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-085-13

UTAH AIR QUALITY BOARD MEETING

FINAL AGENDA

Wednesday, November 6, 2013 - 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: December 4, 2013

III. Approval of the Minutes for October 2, 2013, Board Meeting.

IV. Final Adoption: New Rule R307-401-19. General Approval Order. Presented by Mark Berger.

V. Final Adoption: Amend State Implementation Plan (SIP) Section IX, Part A.23, Control Measures for Area and Point Sources, Fine Particulate Matter, $PM_{2.5}$ SIP for Logan, UT-ID Nonattainment Area. Presented by Bill Reiss.

VI. Final Adoption: Amend State Implementation Plan Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County. Presented by Mat Carlile.

VII. Final Adoption: Amend R307-110-10. Section IX, Control Measures for Area and Point Sources, Part A, Fine Particulate Matter; and R307-110-36. Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County. Presented by Mark Berger.

VIII. Propose for Public Comment: Amend R307-335. Degreasing and Solvent Cleaning Operations. Presented by Mark Berger.

IX. Propose for Public Comment: New Rule R307-210-2. Oil and Gas Sector: New Source Performance Standards: and New Rule R307-214-3. Oil and Gas Sector: National Emission Standards for Hazardous Air Pollutants. Presented by Mark Berger.

X. Informational Items.
   A. $PM_{2.5}$ State Implementation Plan Update and Discussion. Presented by Bill Reiss.
   B. MyAir Application Presentation. Presented by John Yoon, Erin Mendenhall, and Kurt Hagmann.
   C. Healthy Environment Alliance (HEAL) of Utah's State Implementation Comments. Presented by Matt Pacenza.
   D. Air Toxics. Presented by Robert Ford.
   E. Compliance. Presented by Jay Morris and Harold Burge.
   F. Monitoring. Presented by Bo Call.
   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 Brooke Baker, Office of Human Resources at (801) 536-4412 (TDD 536-4414).

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

UTAH AIR QUALITY BOARD MEETING
October 2, 2013 – 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: Steve Sands, Kerry Kelly, Amanda Smith, Michael Smith, Karma Thomson, Tammie Lucero, Robert Paine, Craig Petersen (attendance by phone).

Excused: Kathy Van Dame

Executive Secretary: Bryce Bird

II. Date of the Next Air Quality Board Meeting: November 6, 2013

III. Approval of the Minutes for the September 4, 2013, Conference Call and September 11, 2013, Board Meeting.

- Tammie Lucero motioned to approve the September 4 and September 11, 2013, minutes as submitted. Kerry Kelly seconded. The Board approved with Craig Petersen absent.

IV. Final Adoption: R307-350. Miscellaneous Metal Parts and Products Coatings. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated on July 3, 2013, the Board proposed for public comment amendments to R307-350 to exempt military technical data orders and cured foam to clarify that the potential to emit applies to all miscellaneous metal product parts surface coatings operations and to realign the definition of coating with the federal definition found in 40 CFR Part 63. A public comment period was held from August 1 to September 3, 2013. In response to comments submitted by L3 Communications staff is recommending to exempt Department of Defense contractor's from the requirements of the rule. Staff recommends the Board adopt R307-350, Miscellaneous Metal Parts and Products Coating, as amended.

- Robert Paine moved the Board adopt to amend R307-350, Miscellaneous Metal Parts and Products Coatings. Michael Smith seconded. The Board approved with Craig Petersen absent.

V. Final Adoption: R307-401-7. Permit: New and Modified Sources. Public Notice. Presented by Mark Berger.

Mark Berger, Environmental Planning Consultant at DAQ, stated that on July 3, 2013, the Board proposed for public comment amendment to R307-401-7 to extend the current 10-day public comment period that some approval orders qualify for to a 30-day public comment requirement. We recommended this amendment to the Board because on June 12, 2013, the EPA proposed to disapprove the rule due to the current 10-day public comment requirement. During the public comment period, no comments were received and no hearing was requested. Staff recommends that the Board adopt R307-401-7, Public Notice, as proposed.

