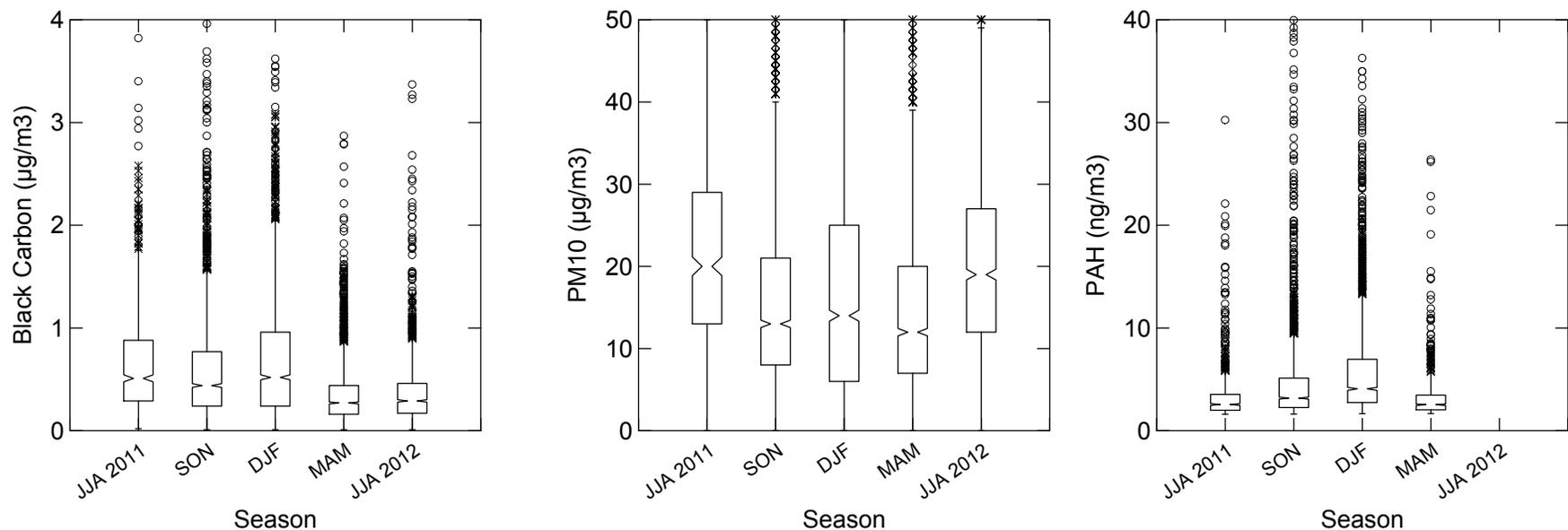
Chelsea B. Jennings, 12/12/2013

ptr3 detailed text for reading later in hard copy. B-1 ref eliminated.

Paul Roberts, 12/15/2013

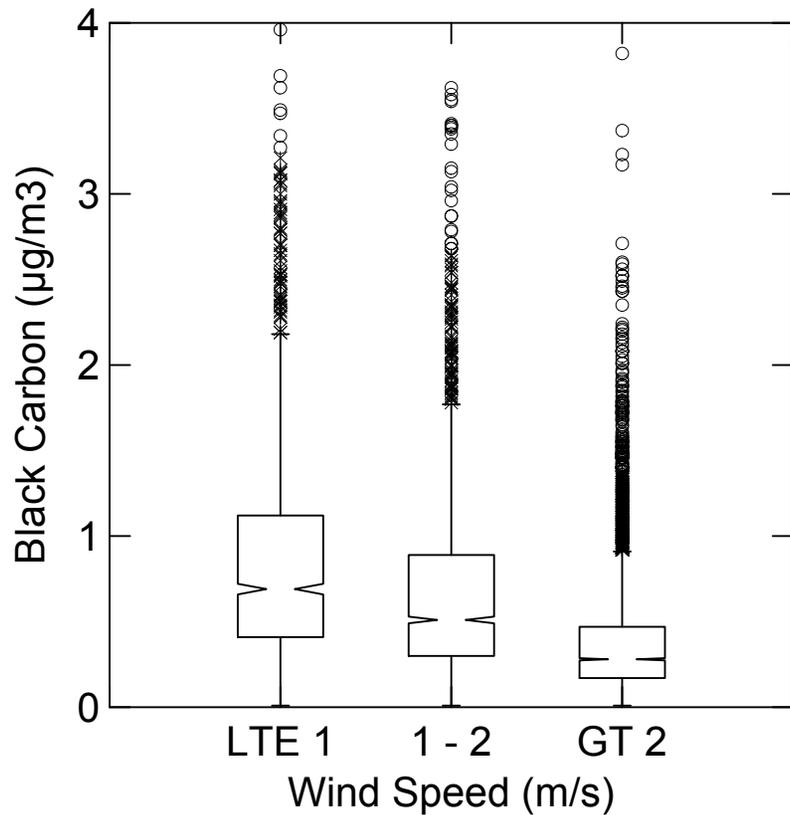
Seasonal Air Quality Concentrations

- BC highest in fall and winter.
- PM₁₀ highest in winter (primary PM) and summer (primary plus secondary).
- PAH highest in winter.

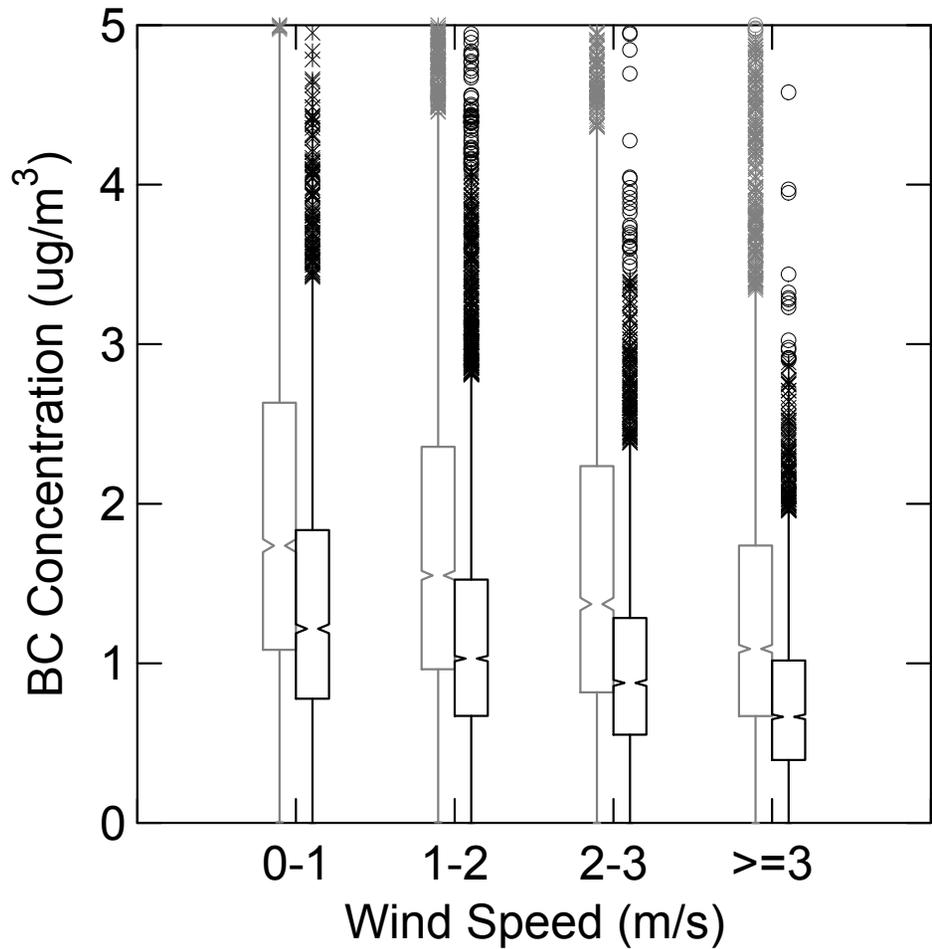


All data 8/2/2011-8/1/2012

BC Concentrations by Wind Speed



Hunter HS data 8/2/2011-8/1/2012



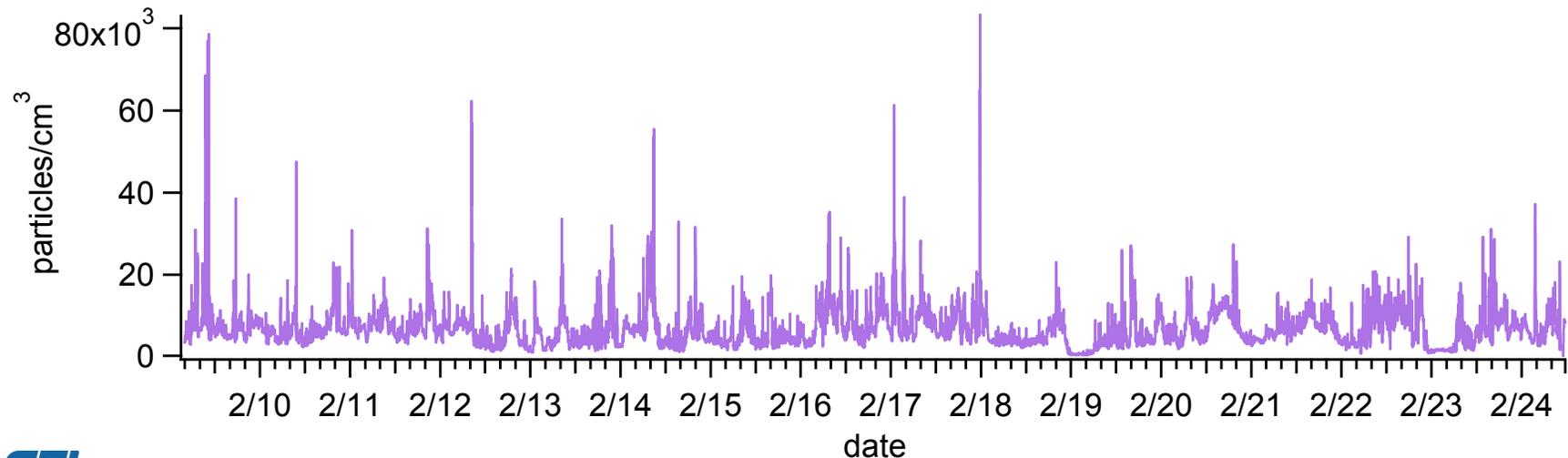
Fyfe data next to US 95 Las Vegas
(Summer 2007, gray; Summer 2008, black)

Ultra-Fine Particle Measurements

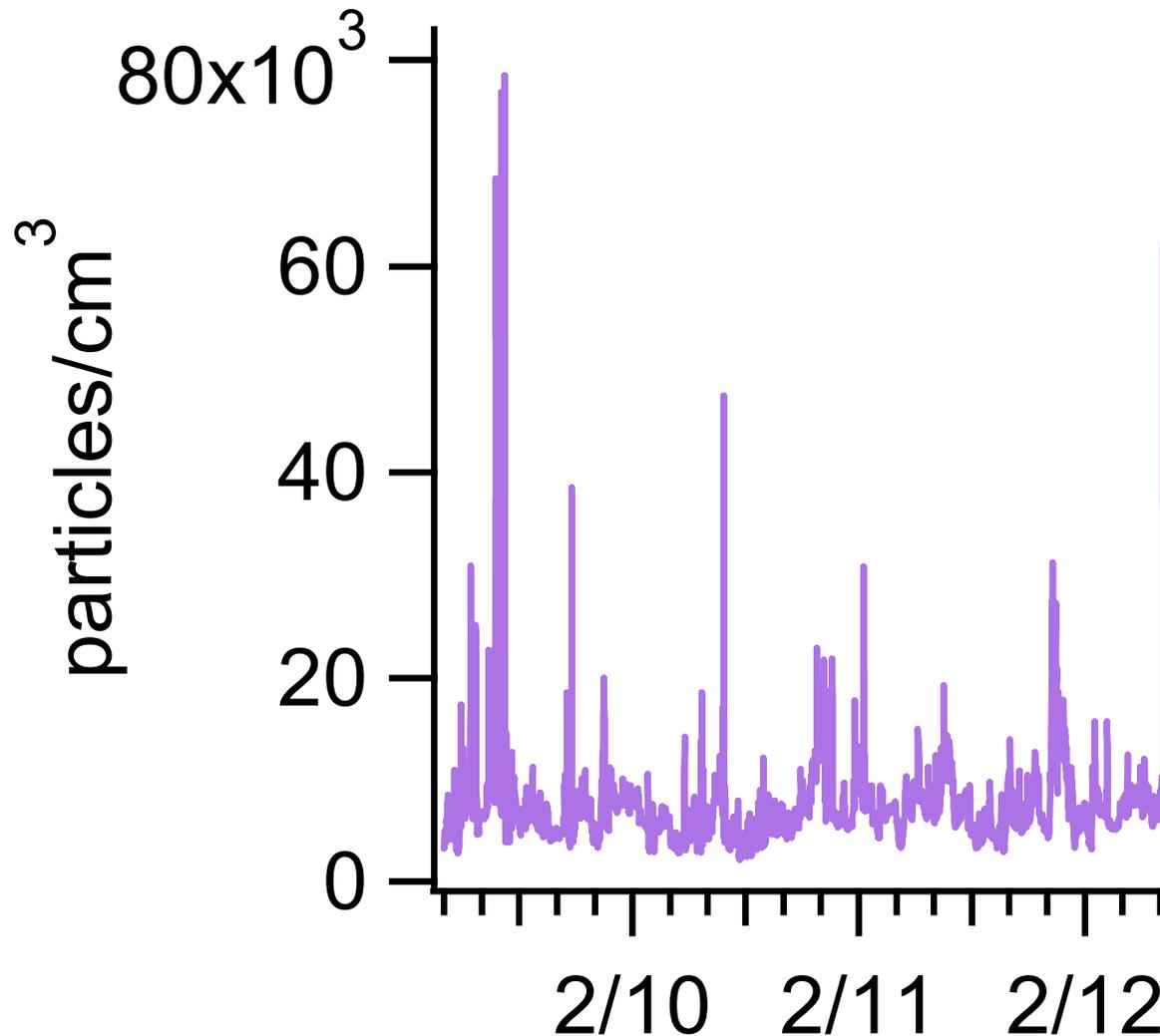
- UFPs measured by Teledyne-API model 651 water-based condensation nuclei counter.
- Measures particles from 0.007-3 μm .
- Grows particles with water, then counts them with a laser.