- Karma Thomson moved that the Board adopt R307-401-7, Public Notice. Robert Paine seconded. The Board approved with Craig Petersen absent.

VI. Propose for Public Comment: Amend State Implementation Plan Section IX, Control Measures for Area and Point Sources, Part H, Emissions Limits. Presented by Bill Reiss.

Bill Reiss, Environmental Engineer at DAQ, stated that in September 2013 the Board proposed two $PM_{2.5}$ nonattainment state implementation plans (SIPs) for the Salt Lake and Provo nonattainment areas. The Clean Air Act requires that those two nonattainment area plans provide for the implementation of all reasonable control measures and will include enforceable emission limitations, control measures, and schedules for compliance. SIP Section IX, Part H is an essential part of the SIP and is a collection of all emission limits that apply to the large stationary sources that are in the SIP. These limits reflect the reasonable available control technology (RACT) analysis that was completed as part of each of the two SIPs.

Craig Petersen enters the meeting by telephone.

Mr. Reiss explained Part H is made up of three sections. Part H.11 includes general requirements for all sources, including petroleum refineries. Part H.12 addresses source specific limits for sources in the Salt Lake nonattainment area, and Part H.13 includes source specific limits for the Provo nonattainment area. A summary of changes made to a few sources was noted, in addition typographical and formatting changes were made to the latest version for the Board's review. The public comment period for the Salt Lake and Provo SIPs currently runs from October 1 to 31, 2013. If proposed today, the comment period for Part H will be November 1 to 30, 2013. Staff recommends the Board propose the amended SIP Section IX, Control Measures for Area and Point Sources, Part H, Emission Limits for public comment, including the changes identified today.

In discussion, Mr. Reiss answered several questions from the Board and explained that the RACT analysis is not directly reported as part of Part H but that it is part of the technical support document. It was also recommended that Part H be reviewed in conjunction with the Salt Lake and Provo SIPs. To ensure ongoing communication between a source and DAQ, each of the sources listed in the SIP worked with an assigned staff engineer during the development process of Part H.

- Kerry Kelly moved that the Board propose for public comment amended State Implementation Plan Section IX, Control Measures for Area and Point Sources, Part H, Emissions Limits. Tammie Lucero seconded. The Board approved unanimously.

VII. Propose for Public Comment: 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 in order to submit a complete SIP submittal to the EPA, DAQ is required to show that the SIP being submitted has been incorporated in our administrative rules. R307-110-17 is the rule that presently incorporates Section IX, Part H into the administrative rules. The proposed amendment to R307-110-17 would incorporate the newly updated SIP Section IX, Part H into the rule after that section of the SIP is adopted by the Board, which we anticipate to be at the January 8, 2014, Board meeting. Staff recommends the Board propose the amended R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H, Emissions Limits, for public comment.

- Robert Paine moved that the Board propose for public comment amended R307-110-17, Section IX, Control Measures for Area and Point Sources, Part H, Emissions Limits. Michael Smith seconded. The Board approved unanimously.

Mr. Berger added that DAQ will hold two public hearings for R307-110-17 and SIP Subsections IX.H.11, 12, and 13. It is requested that a Board member act as hearing officer at each of the hearings. After discussion, the hearing officer for the Provo hearing on November 13, 2013, at 10:00 a.m. will be Michael Smith; and the hearing officer for the Salt Lake City hearing on November 21, 2013, at 2:00 p.m. will be Karma Thomson.

VIII. Informational Items.

A. Toxicity of Wood Smoke Presentation. Presented by Brian Moench.

Dr. Brian Moench, President of Utah Physician's for a Healthy Environment (UPHE), and Dr. Carl Ingwell, President of the U Student's Clean Air Network, presented the Board with information in support of their request to phase out recreational or non-essential wood burning and other solid fuel burning in nonattainment areas on a year-round basis. They highlighted research findings that found wood smoke is a large contributor to individual and community pollution exposure and that it is an extremely toxic public health hazard. In closing, UPHE requests the Board endorse proposals for state and local laws that would make it illegal to burn solid fuel in nonattainment areas year-round or possibly provide a subsidy for people currently dependent on solid fuel for heat and with limited income.