Ultra-Fine Particle Measurements

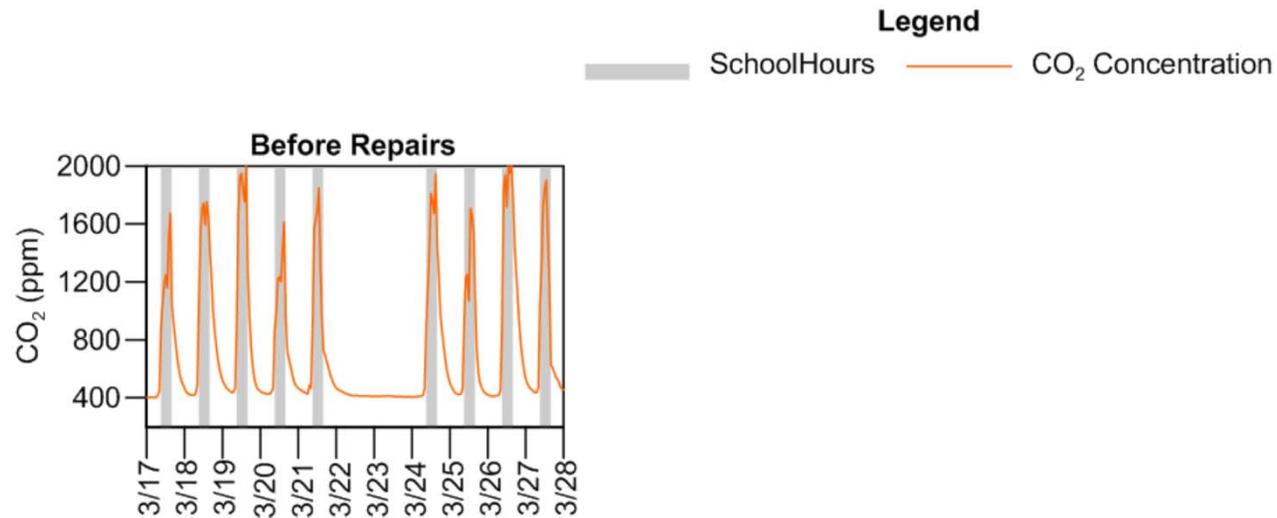
- UFP data collected from 2/9-2/24
- Max hourly value = 19,587 particles/cm³
- Average hourly value = 6,755 particles/cm³
- Compare next to US 95 during spring 2013 average hourly value = 11,022 particles/cm³



UFP Concentrations are Highly Variable

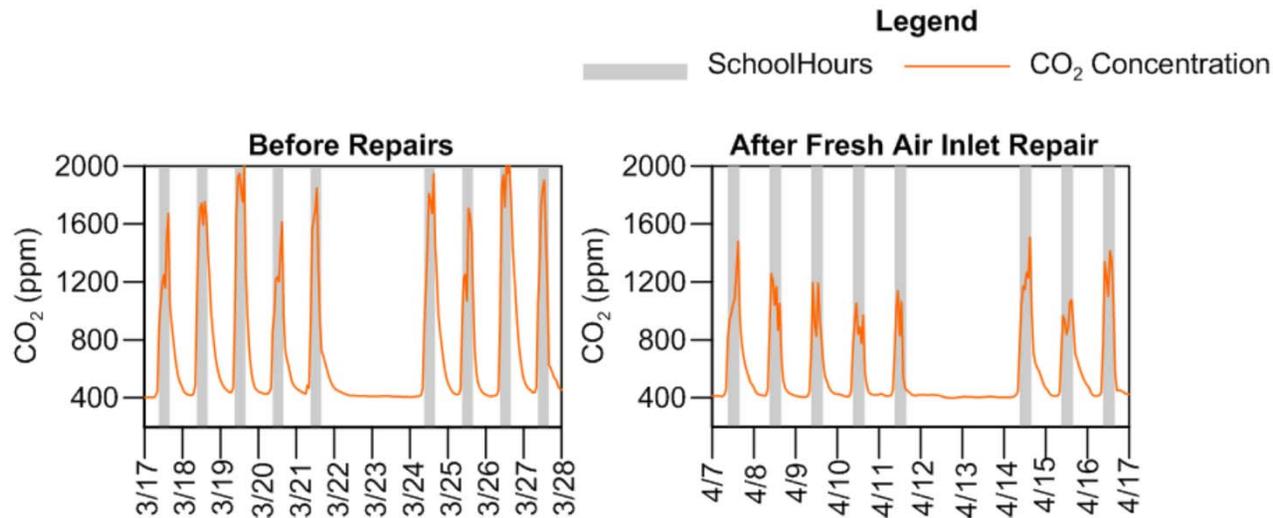


CO₂ Concentration and Ventilation Rate



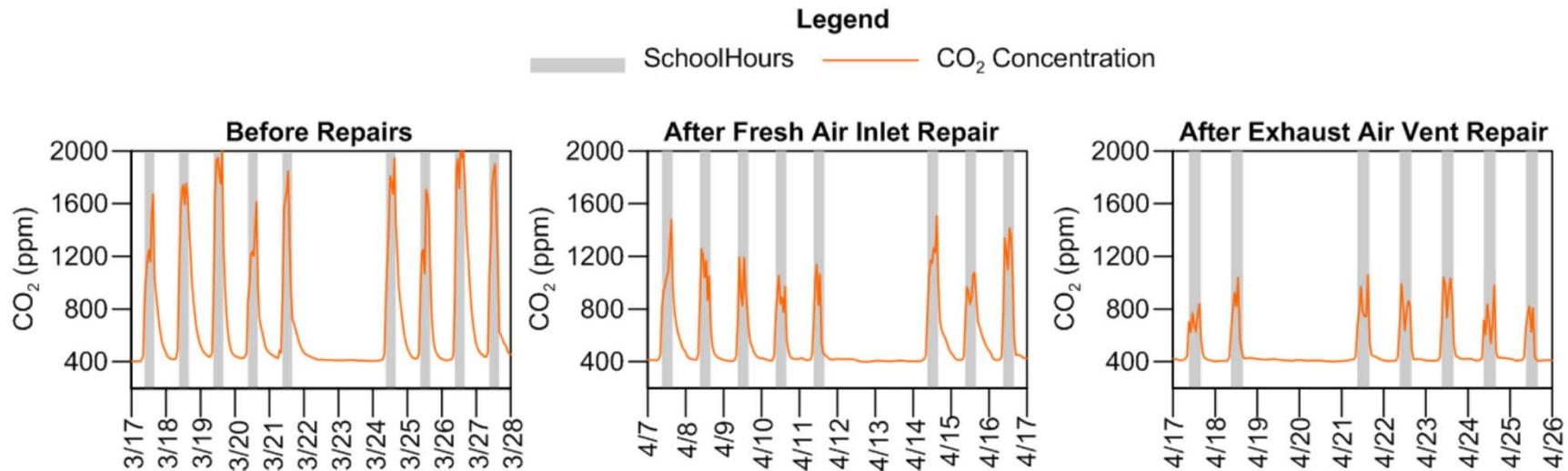
- Initially, CO₂ concentrations in Room 107 at Hillside were reaching 1800-2000 ppm each day (left graph).

CO₂ Concentration and Ventilation Rate



- Initially, CO₂ concentrations in Room 107 at Hillside were reaching 1800-2000 ppm each day (left graph).
- After repair of the fresh air inlet operating system, CO₂ concentrations were reaching 1000-1400 ppm each day (middle graph).

CO₂ Concentration and Ventilation Rate



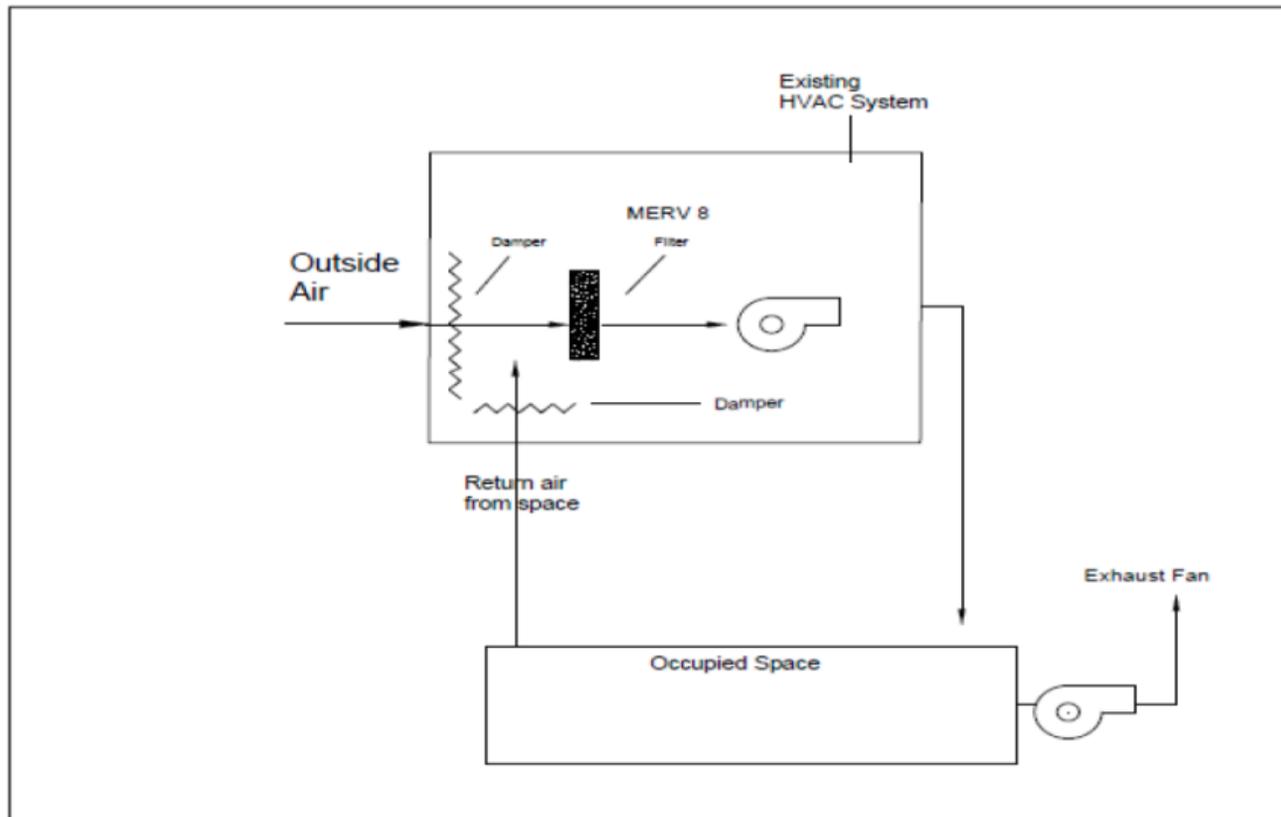
- Initially, CO₂ concentrations in Room 107 at Hillside were reaching 1800-2000 ppm each day (left graph).
- After repair of the fresh air inlet operating system, CO₂ concentrations were reaching 1000-1400 ppm each day (middle graph).
- After repair of the exhaust air vent operating system, CO₂ concentrations were reaching only 800-1000 ppm each day, a significant improvement (right graph).

HVAC System Operations Critical to Meeting Classroom Guidelines

School	Representative Dates	Average Classroom CO ₂ (ppm)	Outdoor Airflow Rate (cfm/person)
Hillside Elementary	Mar 17-27 (before repairs)	1,477	5.7
Hillside Elementary	Apr 7-16 (after fresh air inlet repair)	984	10.4
Hillside Elementary	Apr 17-June 6 (after exhaust air vent repair)	806	15.0
Hunter Jr. High	Mar 15-June 6	753	24.2
Hunter High	Mar 24-27; May 7-9, May 15-28 (baseline CO ₂ = 400 ppm)	640	44.9

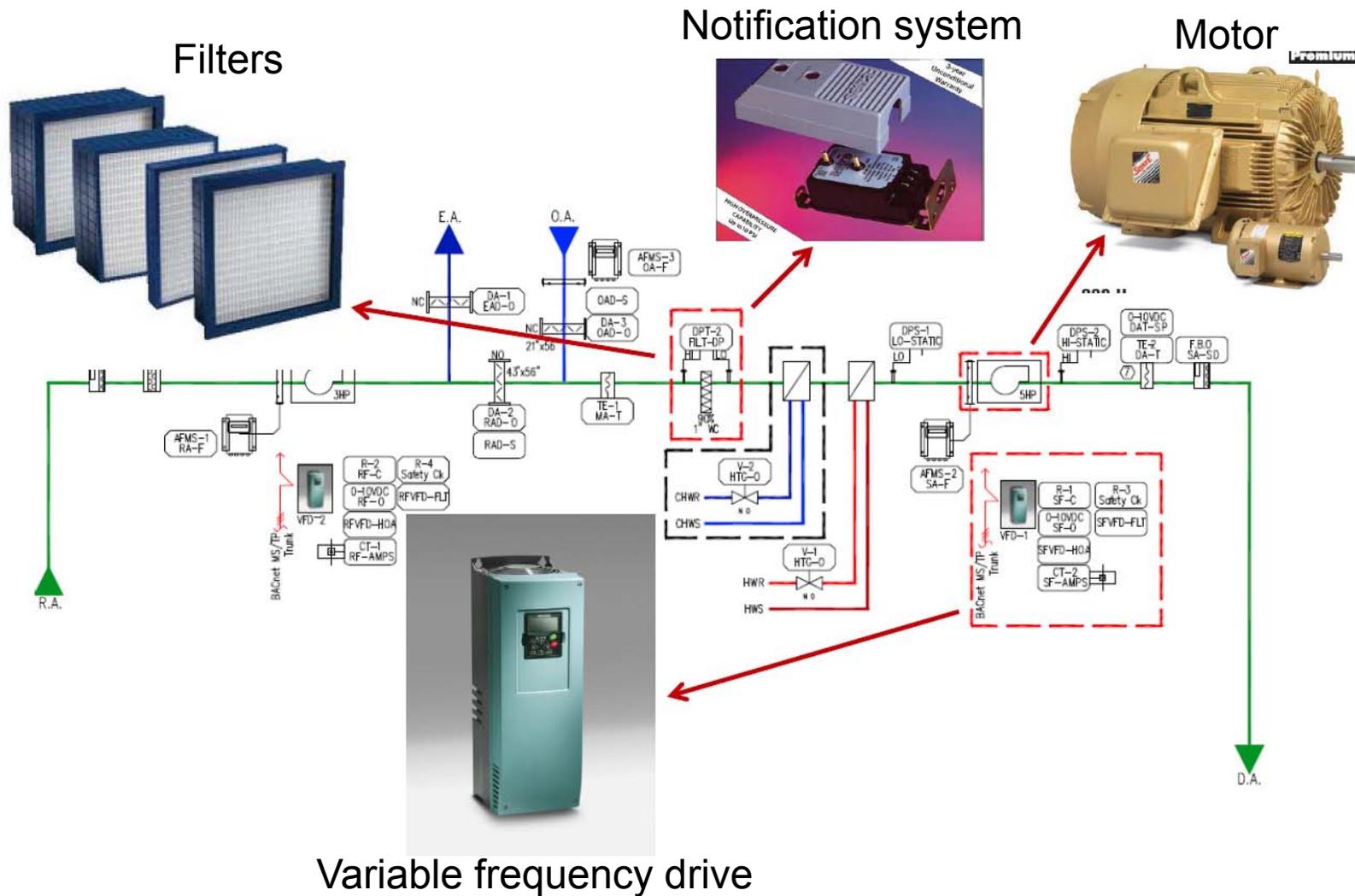
American Society of Heating Refrigerating, and Air Conditioning Engineers (ASHRAE, 2013) recommend that ventilation rates in school classrooms should be at least 13-15 cfm per person, resulting in a steady-state indoor CO₂ concentration of about 1,000 ppm.

General HVAC System in a School



Expectation: Filtration systems could remove up to 90%-95% of outdoor black carbon particles, per results from Las Vegas schools.

Example Modifications to AHUs



AHU = air handling unit

Capital & Installation Cost (First Cost) Example

Hunter High Air Handler-9 (AH-9)

Serves Upper West Classrooms of Hunter High
(6,000 CFM)

MERV 13A first filter set



\$307

New Premium Efficiency 10 HP motor



\$2,897

New Variable Frequency Drive

\$4,098

EMS Upgrade for Filter Change Notification



\$576

Allowance for new wiring

\$690

Share of test & balance cost (1/34) of \$11,250

\$331

Total cost associated with AH-9

\$8,946



Assumptions for Mitigation Cost Estimates

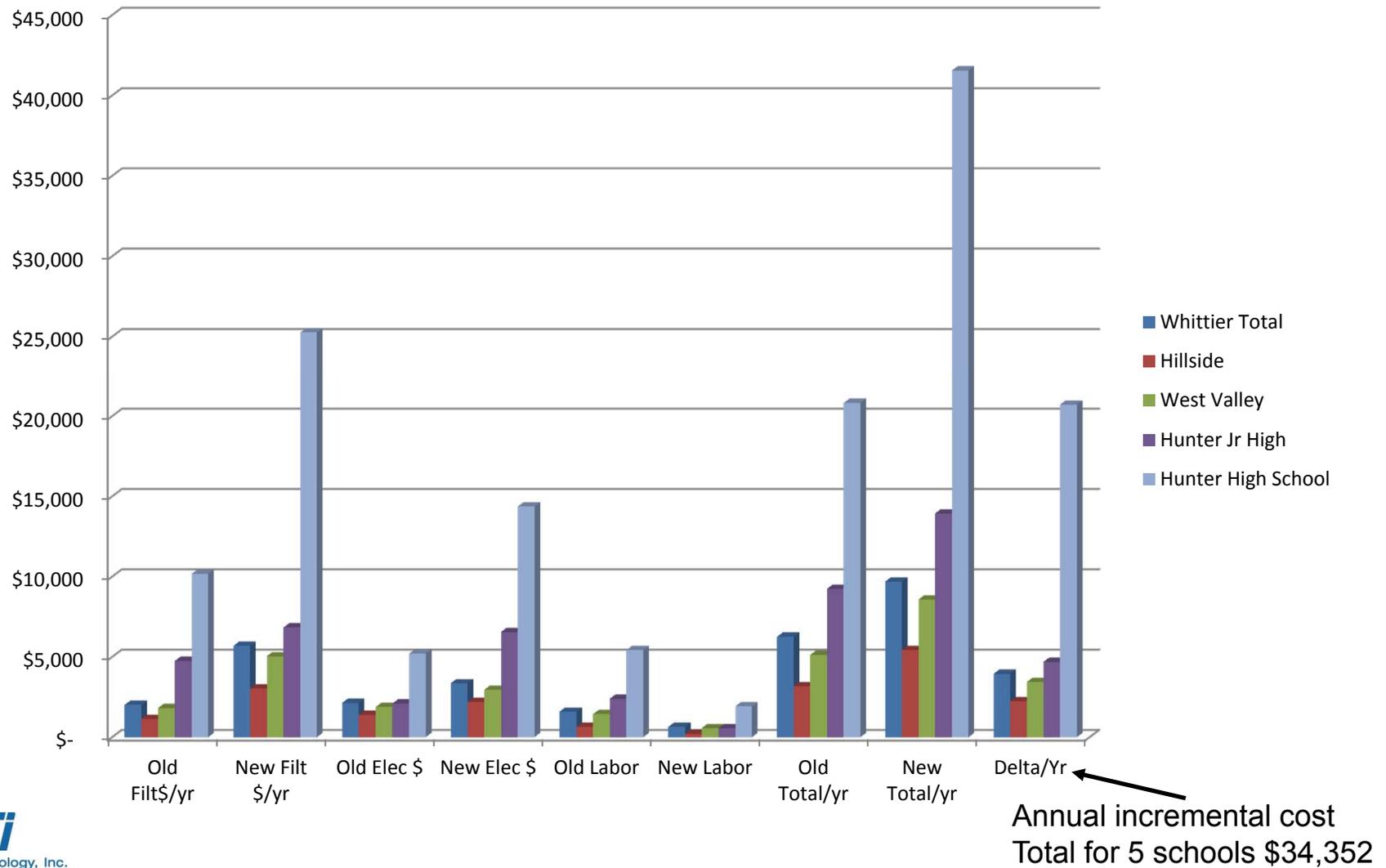
Item	Hunter High	Hunter Jr. High	Whittier Elementary	Hillside Elementary	West Valley Elementary
Time horizon in years	30	30	30	30	30
Time value of money (%)	3	3	3	3	3
Annual inflation (%)	4	4	4	4	4
District labor cost (\$/hr)	40	40	40	40	40
HVAC operating (hours/week)	80	55	65	55	65
HVAC operating (weeks/year)	37	37	37	37	37
PM ₁₀ concentration (µg/m ³)	20	20	20	20	20
District electric cost (\$/kWh)	\$0.0375	\$0.0375	\$0.0375	\$0.0375	\$0.0375
District demand cost (\$/kW)	\$17.69	\$17.69	\$17.69	\$17.69	\$17.69
Filter cost (\$)	Varies	Varies	Varies	Varies	Varies
Filter pressure drop limit (in-H ₂ O)	Per Engineer of Record	Per Engineer of Record	1.0	1.0	1.0

Assumptions approved by AWG and Dr. David Gourley, GSD

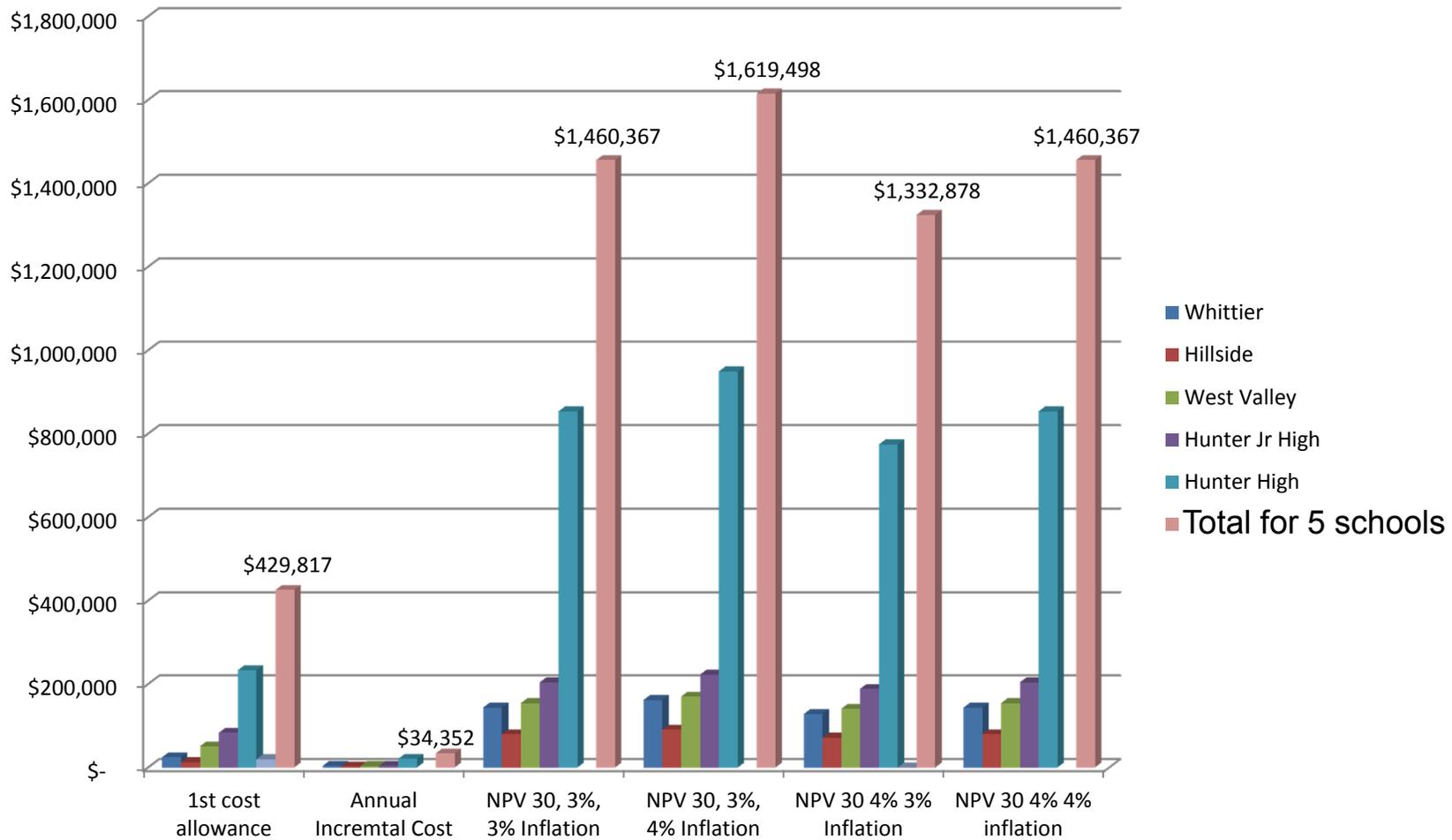
Characteristics of the Five Schools

School	Total Enclosed Area (ft ²)	Percent of Enclosed Area	Number of Students	Percent of Students
Whittier	104,922	14%	687	14%
Hillside	54,667	7%	625	12%
West Valley	88,920	12%	584	12%
Hunter Jr High	172,120	23%	1,047	21%
Hunter High	340,000	45%	2,086	41%
Total for five schools	760,629		5,029	

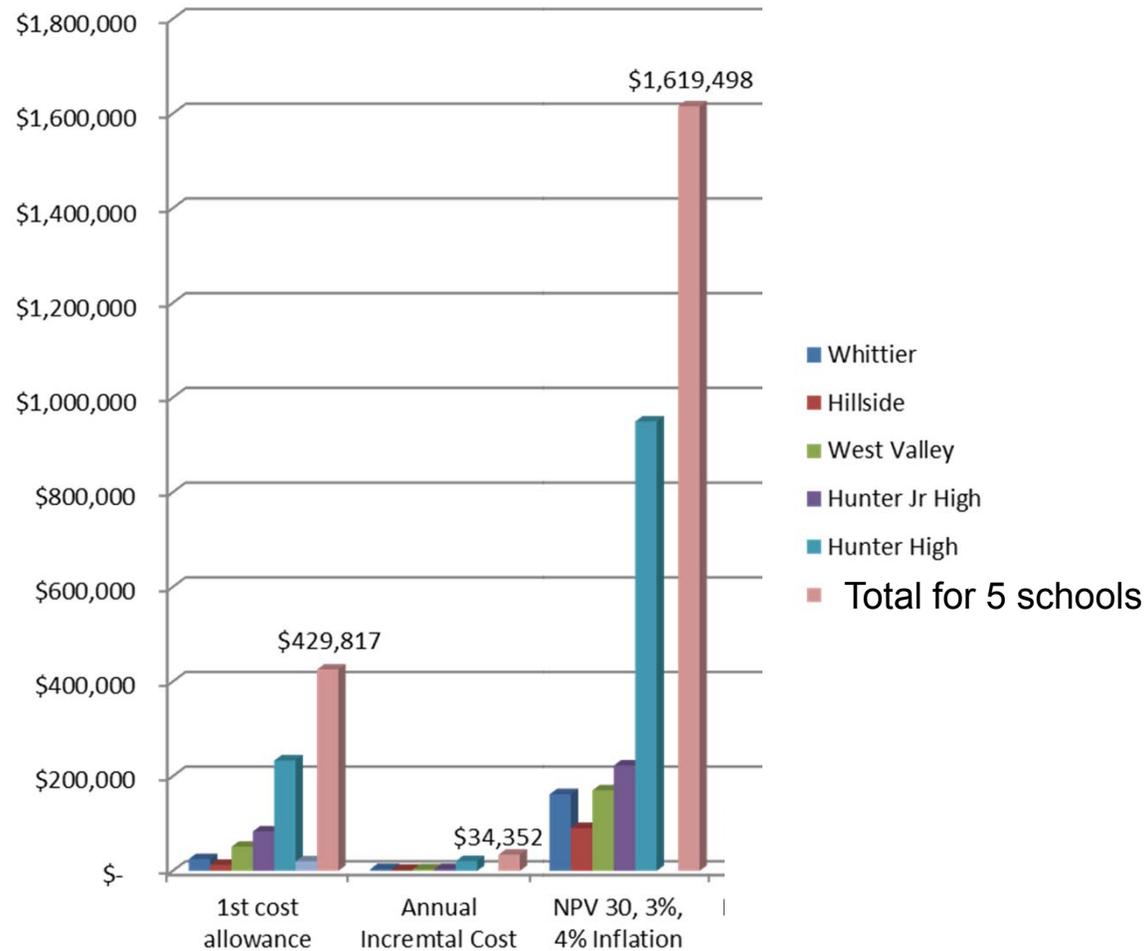
Example of Cost Analysis Results: Estimated HVAC Operating Cost by School



Estimated Net Present Value (NPV) for the Five Schools



Estimated Net Present Value (NPV) for the Five Schools



Estimated Project Cost by School

School	First Cost Allowance	Annual Incremental Cost	NPV 30, 3% Interest, 4% Inflation	Total Enclosed Area (ft ²)	Number of Students	Dollars/ft ² /Year	Dollars/Student/Year
Whittier	\$26,973	\$3,952	\$163,854	104,922	687	\$0.045	\$6.89
Hillside	\$14,853	\$2,247	\$92,659	54,667	625	\$0.049	\$4.28
West Valley	\$53,020	\$3,446	\$172,370	88,920	584	\$0.056	\$8.52
Hunter Jr High	\$91,754	\$4,025	\$231,165	172,120	1,047	\$0.039	\$6.38
Hunter High	\$243,216	\$20,681	\$959,449	340,000	2,086	\$0.081	\$13.28
Total for five schools	\$429,816	\$34,352	\$1,619,497	760,629	5,029	\$0.062	\$9.30

Based on annual incremental operating cost plus first cost (capital & installation cost) allocated over 30 years at 3% interest, 4% inflation.

Improved Filtration Yet Longer Filter Life

- Replacement MERV-13A filters will hold 100 grams of dust before their pressure drop exceeds the predetermined level
- Current MERV-8 filters are by practice replaced 4 times a year
- Typical aerosol has most of its mass in the large particles
- MERV-13A will do a better job filtering smaller (respirable-size) particles
- MERV-13A filters increase mass filtration efficiency from 70% (MERV-8) to 92% for typical aerosol
- Choice of filters and changing based on pressure drop rather than calendar

Components of Mitigation Costs

- First cost: Purchase of replacement or new equipment, required modifications, adjustments, etc.
- Operating costs: Increase in filter costs, increase in energy costs, reduction in labor due to fewer filter changes
- Time value of money
- Inflation

Outline of Assumptions for Mitigation Cost Estimates

The following assumptions have a significant influence on the mitigation cost estimates. We want these assumptions to be consistent with how the Granite School District views their projects.