In discussion, Mr. Bird noted that currently there are 230 residences registered with a solid fuel burning device as a sole source of heat for their residence. UPHE was informed that the DAQ has posted a web page of potential rules and programs being researched and developed and one of the proposed rules is a wood stove certification during a real estate transfer. The purpose of the rule would be to ensure and verify that older emitting wood stoves are removed from a residence. It was recommended that UPHE join with DAQ in the process of the development of such a rule.

B. Air Toxics. Presented by Robert Ford.

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

D. Monitoring. Presented by Kimberly Kreykes.

Kimberly Kreykes, Environmental Planning Consultant at DAQ, updated the Board on monitoring data and also noted that Salt Lake County and the Uintah Basin are still measuring nonattainment of the ozone standard. The wood burn forecasts begin November 1 and a brief explanation was given of the process of calling a voluntary or mandatory no-burn. It was also explained that an event is usually not flagged exceptional unless it exceeds the standard. An event could be flagged as informational so that if the standard was lowered below the event in question an exceptional event report could be filed for that event.

E. Other Items to be Brought Before the Board.

Meeting adjourned at 2:39 p.m.

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-090-13

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Colleen Delaney, Environmental Scientist

DATE: October 24, 2013

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

On July 3, 2013, the Board proposed for comment a new rule, R307-401-19, that would provide an alternative to the normal approval order process called a general approval order (GAO). A GAO could be developed for a category of similar types of sources and would go through the normal public review process before being issued. The GAO would need to meet all requirements of the existing rule, including application of best available control technology (BACT) and a representative impact analysis. Once the GAO is adopted, a new or modified source could apply to be covered by the GAO if it met the criteria specified in the GAO. The Division of Air Quality (DAQ) would maintain a record of all sources covered under the GAO that would be available for public review. DAQ would revise GAOs as needed to reflect changing BACT for the specified equipment. General permits have been used successfully in other states, and EPA is currently developing a general permit for oil and gas sources in Indian Country.

A public comment period was held from August 1 to September 3, 2013, and no public hearing was requested. Three comment letters were received. A summary of the comments and the staff response to comments are attached. Several changes are recommended to the proposed rule in response to comments to clarify that the GAO process would be limited to smaller sources that do not require a case-by-case impact analysis under current rules for individual approval orders.

Staff Recommendation: Staff recommends the Board adopt new rule R307-401-19, General Approval Order, as amended.

Summary of Comments

1. Comment: One commenter strongly supports the alternate General Approval Order (GAO) authority for the Division, as it will likely reduce the administrative burden on both operators and the Division and expedite the permitting process.

   Response: DAQ staff agrees that the GAO process could provide significant efficiencies for the Division and for the applicant. DAQ's engineering expertise is underutilized when performing a case-by-case review of similar small sources that could be better addressed as a category.

2. Comment: The reference to rule 307-401-8 encompasses a vast set of requirements and cross referenced requirements that may or may not apply to the permitting of oil & gas operations. Prior to and during development of any GAO that intends to promulgate oil & gas requirements, we would like to ensure that we are given the opportunity to engage in extensive dialog with the Department regarding what specific subset of these provisions are appropriate.

   Response: DAQ staff agrees that the requirements referenced in R307-401-8 are extensive and not all provisions will apply to a specific source category. DAQ intends to develop any GAO through an open process to ensure that the appropriate provisions are addressed.