The assumptions can be classified in three groups:

- Financial
- Operating conditions
- Technical conditions

Financial Assumptions for Mitigation Cost Estimates

- Expected time horizon for this mitigation project (expected life of the equipment or years until the next major school renovation)
- Time value of money over the expected time horizon
- Inflation over the expected time horizon
- District labor cost for filter replacement

Technical Assumptions for Mitigation Cost Estimates

- Electric costs based on current values
- Electric cost inflation will track general inflation assumed for the project
- Filter performance based on filter test and specification data for products currently available and priced by vendor for this project
- Ability of Air Handler Units based on original design drawings for Whittier Elementary, Hillside Elementary, and West Valley Elementary

Technical Assumptions for Mitigation Cost Estimates

- Ability of Air Handler Units to accommodate the enhanced filters based on limitations prescribed by the “engineer of record” for the recent air conditioning projects completed at Hunter High and Hunter Junior High
- First cost estimates are based on information from vendors that have been or are currently working at the school district

Mitigation Recommendations (other than improved filtration)

- Place portable classrooms as far away from MVC as possible.
- Avoid outdoor activities during morning rush hour.
- Minimize outdoor activities during periods with strong inversions.
- Provide training for teachers with difficult classrooms (windows that open; doors that open to the outside, rather than to an interior hallway).
- Control HVAC systems to minimize filling classrooms with morning rush-hour pollutants.
- Eliminate or minimize emissions from indoor sources (cleaning materials, markers, etc.).

Request for
Rulemaking for
Ultra-Low NO_x
Water Heaters

Dear Air Quality Board Members,

As you know, Utah's air quality is an issue that matters to everyone. On October 15, 2013, Governor Herbert asked Envision Utah to convene and facilitate the Clean Air Action Team. The individuals on the team represent a broad spectrum of interests and expertise in our community, including representatives from health care, business, nonprofit organizations, government, academia, transportation, and others.

This independent Team was tasked with working to provide a set of broadly supported recommendations to improve our air quality. In October 2014 the Clean Air Action team presented its final recommendations to the Governor, legislative leadership, and to your Board. This set of comprehensive recommendations will significantly improve Utah's air quality in the winter and summer. These recommendations are intended to complement and add to the actions proposed in the current State Implementation Plan process.

The Governor's Clean Air Action Team respectfully submits the attached draft rule regarding ultra-low NOx water heaters to the Air Quality Board for your consideration. Adoption of this rule will allow suppliers to move out their current inventories of water heaters and move toward selling only ultra-low NOx water heaters as of a date 1-4 years in the future.

Burning natural gas in homes, whether in furnaces, water heaters, or other appliances, produces nitrogen oxides (NOx), which react with other gases in the air to form particulate matter. Water heaters make up approximately 45% of a building's emissions. Ultra-low NOx water heaters emit 70% less NOx than their counterparts. If every water heater were replaced with the ultra-low NOx variety, building emissions would be reduced by about 37%. The average life of a water heater is 7 years, and it is estimated that within 10 years almost all our water heaters could be ultra-low NOx models. Although ultra-low NOx water heaters do not necessarily increase energy efficiency, they do not cost more to manufacture than standard water heaters, and it is estimated that if the demand for ultra-low NOx water heaters in Utah increased this product would be brought to local stores, making the cost and availability comparable to what Utahns experience today with standard water heaters.

Sincerely,



Lonnie Bullard
Chairman
Jacobsen Construction
Team Co-Chair



Michelle Hofmann, MD, MPH
Medical Director
Riverton Hospital's Children's Unit
Team Co-Chair



Robert Grow
President and CEO
Envision Utah
Team Facilitator

Clean Air Action Team Recommendations

Poor air quality during certain periods of the year ranks as Utahns' greatest concern about their quality of life, and it threatens not only our health but our economy as we seek to recruit and retain businesses and a high-quality workforce.

On October 15, 2013, Governor Gary Herbert asked Envision Utah to convene and facilitate the Clean Air Action Team, which includes representatives from health care, business, nonprofit organizations, government, academia, transportation, and more. This independent team was tasked with working to provide a set of broadly supported recommendations to improve our air quality.

The team's consensus recommendations are set forth below. Combined with the controls that are already being put into place through the state's State Implementation Plan efforts, these recommendations will make a substantial difference in the amount of emissions we put into our air. Moreover, the projected cost to Utahns is fairly minimal.

With about half of our emissions coming from automobiles and another 40% coming from buildings and other "area sources," most of our air pollution originates from our own cars, homes, and businesses. These recommendations target those emission sources, with particular emphasis on strategies that (1) result in substantial reductions in emissions, and (2) require relatively little expense. With concerted action, together we can clean our air.

As Utah's population continues to grow, these actions become even more imperative. By 2050, the Governor's Office of Management and Budget estimates that the state's population will nearly double. In our urban areas where air quality is a challenge, that translates to roughly doubling the number of miles we drive and the number of buildings that need to be heated. To improve our air quality, we will need to significantly reduce the amount of pollution each person produces.

Emission Inventories

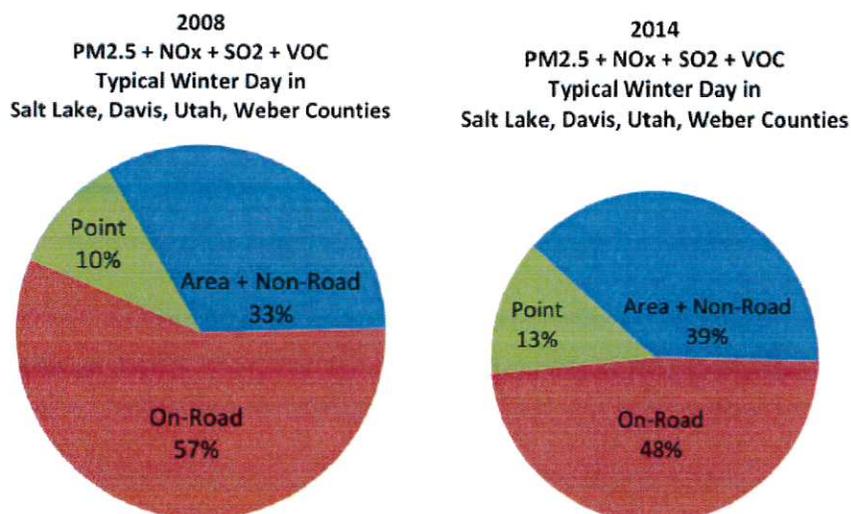


Figure 1. Source: Utah Division of Air Quality

Summary of Recommendations

1. Ensure Utahns have access to low-sulfur Tier 3 fuel as soon as possible.
2. Accelerate the transition to cleaner Tier 3 cars. If all cars and fuel were Tier 3 by 2050 we would remove approximately 62% of mobile emissions per day from our air.
3. Reduce the amount of wood burning that occurs during inversion periods. Eliminating residential wood burning would decrease daily area source emissions by about 5% in 2050.
4. Invest additional resources in public transportation and facilities that make “active transportation” modes like biking and walking more convenient. By 2050, if we reduce the number of miles driven per capita by 10% we would reduce daily mobile emissions by roughly 8%.
5. Allow the Air Quality Board and Division of Air Quality to adopt rules that are more stringent than federal regulations and continue to give the Division of Air Quality sufficient budget to continue effectively achieving its mission.
6. Adopt a rule to require suppliers to sell only ultra-low NO_x water heaters. Replacing all water heaters with ultra-low NO_x models would reduce daily area emissions by about 5.3% in 2050.
7. Increase the energy efficiency of our existing and new buildings. Increasing the efficiency of existing buildings could reduce area source emissions by about 1.7%. Increasing new building efficiency by 50% would eliminate approximately 2.4% of our area source emissions by 2050.
8. Continue current efforts to reduce emissions from the oil & gas operations within the Uintah Basin.

R307. Environmental Quality.

R307-XXX. NO_x Emission Limits for Natural Gas-Fired Water Heaters.

R307-XXX-1. Purpose.

The purpose of R307-XXX is to reduce emissions of nitrogen oxides (NO_x) from natural gas-fired water heaters.

R307-XXX-2. Applicability.

R307-XXX applies to the sale and installation of natural gas-fired water heaters on the implementation schedule as outlined in Table 1.

Table 1
Statewide Implementation Schedule of R307-XXX

Location	Rule Implementation Date
Box Elder, Cache, Davis, Salt Lake, Tooele, Utah and Weber Counties	January 1, 2016
Washington, Duchesne and Uintah Counties	January 1, 2018
Remaining portions of Utah	January 1, 2019

R307-XXX-3. Exemptions.

The requirements of R307-XXX shall not apply to:

- (1) units using a fuel other than natural gas;
- (2) units used in recreational vehicles; and
- (3) units manufactured in Utah for shipment and use outside of Utah.

R307-XXX-4. Definitions.

The following additional definitions apply to R307-XXX:

"Heat output" means the enthalpy of the working fluid output of the unit.

"Heat input" means the heat of combustion released by fuels burned in a unit based on the higher heating value of fuel. This does not include the enthalpy of incoming combustion air.

"Recreational vehicle" means a motor home, travel trailer, truck camper, or camping trailer, with or without motive power, designed for human habitation for recreational, emergency, or other occupancy.

"Natural gas-fired water heater" means a device that heats water by the combustion of natural gas to a thermostatically-controlled temperature not exceeding 210°F (99°C) for use external to the vessel at pressures not exceeding 160 psig.

R307-XXX-5. Standards.

(1) Beginning on the rule implementation date specified in Table 1 for each area of the state, no person shall sell or install in an area in which R307-XXX is applicable any natural gas-fired water heater with an emission rate exceeding the limit in Table 2. The NO_x limits are expressed in nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output.

TABLE 2
NO_x Emission Rate for Natural Gas-Fired Water Heaters

Category	Limits (ng/Joule)
Water heater up to 75,000 BTU/hr, excluding those installed in mobile homes	10
Water heater 75,001- 2,000,000 BTU/hr	14
Any tank with power assist	10
Mobile home water heater	40
Pool/spa heater less than 400,000 BTU/hr	40
Pool/spa heater 400,001-2,000,000 BTU/hr	14

(2) The water heater manufacturer shall display the model number and the NO_x emission rate of a water heater complying with this rule on the shipping carton and on the permanent rating plate of each unit.

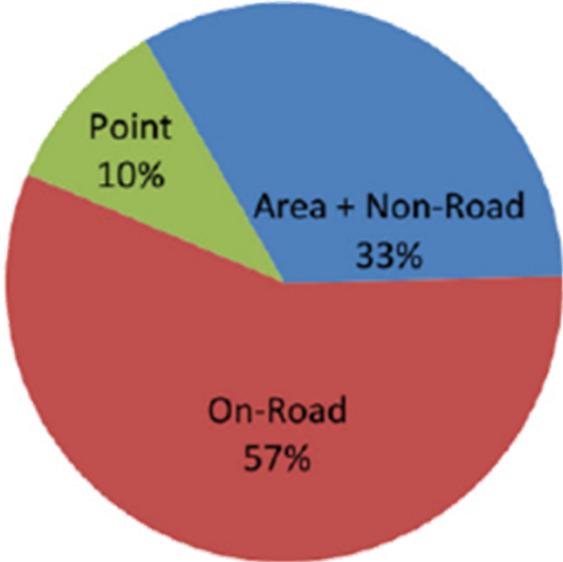
YOUR UTAH. YOUR FUTURE.

Clean Air Action Team Recommendation

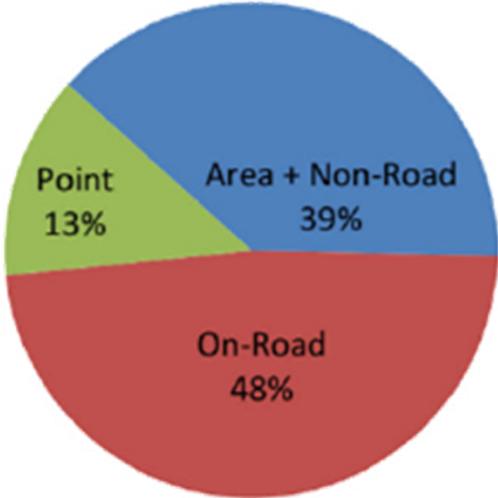
Ultra-low NOx Water Heaters

Emission Inventories

2008
PM2.5 + NOx + SO2 + VOC
Typical Winter Day in
Salt Lake, Davis, Utah, Weber Counties



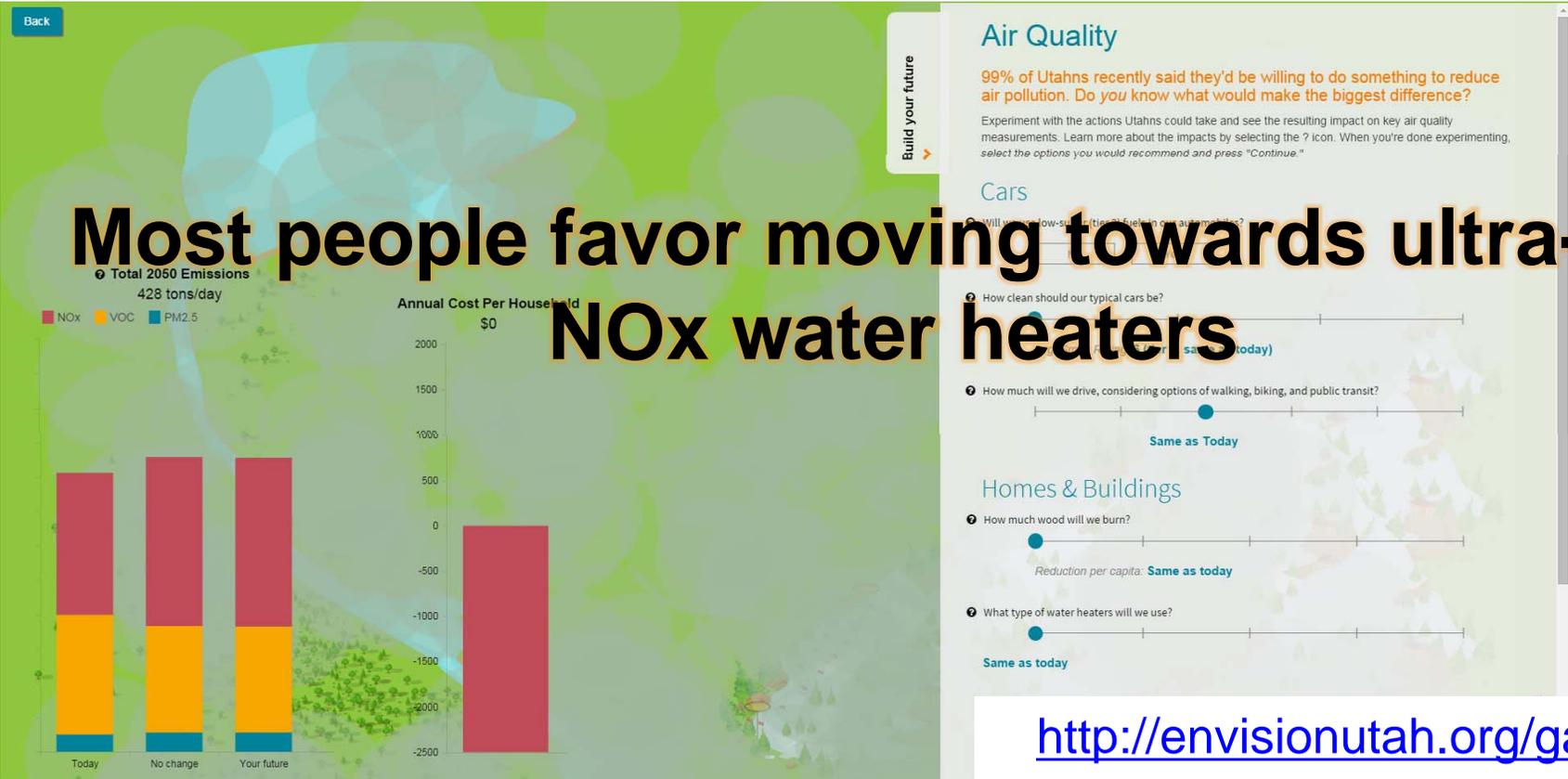
2014
PM2.5 + NOx + SO2 + VOC
Typical Winter Day in
Salt Lake, Davis, Utah, Weber Counties