3. Comment: We are concerned that there is no indication of when an application for a general approval order will be required to be submitted to the Division. We feel that it is in our mutual best interests to file an application that accurately reflects the estimated emissions from an affect facility. The only way to accomplish this is to file an application after a facility has been operating and data have been gathered. We encourage the Division to take this into consideration by allowing for submittal of applications within a certain period of time after emissions begin. We encourage the Division to take this concern into consideration and take the actions necessary in both R307-401-19 and the general approval order itself to address this issue. We suggest the following language for R307-401-19-4b:

   > (b) The owner or operator shall submit the application on forms provided by the director in lieu of the notice of intent requirements in R307-401-5 for all equipment covered by the general approval order within the time specified in the source specific general approval order.

   Response: Utah's rule and statute require an approval order (AO) prior to initiation of construction, modification or relocation of a source. This long-standing provision is included in Utah's federally-approved state implementation plan (SIP) and has been an important provision to ensure that new sources of air pollution are adequately controlled. There are circumstances where an approval order requires modification after a source has been constructed and additional information about the operation of the source is available. DAQ can address these circumstances either through a revised AO or through conditions that are included in the AO to address alternate scenarios. DAQ intends to use this same approach for a GAO, possibly including different requirements that would apply after operating data have been collected for the source, if necessary for a specific GAO.

4. Comment: It does not appear as though there is any indication of timing or deadlines for GAO approval or denial. We suggest the following language to replace the current text in R307-401-19-4d:

   > Construction may begin any time after receipt of written notification from the director that there are no objections or 45 days after receipt by the director of the application, whichever occurs first.

Response: A GAO would be subject to the same general conditions as an individual approval order. R307-401-6 establishes the review period for an approval order under R307-401. In practice, DAQ anticipates that a GAO application will be acted upon quickly because there will be a standard application form and much of the analysis will have been completed upfront when the GAO was developed.

5. Comment: We also seek clarification on language in R307-401-19-6a(ii), which applies to revocation and exclusions. The current language states that a notice of intent or individual approval orders may be required if "the director determines that the application for the general approval order did not contain all necessary information to evaluate applicability under the general approval order." We are concerned this language will cause projects with incomplete applications to become permanently ineligible for a GAO. If it was not the Division's intention to disqualify incomplete applications, we suggest striking the provision altogether.

   Response: The language in R307-19-6(a)(ii) is not intended to permanently disqualify a source from coverage under a GAO. If an application was incomplete, DAQ would follow our usual practice by contacting the source and requesting additional information. After the requested information was submitted, the source could then be covered under the GAO. If a GAO is issued to a source and DAQ later determines that the applicant did not include relevant information in the application that would have disqualified the source for coverage under a GAO, the Director could require the source to submit a NOI and receive an individual approval order.

6. Comment: To enhance transparency a proposed GAO could be brought before the Board in a similar manner to rulemaking – proposal, receive comments, final approval. One year after adoption the Board should receive a public report and determine a schedule for future reports. At the 5-year anniversary the GAO should go out to comment again along with modifications as needed.

   Response: The current process outlined in the rule provides adequate opportunity for public review of a proposed GAO. In addition, DAQ intends to develop any new GAO in an open process to ensure that it will meet the requirements of the rule. DAQ is developing a potential GAO for the oil and gas industry and has begun this process through open public meetings. DAQ intends to seek additional public comment in this draft rule prior to beginning the official public review process that is described in the rule. A GAO could be developed for different types of sources that would have different degrees of public interest.

7. Comment: The list maintained by the director under R307-401-19(5)(c) should include a searchable database. An interested citizen could track issued GAOs by company name, location, processes and emissions permitted, controls required, recordkeeping and reporting requirements, and compliance effort, that is, schedule and type of inspections, advisories and violations.

   Response: DAQ does not currently have the resources available to develop the database envisioned by the commenter. A list would be maintained of all sources covered under a specific GAO. In addition, a copy of the GAO would be included in the file for each applicable source to facilitate inspections and compliance determinations.

8. Comment: The development of a GAO should involve internal collaboration within DAQ. Records of these regular meetings, along with documentation of relevant research and identified decision points and decision makers should reside in a docket available online, for review and transparency. Internal guidance developed by the workgroup should be in an accessible docket, along with public comment received on the GAO.