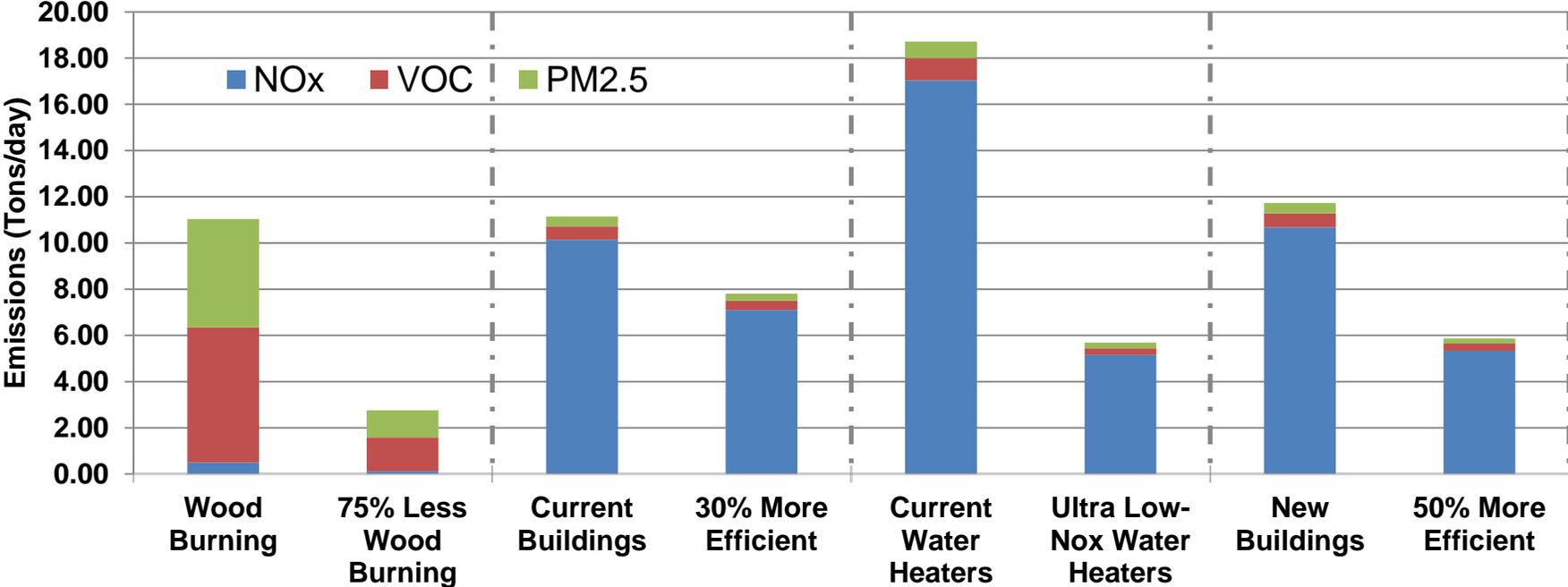
Projections

	2010 Estimates	2050 Projection
Buildings	746,609	1,532,371

Build Your Utah 2050 Web App



<http://envisionutah.org/game/#/>



- Total projected building emissions for 2050 are approximately 50 tons/day.
- With all above changes, total building emissions would be cut in half.

Cost

<p>✕ Remove</p>  <p>Whirlpool 6th Sense 40-Gallon 6-Year Tall Gas \$377.00</p> <p>Add to Cart +</p>	<p>✕ Remove</p>  <p>Whirlpool 6th Sense 40-Gallon 6-Year Tall Gas \$444.78</p> <p>Add to Cart +</p>	<p>✕ Remove</p>  <p>Whirlpool 6th Sense 40-Gallon 12-Year Tall Gas \$579.00</p> <p>Add to Cart +</p>	<p>✕ Remove</p>  <p>Whirlpool 6th Sense 40-Gallon 12-Year Ultra Low \$551.04</p> <p>Add to Cart +</p>
<p>Lo-NOx</p> <hr/> <p>333568 N40T61-343 ★★★★★ 759 reviews \$377.00 Credit Promotion</p>	<p>Ultra -low NOx</p> <hr/> <p>333578 NU40T61-403 ★★★★★ 132 reviews \$444.78 Credit Promotion</p>	<p>Lo-NOx</p> <hr/> <p>333564 N40T121-403 ★★★★★ 190 reviews \$579.00 Credit Promotion</p>	<p>Ultra -low NOx</p> <hr/> <p>333573 NU40T121-403 ★★★★★ 170 reviews \$551.04 Credit Promotion</p>

AirToxics
Compliance
Monitoring



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQA-1143-14

MEMORANDUM

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: December 4, 2014

SUBJECT: Air Toxics, Lead-Based Paint, and Asbestos (ATLAS) Section Compliance Activities – November 2014

MACT Compliance Inspections	2
Asbestos Demolition/Renovation NESHAP Inspections	54
Asbestos AHERA Inspections	48
Asbestos State Rules Only Inspections	6
Asbestos Notifications Accepted	118
Asbestos Telephone Calls Answered	418
Asbestos Individuals Certifications Approved/Disapproved	58/1
Asbestos Company Certifications/Re-Certifications	2/11
Asbestos Alternate Work Practices Approved/Disapproved	17/0
Lead-Based Paint (LBP) Inspections	16
LBP Notifications Approved	3
LBP Telephone Calls Answered	103
LBP Letters Prepared and Mailed	97
LBP Courses Reviewed/Approved	1/1
LBP Course Audits	3
LBP Individual Certifications Approved/Disapproved	7/0

LBP Firm Certifications	12
Notices of Violation Issued	0
Compliance Advisories Issued	20
Warning Letters Issued	16
Settlement Agreements Finalized	4
Penalties Agreed to:	
MB Construction	\$ 375.00
Turner's Demolition Company	\$ 1,500.00
Beaver County School District (Supplemental Environmental Project)	\$ 312.50
Tintic School District (Supplemental Environmental Project)	\$ 62.50
Total:	<u>\$ 2,250.00</u>



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQA-038-15

MEMORANDUM

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: January 7, 2015

SUBJECT: Air Toxics, Lead-Based Paint, and Asbestos (ATLAS) Section Compliance Activities – December 2014

MACT Compliance Inspections	1
Asbestos Demolition/Renovation NESHAP Inspections	54
Asbestos AHERA Inspections	71
Asbestos State Rules Only Inspections	4
Asbestos Notifications Accepted	127
Asbestos Telephone Calls Answered	385
Asbestos Individuals Certifications Approved/Disapproved	76/4
Asbestos Company Certifications/Re-Certifications	2/43
Asbestos Alternate Work Practices Approved/Disapproved	16/0
Lead-Based Paint (LBP) Inspections	8
LBP Notifications Approved	1
LBP Telephone Calls Answered	68
LBP Letters Prepared and Mailed	83
LBP Courses Reviewed/Approved	1/1
LBP Course Audits	0
LBP Individual Certifications Approved/Disapproved	20/1

LBP Firm Certifications	20
Notices of Violation Issued	0
Compliance Advisories Issued	13
Warning Letters Issued	9
Settlement Agreements Finalized	1
Penalties Agreed to:	
Rockwood Investment Group, LLC	\$3,349.86



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQC-1480-14

MEMORANDUM

TO: Air Quality Board
FROM: Bryce C. Bird, Executive Secretary
DATE: December 18, 2014
SUBJECT: Compliance Activities – November 2014

Annual Inspections Conducted:

Major.....	5
Synthetic Minor	3
Minor	18
On-Site Stack Test Audits Conducted:	11
Stack Test Report Reviews:	65
On-Site CEM Audits Conducted:	4
Emission Reports Reviewed:	9
Temporary Relocation Requests Reviewed & Approved:	4
Fugitive Dust Control Plans Reviewed & Accepted:.....	63
Open Burn Permits Issued During Fall 2014.....	0
Soil Remediation Report Reviews:.....	3
¹ Miscellaneous Inspections Conducted:.....	17
Complaints Received:	22

Breakdown Reports Received:.....	1
Compliance Actions Resulting From a Breakdown.....	0
Warning Letters Issued:	0
Notices of Violation Issued:.....	0
Compliance Advisories Issued:.....	6
Settlement Agreements Reached:	0

¹Miscellaneous inspections include, e.g., surveillance, level I inspections, VOC inspections, complaints, on-site training, dust patrol, smoke patrol, open burning, etc.



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Department of
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Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQC-074-15

MEMORANDUM

TO: Air Quality Board
FROM: Bryce C. Bird, Executive Secretary
DATE: January 14, 2015
SUBJECT: Compliance Activities –December 2014

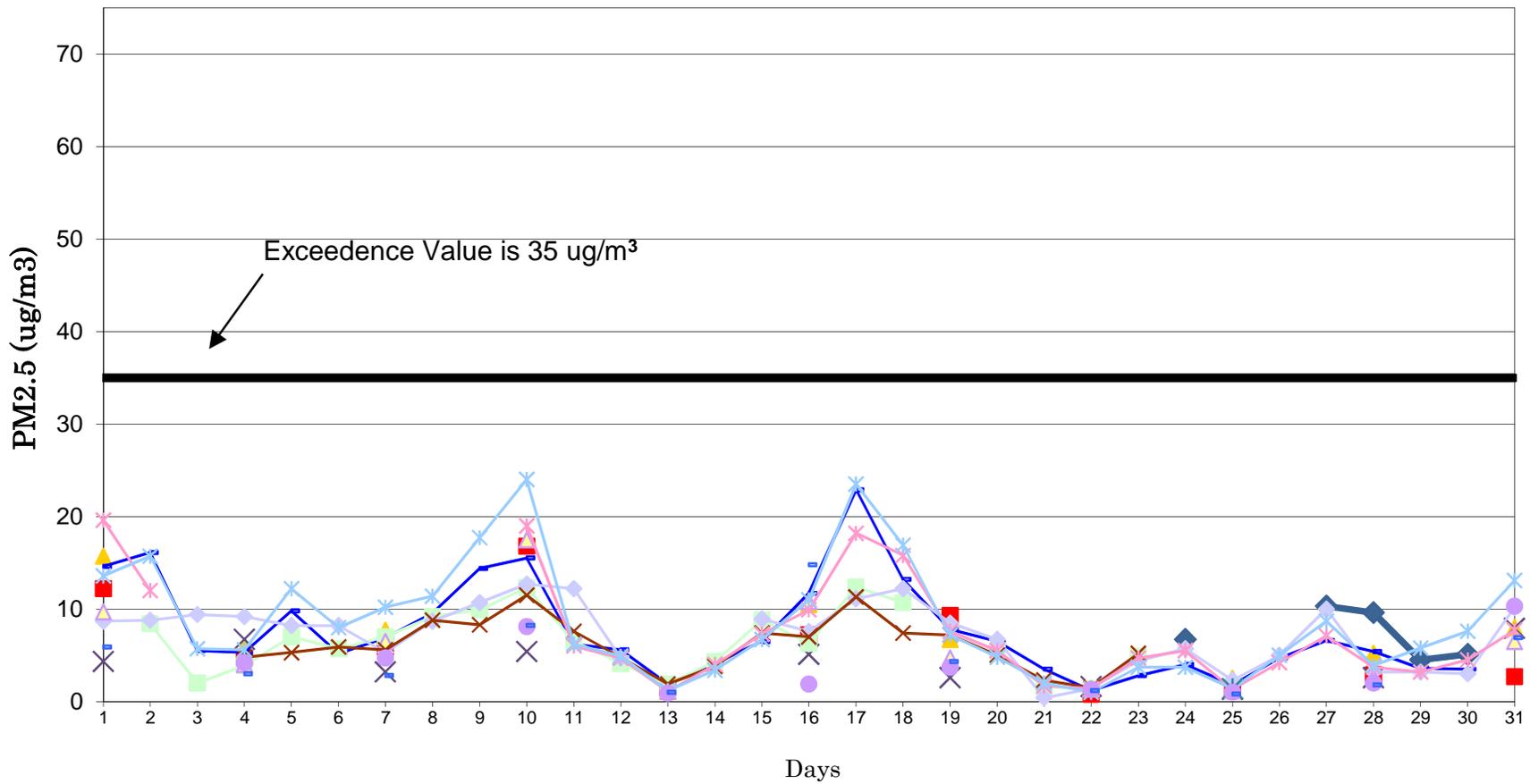
Annual Inspections Conducted:

Major.....	12
Synthetic Minor	3
Minor	18
On-Site Stack Test Audits Conducted:	4
Stack Test Report Reviews:	50
On-Site CEM Audits Conducted:	5
Emission Reports Reviewed:	6
Temporary Relocation Requests Reviewed & Approved:	6
Fugitive Dust Control Plans Reviewed & Accepted:.....	70
Soil Remediation Report Reviews:	0
¹ Miscellaneous Inspections Conducted:.....	11
Complaints Received:	25
Wood Burning Complaints	11