Response: DAQ has internal processes in place to ensure internal collaboration. A proposed GAO will contain an engineering review to support the proposal, along with all necessary supporting documentation. DAQ's permitting program provides a large amount of information on-line including application instructions, internal guidance memorandum, and permits that have been issued.

9. Comment: A GAO would violate Section II of the SIP which mandates that the director require source-specific information from any given new or modified source and that the director base the decision on whether the new or modified source meets the applicable requirements on a source-specific basis.

   Response: Section II of the SIP provides an overview of Utah's new source review program. The SIP was adopted by the Board and is implemented through Utah's rules that are also adopted by the Board. The language in Section II of the SIP does not prevent the Board from modifying Utah's permitting rules to improve efficiency, nor does the language in Section II of the SIP prevent EPA from approving changes to Utah's rules that are adopted by the Board.

   A GAO will still require source-specific information and will still require the Director to determine whether the source meets the applicable requirements. However, for certain categories of small sources that are similar or for specific types of equipment the documentation of best achievable control technology (BACT), impact analysis, and siting requirements will be performed by DAQ up front rather than requiring each source in the category to provide this information individually.

10. Comment: Section II of the SIP requires the director to provide a 30-day public comment period.

    Response: The proposed rule requires a 30-day public comment period before a GAO is issued.

11. Comment: Section II of the SIP states "Upon receipt of all information necessary to conduct the plan review, emission data from the proposed source will be calculated and diffusion modeling conducted to predict the effect of the emissions from the proposed source on the air quality in the area of the proposed source. The necessary existence of different background concentrations, different locations, different surrounding sources, different topographical and meteorological conditions, and other different source and location specific circumstances will mean that modeling must be conducted on a source-by-source basis in order to obtain accurate information on the impacts of a source.

    Response: A GAO must meet all applicable requirements of R307-401-8 including the provisions in R307-410 that establishes the emission impact analysis requirements for new or modified sources. Sources above certain thresholds for criteria pollutants in R307-410-4 are required to submit an impact analysis as specified in the rule. The proposal has been modified to clarify that a source that is subject to the modeling requirements of R307-410-4 is not eligible for a GAO unless an impact analysis that meets the requirements of R307-410-4 has been conducted. DAQ currently evaluates sources below the thresholds in R307-401-4 through internal modeling using conservative assumptions or through engineering judgment. This same approach would be used for a GAO. The GAO may contain siting requirements such as stack heights, size limitations for equipment, distance to property boundaries, or other restrictions as needed. The impact analysis requirements would therefore be the same for sources under a GAO as for similar sources that would apply for an individual approval order.

    A GAO must also meet the provisions in R307-410-5 that address the ambient air impact of hazardous air pollutants. As described above, the GAO may require siting restrictions, stack height requirements, and other limiting factors identified to ensure that the requirements of R307-410-5 are addressed. The proposed GAO rule has been modified to state that a source that requires additional impact analysis for hazardous air pollutant s (HAPs) as described in R307-410-5(1)(c)(ii) or (iii) is not eligible for a GAO.

12. Comment: The proposed GAO violates Section VIII.D of the SIP – Prevention of Significant Deterioration, Permitting Requirements for New and Modified Sources that requires an impact analysis to address NAAQS, increment, visibility, and air quality related values.

    Response: The proposed rule has been modified to clarify that a major source or major modification as defined in R307-405 is not eligible for coverage under a GAO. The prevention of significant deterioration (PSD) review requirements for major sources would therefore not be applicable.

13. Comment: It is also impossible that any given GAO will comply with BACT, case-by-case MACT, or LAER requirements.

    Response: BACT: When a GAO is adopted DAQ will determine BACT for the category of sources covered by the GAO. DAQ will continue to issue individual approval orders to sources that do not qualify for the GAO and will therefore keep abreast of what is current BACT and will modify the GAO when BACT changes. In addition, DAQ intends to review all GAOs on a regular basis to ensure that all requirements are current.

    Case-by-case MACT: On rare occasions EPA does not adopt maximum achievable control technology (MACT) standards as required under the Clean Air Act (CAA), and a case-by-case MACT review fills in that gap. In the unlikely case that a case-by-case MACT review is required for a minor source covered by a GAO, DAQ could either do a MACT determination for the category of sources covered by a GAO in a similar manner to the BACT review, or could use the provision in the rule 401-19(6)(a) to require the source to submit a notice of intent.

    LAER: The proposed rule has been modified to clarify that a major source or major modification as defined in R307-403 is not eligible for coverage under a GAO. The requirement to apply lowest achievable emissions reduction (LAER) would therefore not be applicable.

14. Comment: The proposed GAO could possibly protect local populations, including workers, from harmful levels of HAPs.

    Response: As required by R307-401-19(2) a GAO must meet all applicable requirements of R307-401-8, including the provisions in R307-410-5 that address the ambient air impact of hazardous air pollutants.

15. Comment: No GAO should apply in a nonattainment area.

    Response: Each GAO would be required to meet the requirements of R307-401-8, including the national ambient air quality standards (NAAQS). The GAO would be developed based on the criteria that are already used for individual sources, including those in nonattainment areas. In nonattainment areas with an existing SIP the impact of minor source growth is already accounted for in the attainment demonstration and therefore the criteria established in the SIP would also be applicable to any source subject to a GAO. The proposed rule has been modified to clarify that any source subject to the minor source PM_{10} offset requirements in R307-401-5 or the ozone offset requirements in R307-420 are not eligible for coverage under a GAO. As described earlier, major sources and major modifications as defined in R307-403 are also not eligible for coverage under a GAO. In nonattainment areas where a SIP has not yet been developed, minor source growth is not typically a significant concern during the 3-year period required to develop a SIP. DAQ typically relies on the stringent BACT requirement to ensure that all new minor sources are well-controlled while focusing efforts on reductions from existing sources through the attainment strategy. If new sources are not allowed to construct in a

nonattainment area it would have the unintended effect of preventing emission reductions due to normal business practices as new, more efficient, and less-polluting sources replace existing sources. However, if an area is experiencing an unusual amount of minor source growth, additional analyses are required to ensure that new minor sources are not causing or contributing to a violation of the NAAQS.

16. Comment: Detailed and robust air quality impact analysis must be completed based on a worst case scenario – namely that the maximum number of GAOs are applied for and authorized in the areas most prone to violations – to ensure that both individually and cumulatively any GAO projects and non-GAO projects will not cause or contribute to a violation of the NAAQS or increment.

    Response: Each GAO would be required to meet the requirements of R307-401-8, including the NAAQS. The impact analysis will vary depending on the size and nature of the GAO. It is not reasonable to base this analysis on a worst-case scenario that is unlikely to ever occur. Instead, the impact analysis would be based on reasonable assumptions regarding the number and location of sources that may be covered by the GAO. If necessary, R307-401-19 provides additional protections to address unusual circumstances. The Director must approve the application of each new source before it can be covered under a GAO. In addition, language has been added to R307-401-19(6) to clarify that the Director may require a source to submit a notice of intent and receive an individual AO if the source would cause a violation of the NAAQS.

17. Comment: Any non-GAO projects must include modeling of the same, worst case scenario for any GAO that has the potential to impact the air quality analysis related to the non-GAO projects.

    Response: It is not reasonable to base the impact analysis for individual sources on a worst-case scenario that is unlikely to ever occur.

18. Comment: Any GAO must protect the public from HAPs and model concentrations of HAPs at a local, and where appropriate, regional level.

    Response: As required by R307-401-19(2) a GAO must meet all applicable requirements of R307-401-8, including the provisions in R307-410-5 that address the ambient air impact of hazardous air pollutants. DAQ will prepare an impact analysis for any new GAO that will meet the requirements of R307-410 in the same manner that is currently required for individual sources. This impact analysis may require siting restrictions, stack height requirements, and other limiting factors identified through the impact analysis.