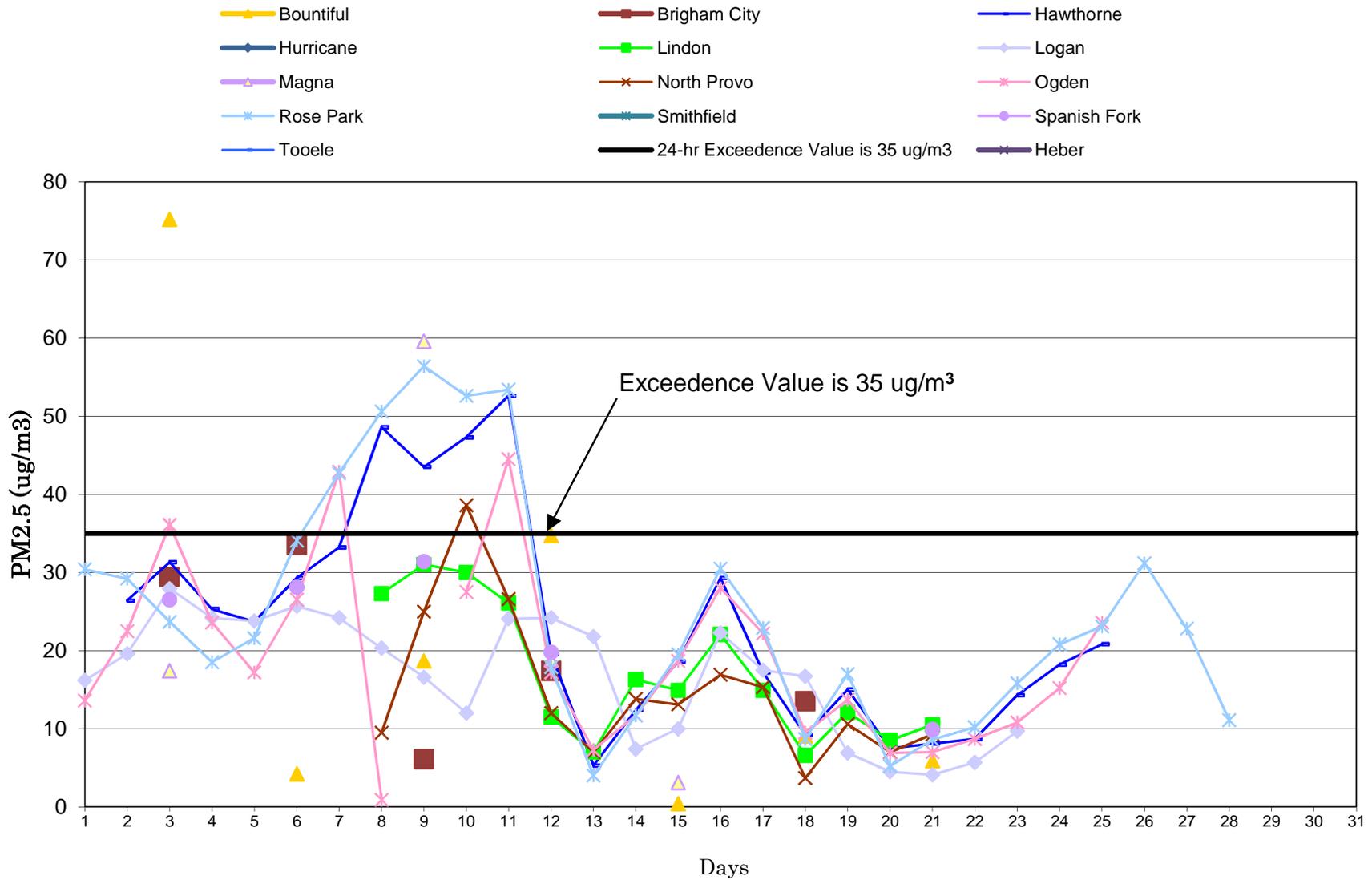
Breakdown Reports Received:.....	1
Compliance Actions Resulting From a Breakdown.....	0
Warning Letters Issued:	1
Notices of Violation Issued:.....	0
Compliance Advisories Issued:.....	5
Settlement Agreements Reached:	13
Fidelity (10)	
Cane Creek Unit 12-1	\$3,120
Cane Creek Unit 13-1	\$3,120
Cane Creek Unit 18-1	\$3,120
Cane Creek Unit 36-1	\$3,120
Cane Creek Unit 36-2	\$3,120
Cane Creek Unit 36-3	\$3,120
Cane Creek Unit 16-2	\$3,120
Cane Creek Unit 7-1	\$3,120
Three Mile Unit 12-7	\$3,120
Three Mile Unit 12-2-29-21.....	\$3,120
Stericycle	\$2,322,536
Harley Dome LLC	\$6,686
XTO Energy.....	\$2,800

¹Miscellaneous inspections include, e.g., surveillance, level I inspections, VOC inspections, complaints, on-site training, dust patrol, smoke patrol, open burning, etc.