19. Comment: The duration of any GAO must be very short – 6 or fewer months to allow for new BACT analyses, impact analyses, and to accommodate the need to involve the public.

    Response: When a GAO is adopted, DAQ will determine BACT for the category of sources covered by the GAO. DAQ will continue to issue individual approval orders to sources that do not qualify for the GAO and will therefore keep abreast of what is current BACT and will modify the GAO when BACT changes. In addition, DAQ intends to review all GAOs on a regular basis to ensure that all requirements are current. DAQ will evaluate any information submitted by the public to determine whether any changes are required to a GAO.

20. Comment: Any GAO must apply to a very narrow geographic area to ensure that proper modeling and analysis can be done.

    Response: As required by R307-401-19(2) a GAO must meet all applicable requirements of R307-401-8, including the provisions in R307-410 that address modeling requirements for the NAAQS and

hazardous air pollutants. DAQ will prepare an impact analysis for any new GAO that will meet the requirements of R307-410 in the same manner that is currently required for individual sources. This impact analysis may require siting restrictions, stack height requirements, and other limiting factors identified through the impact analysis.

21. Comment: Any GAO must include enforceable restrictions on the number of facilities that can qualify for the particular general permit to ensure that proper modeling analysis can be done and to guarantee compliance with the NAAQS and increment.

    Response: DAQ does not place any restrictions on the number of individual approval orders that may be issued and it is not clear how the restriction envisioned by the commenter would be implemented. The permitting program is just one portion of DAQ's responsibilities. Other programs within DAQ such as air monitoring, emission inventories, and compliance complement the permitting program to address compliance with the NAAQS and increment. If necessary, R307-401-19 provides additional protections to address unusual circumstances. The Director must approve the application of each new source before it can be covered under a GAO. In addition, language has been added to R307-401-19(6) to clarify that the Director may require a source to submit a notice of intent and receive an individual AO if the source would cause a violation of the NAAQS.

22. Comment: Relative to the Oil and Gas Sector GAO and in addition to the above, it is imperative that any analysis that accompanies the proposed or final GAO must include and the GAO must require on a source-by-source basis the emission inventory, specific information about sources connected via pipeline, and all permitted sources which will be affected.

    Response: DAQ staff agrees that emission inventory information for the oil and gas sector is important. Approval orders will provide important information for the emission inventory, but other information sources are also available including the Division of Oil, Gas, and Mining's database, new source performance standards (NSPS) reporting requirements, and DAQ's inventory questionnaires. DAQ is working with other state agencies, EPA, and the producers to identify the most effective methods for collecting emission inventory information. Mandating that this information be collected through the GAO process would limit DAQ's flexibility to find better ways for developing an emission inventory for the oil and gas sector. The GAO rule could apply to many different types of small sources. The rule must provide flexibility to allow each GAO to address different types of sources.

    The proposed rule currently provides flexibility for DAQ to establish appropriate conditions, including those necessary to support the emission inventory.

R307. Environmental Quality, Air Quality.
R307-401. Permit: New and Modified Sources.
R307-401-19. General Approval Order.

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

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

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

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

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

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

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

(4) Application.

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

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

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

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

(5) Approval.

(a) The director will review the application and approve or deny the request based on criteria specified in the general approval order for that type of source. If approved, the

director will issue an authorization to the applicant to operate under the general approval order.

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

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

(6) Exclusions and Revocation[~~ and Exclusions~~].

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

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

(ii) the director determines that the application for the general approval order did not contain all necessary information to evaluate applicability under the general approval order;[~~ or~~]

(iii) modifications were made to the source that were not authorized by the general approval order or an individual approval order[~~.~~];

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

([~~i~~]v) [~~When determining whether an individual approval order is required,~~]the director determines that one is required based on [~~may consider~~]the compliance history and current compliance status of the source or applicant.

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

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

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

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

(b) All other modifications or the discontinuation of a general approval order shall not apply to any source authorized under previous versions of the general approval order unless the owner or operator submits an application to be covered under the

new version of the general approval order. Modifications under R307-401-19(7)(b) shall meet the public notice requirements in R307-401-19(3).