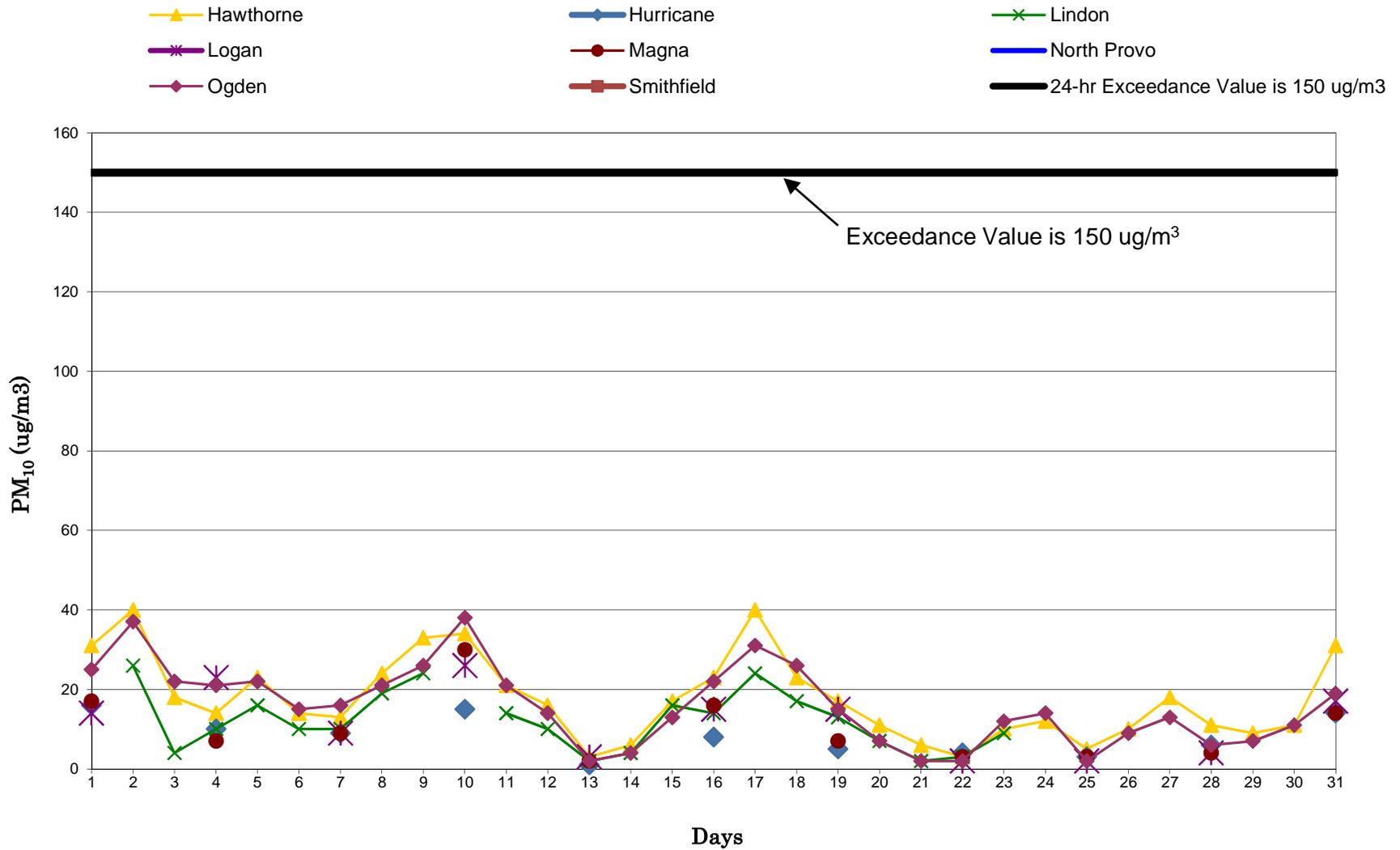
Utah 24-Hr PM2.5 Data December 2014



Utah 24-Hr PM2.5 Data January 2015

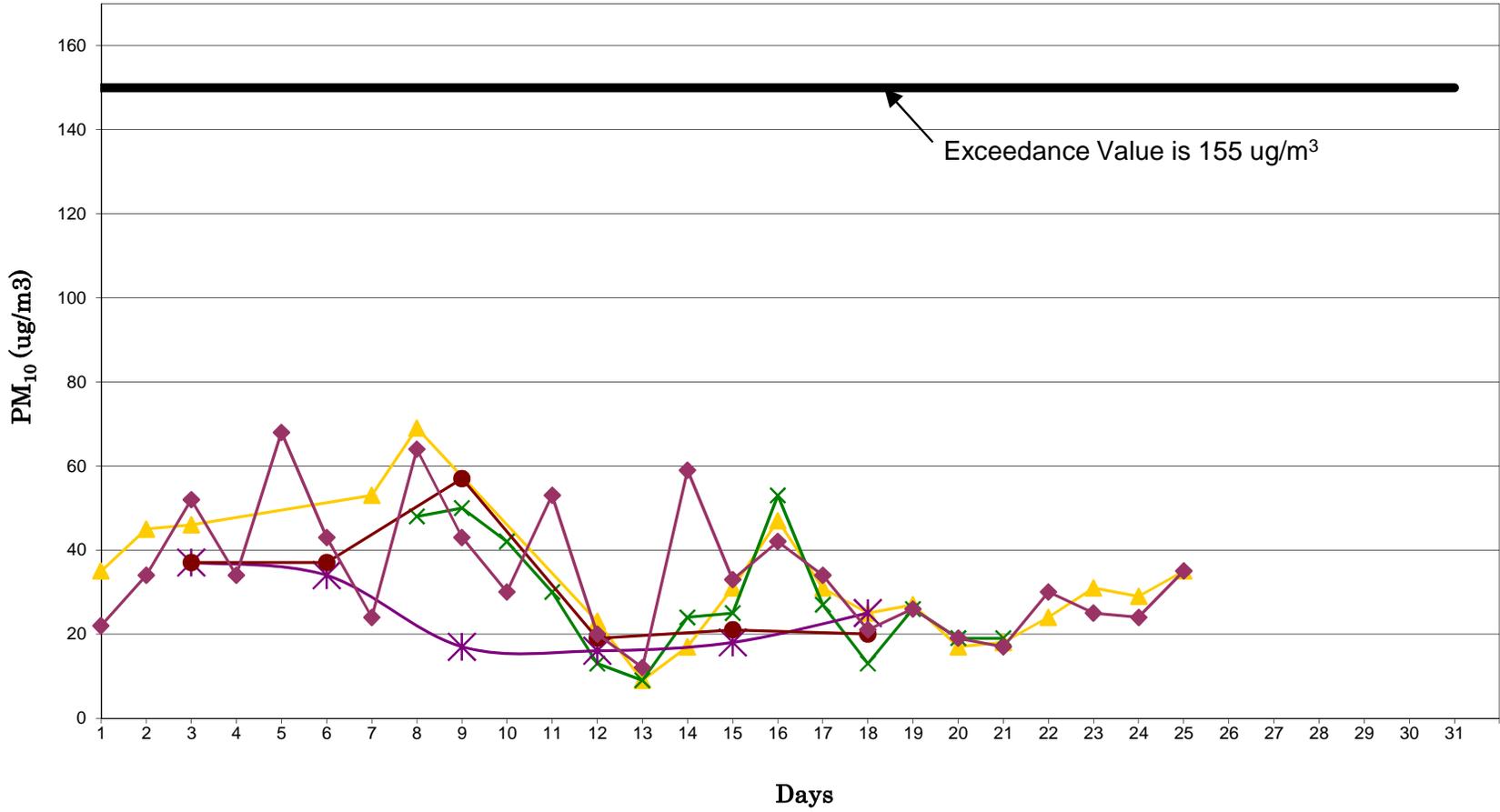


Utah 24-hr PM₁₀ Data December 2014

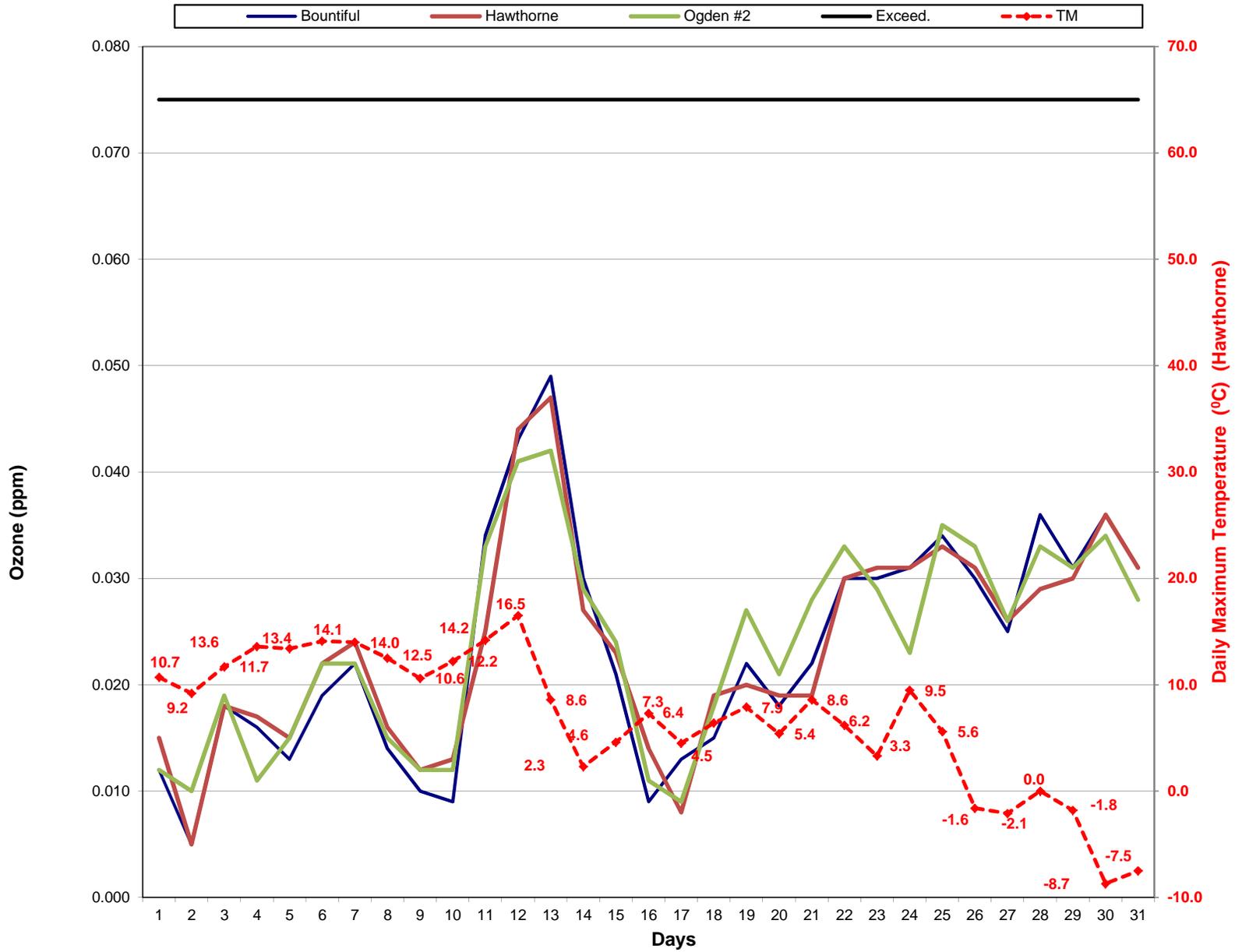


Utah 24-hr PM₁₀ Data January 2015

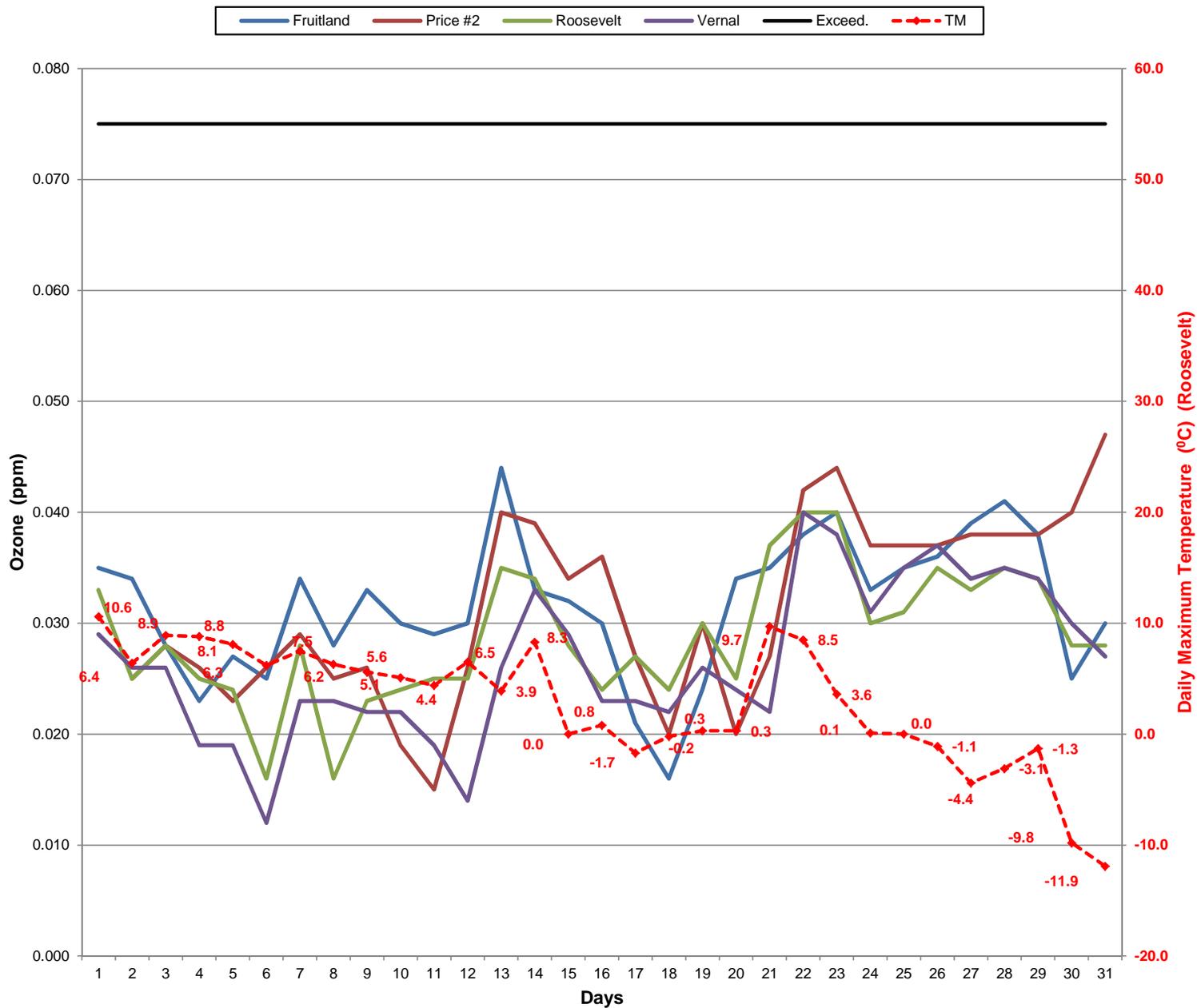
- Hawthorne
- Lindon
- Magna
- Ogden
- Hurricane
- Logan
- North Provo
- Smithfield
- 24-hr Exceedance Value is 150 ug/m³



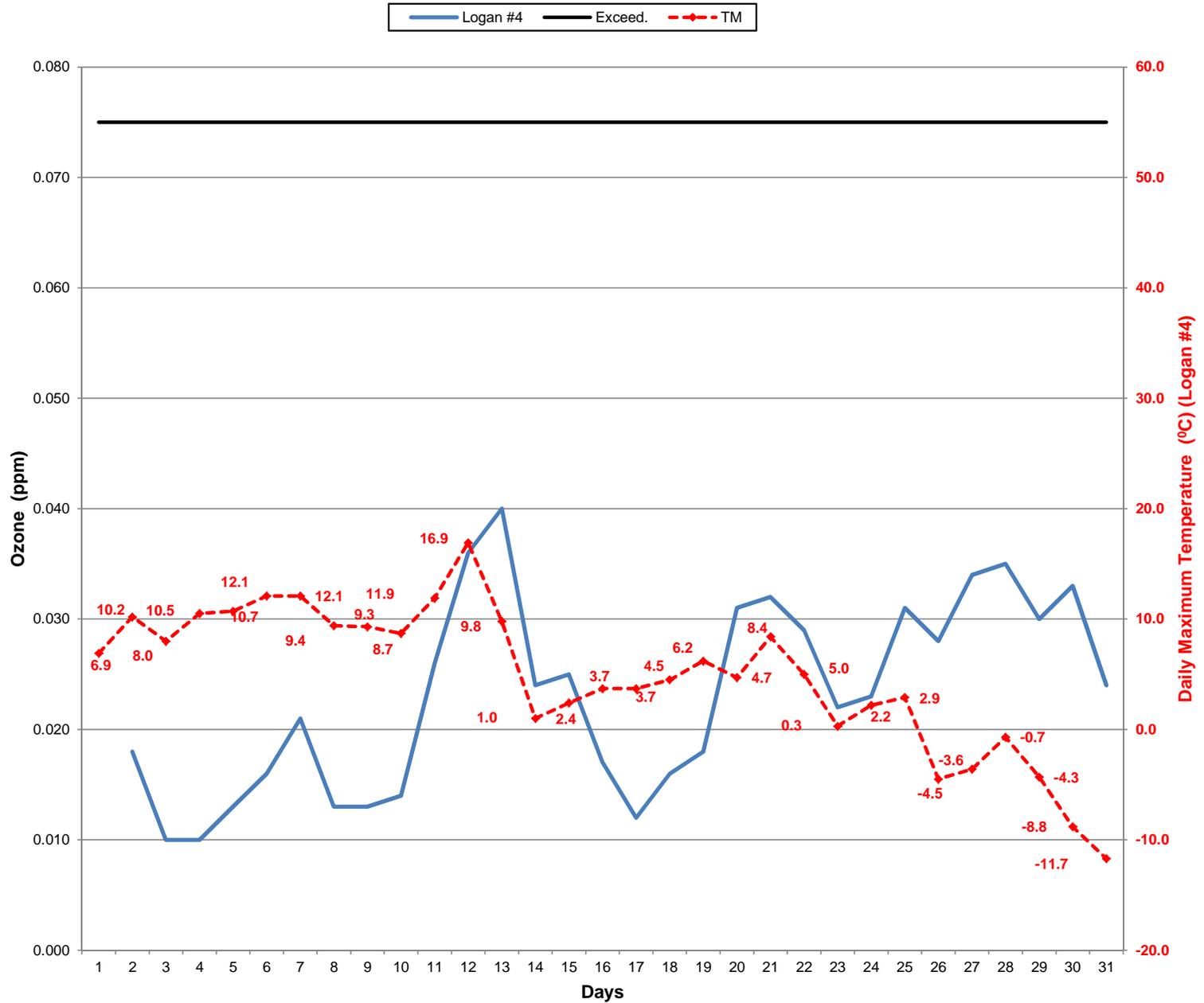
Highest 8-hr Ozone Concentration & Daily Maximum Temperature December 2014



Highest 8-hr Ozone Concentration & Daily Maximum Temperature December 2014

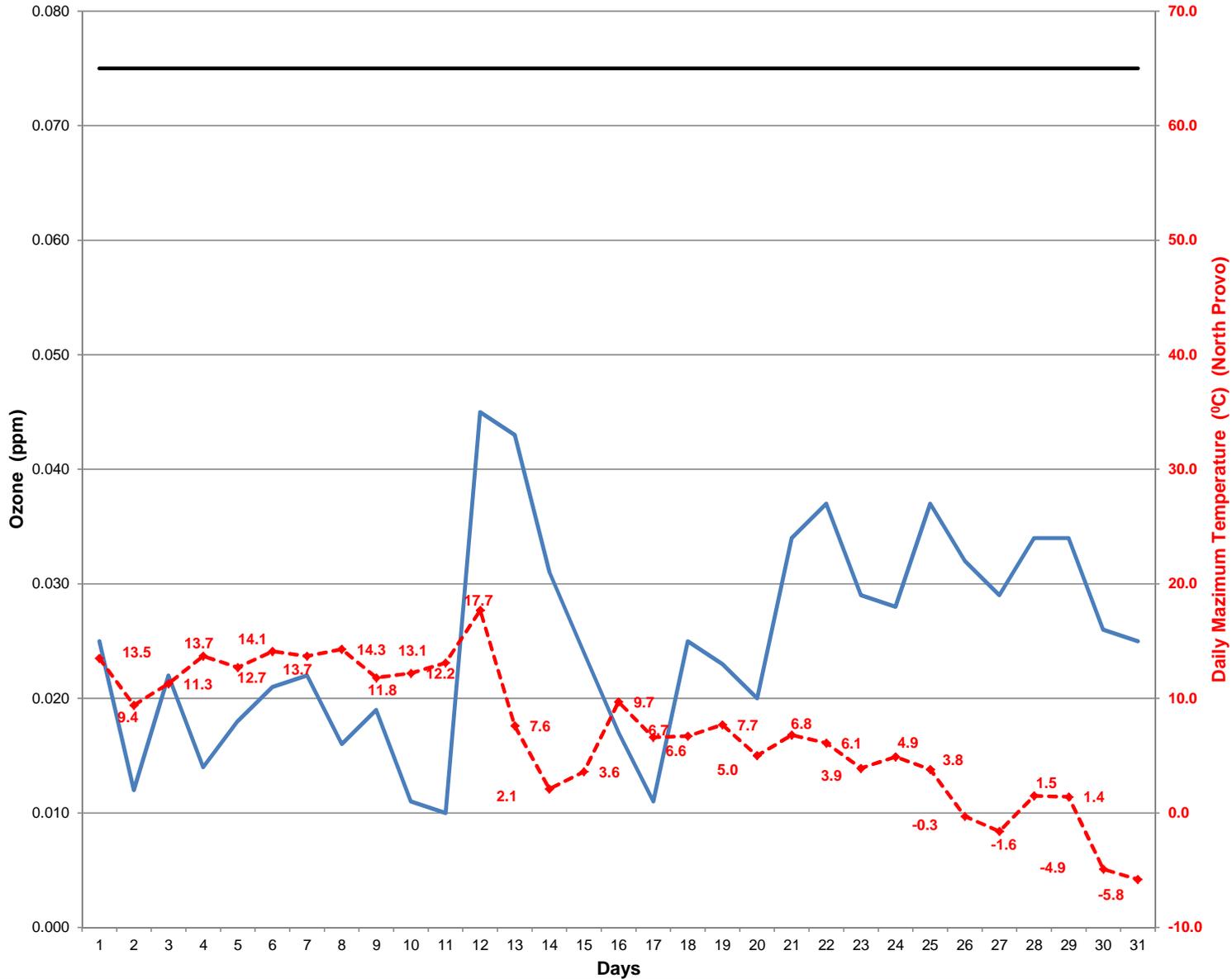


Highest 8-hr Ozone Concentration & Daily Maximum Temperature December 2014



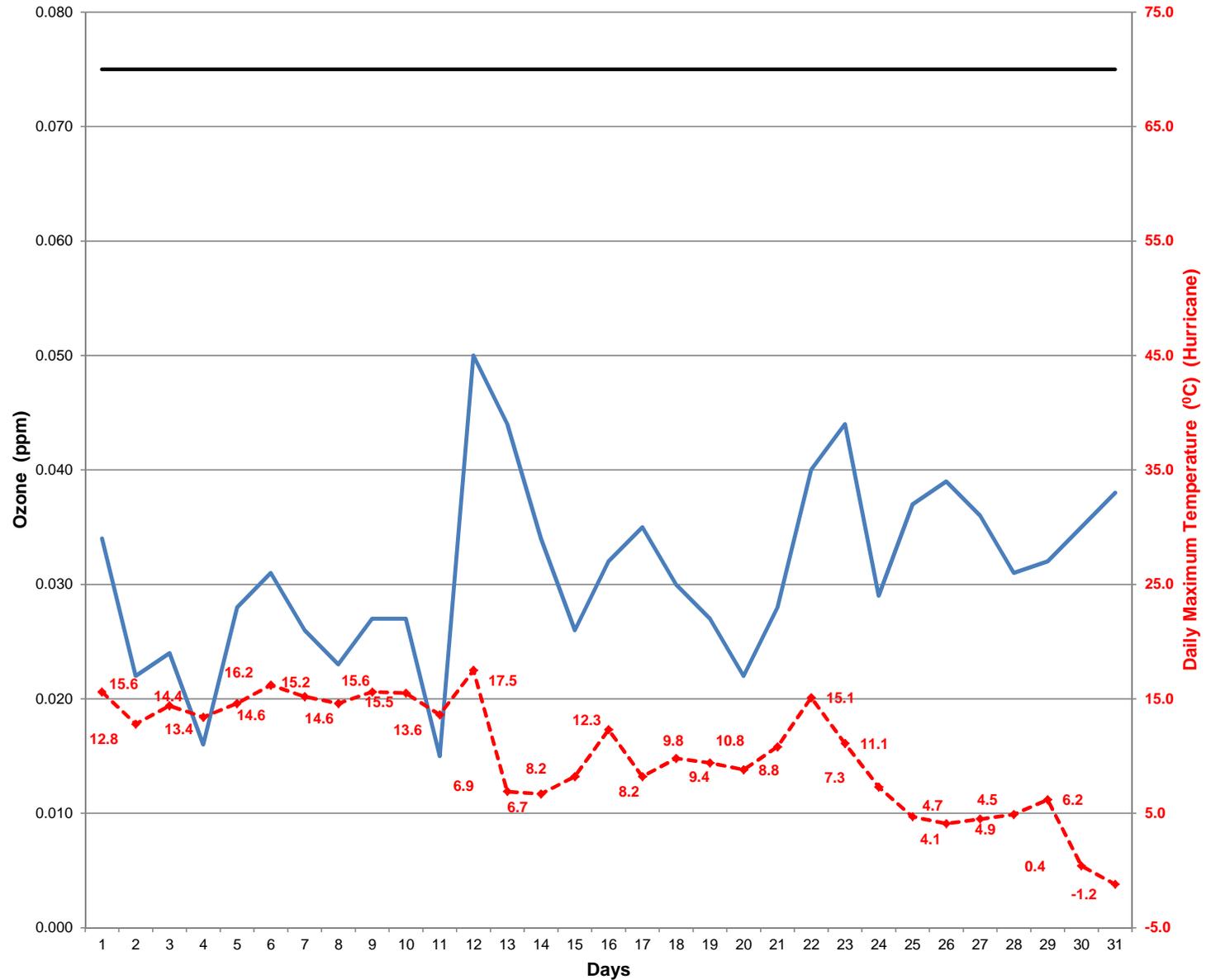
Highest 8-hr Ozone Concentration & Daily Maximum Temperature December 2014

North Provo Exceed. TM

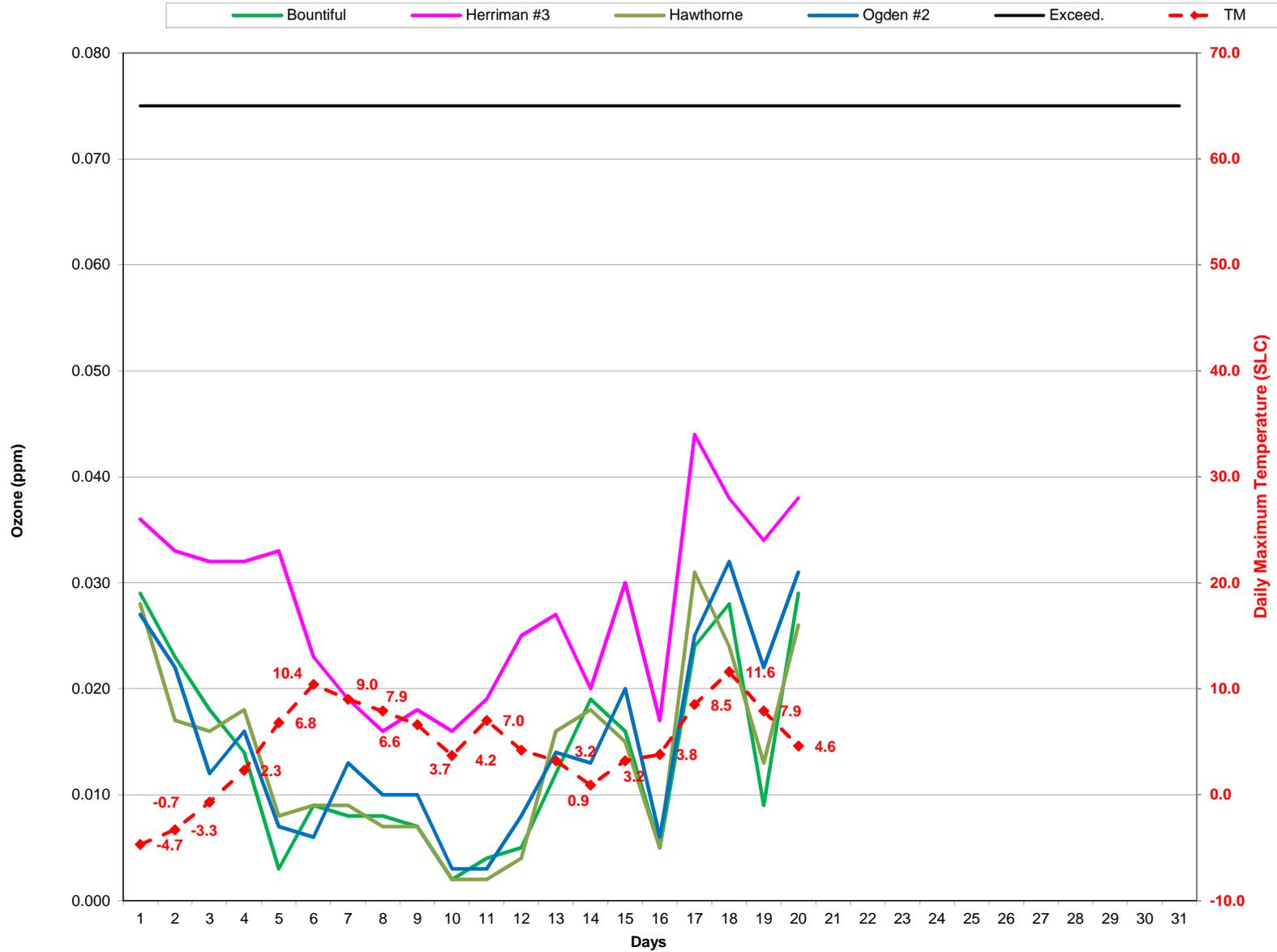


Highest 8-hr Ozone Concentration & Daily Maximum Temperature December 2014

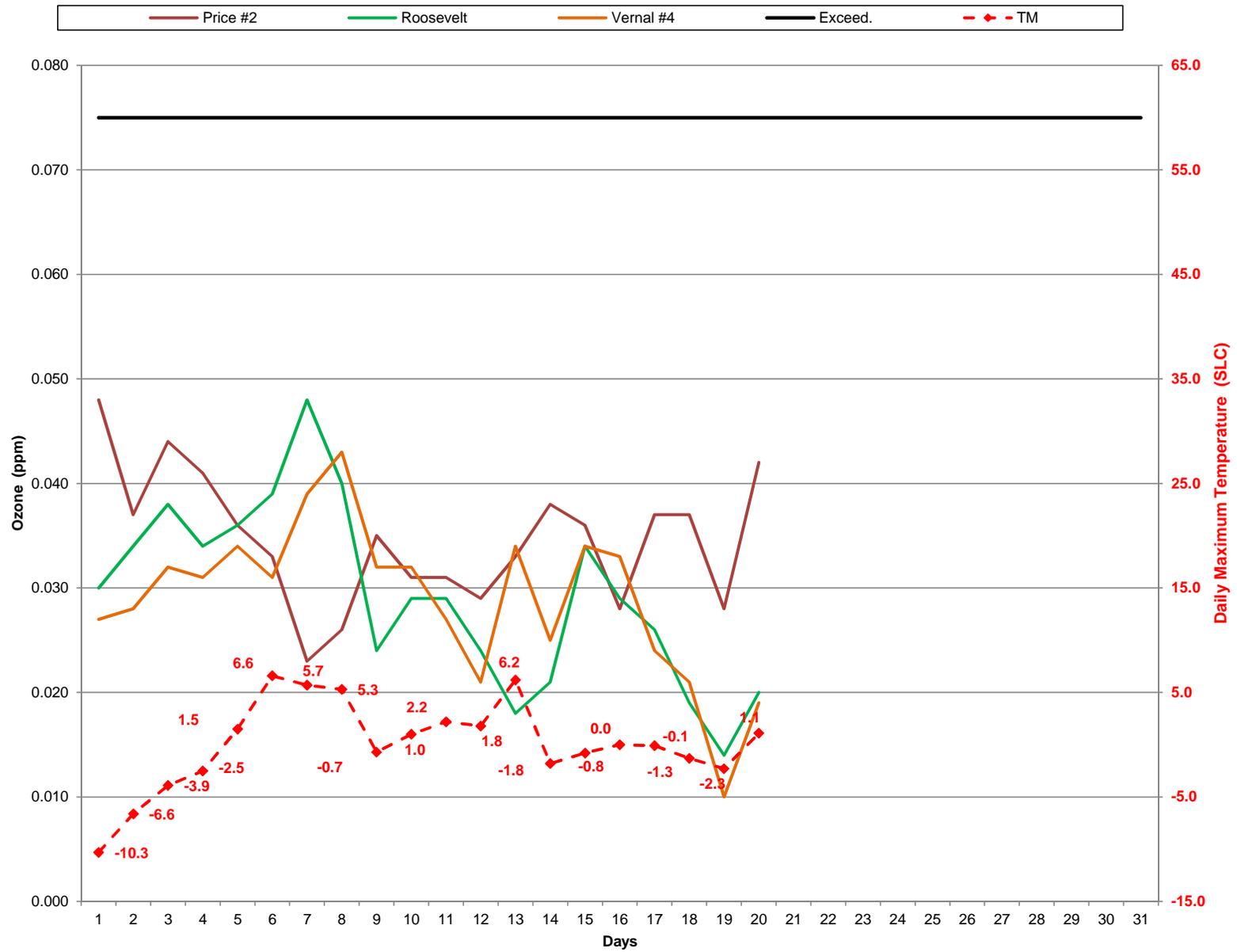
— Hurricane — Exceed. - - - TM



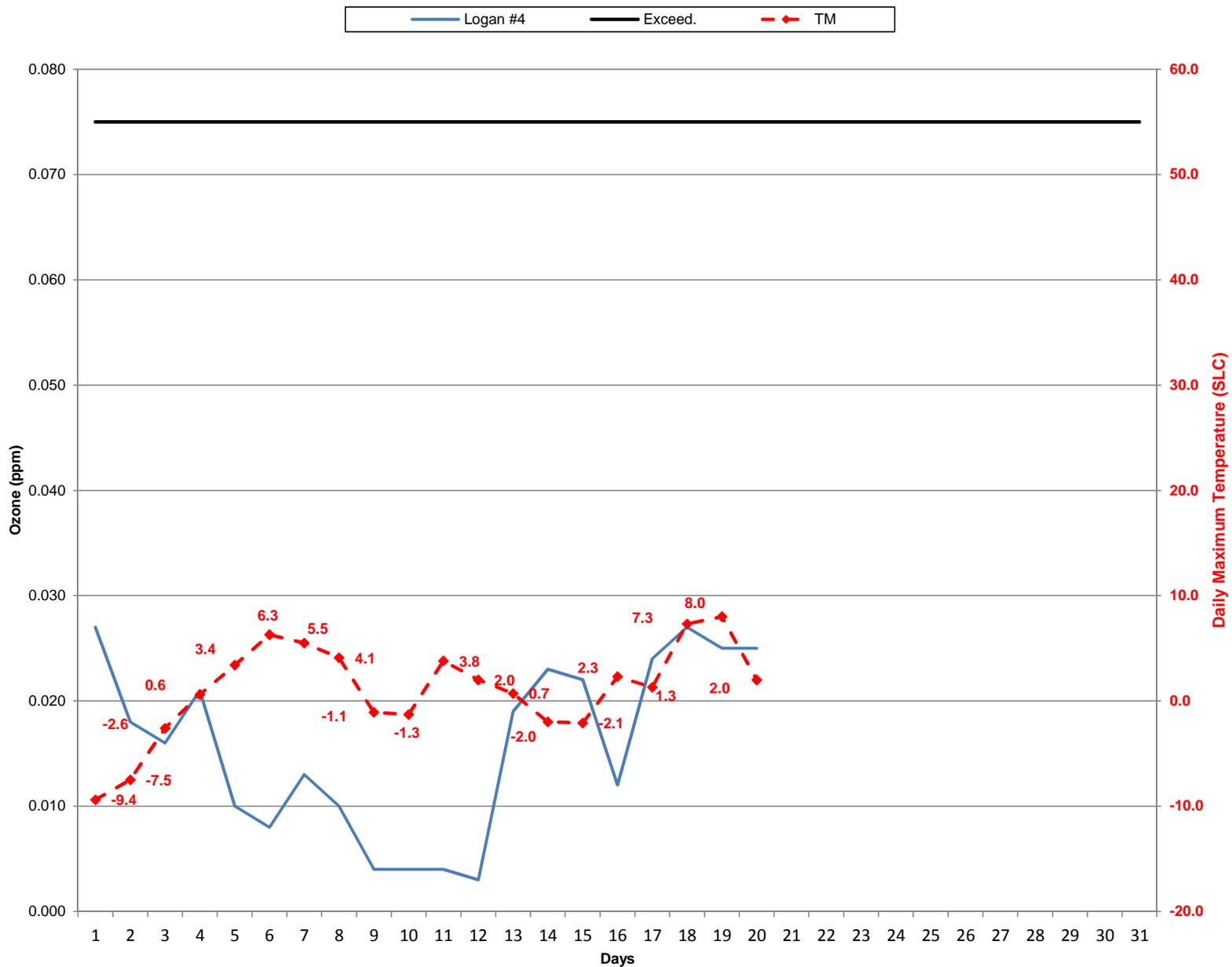
Highest 8-hr Ozone Concentration & Daily Maximum Temperature January 2015



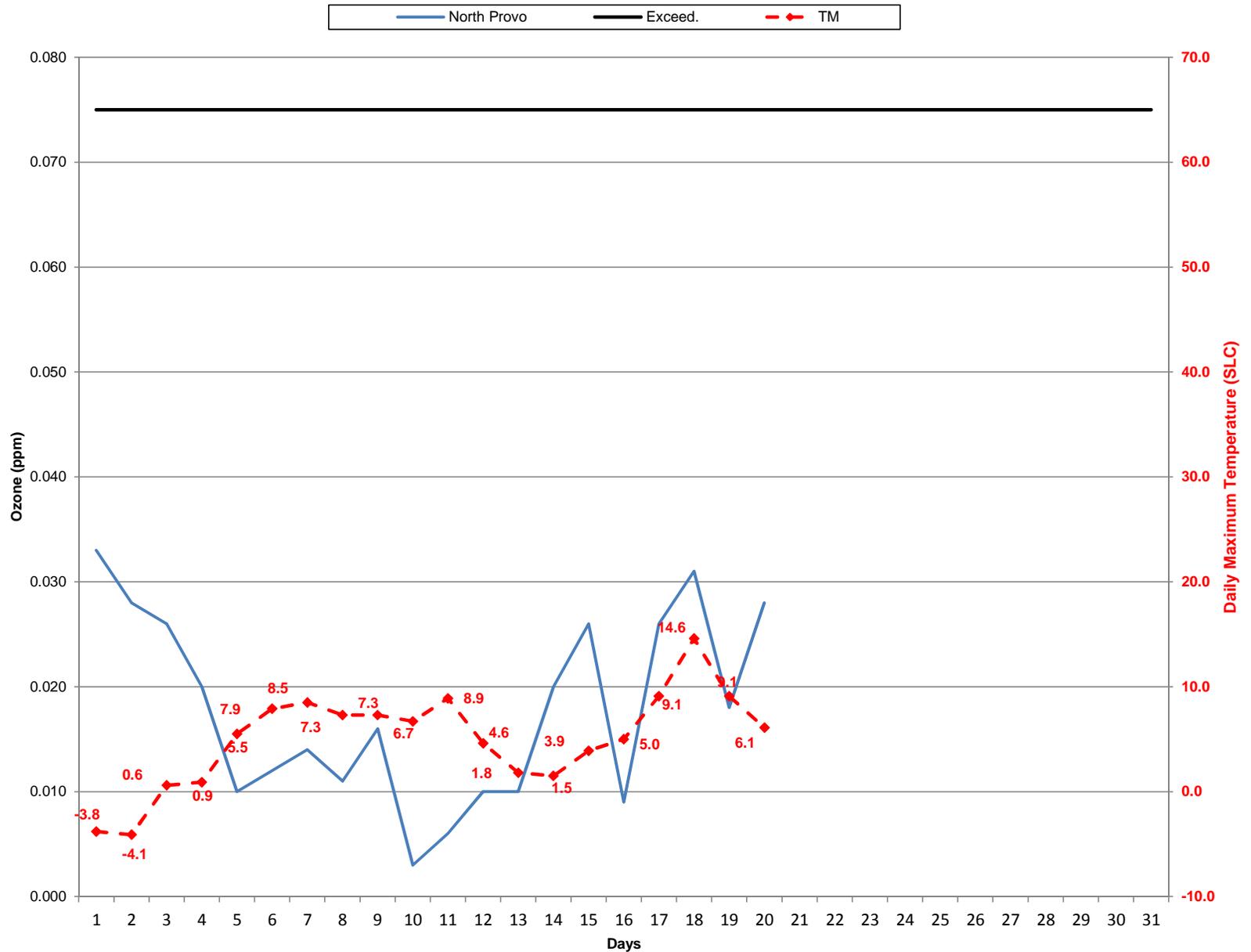
Highest 8-hr Ozone Concentration & Daily Maximum Temperature January 2015



Highest 8-hr Ozone Concentration & Daily Maximum Temperature January 2015



Highest 8-hr Ozone Concentration & Daily Maximum Temperature January 2015



Highest 8-hr Ozone Concentration & Daily Maximum Temperature January 2015

— Hurricane — Exceed. - - - TM