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

KEY: air pollution, permits, approval orders, greenhouse gases
Date of Enactment or Last Substantive Amendment: 2013
Notice of Continuation: June 6, 2012
Authorizing, and Implemented or Interpreted Law: 19-2-104(3)(q); 19-2-108

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-089-13

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Bill Reiss, Environmental Engineer

DATE: October 23, 2013

SUBJECT: FINAL ADOPTION: Amend State Implementation Plan (SIP) Section IX, Part A.23, Control Measures for Area and Point Sources, Fine Particulate Matter, $PM_{2.5}$ SIP for Logan, UT-ID Nonattainment Area.

The $PM_{2.5}$ SIP approved by the Board on December 5, 2012, included, in its transportation conformity section, an element that was identified as yet to be determined.

The requirement to include a mobile source emissions budget for direct $PM_{2.5}$ is identified in 40 CFR 93.102 as somewhat discretionary. Direct $PM_{2.5}$ includes brake-wear, tire-wear, and tailpipe emissions, but not re-entrained road dust. At the time the SIP was approved, neither EPA nor DAQ was ready to conclude whether a budget for direct $PM_{2.5}$ would be necessary.

On August 7, 2013, the Board proposed amendments to Chapter 7 of SIP Section IX, Part A.23 to resolve this issue by:

- Establishing a motor vehicle emission budget (MVEB) for on-road direct $PM_{2.5}$ emissions; and
- Establishing a trading mechanism to allow future increases in on-road direct $PM_{2.5}$ emissions to be offset by future decreases in plan precursor emissions from on-road mobile sources at appropriate ratios established by the air quality model.

A 30-day public comment period was held. No comments were received and no hearing was requested.

Staff Recommendation: Staff recommends the Board adopt Chapter 7 of SIP Section IX, Part A.23 as proposed.

Chapter 7 – TRANSPORTATION CONFORMITY

7.1 Introduction

The federal Clean Air Act (CAA) requires that transportation plans and programs within the Logan, UT-ID $PM_{2.5}$ nonattainment area conform to the air quality plans in the region prior to being approved by the Cache Metropolitan Planning Organization (CMPO). Demonstration of transportation conformity is a condition to receive federal funding for transportation activities that are consistent with air quality goals established in the Utah State Implementation Plan (SIP). The CAA regulates air pollutant emissions from mobile sources by establishing motor vehicle emissions budgets in the SIP. Transportation conformity requirements are intended to ensure that transportation activities do not interfere with air quality progress. Conformity applies to on-road mobile source emissions from regional transportation plans (RTPs), transportation improvement programs (TIPs), and projects funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) in areas that do not meet or previously have not met the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, particulate matter less than 10 micrometers in diameter (PM_{10}), particulate matter 2.5 micrometers in diameter or less ($PM_{2.5}$), or nitrogen dioxide.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFTEA-LU) and section 176(c)(2)(A) of the CAA require that all regionally significant highway and transit projects in air quality nonattainment areas be derived from a "conforming" transportation plan. Section 176(c) of the CAA requires that transportation plans, programs, and projects conform to applicable air quality plans before being approved by an MPO. Conformity to an implementation plan means that proposed activities must not (1) cause or contribute to any new violation of any standard in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

The plans and programs produced by the transportation planning process of the CMPO are required to conform to the on-road mobile source emissions budgets established in the SIP. Approval of conformity is determined by the FHWA and FTA.

7.2 Consultation

The Interagency Consultation Team (ICT) is an air quality workgroup in Utah that makes technical and policy recommendations regarding transportation conformity issues related to the SIP development and transportation planning process. Section XII of the SIP established the ICT workgroup and defines the roles and responsibilities of the participating agencies. Members of the ICT workgroup collaborated on a regular basis during the development of the $PM_{2.5}$ SIP. They also meet on a regular basis regarding

transportation conformity and air quality issues. The ICT workgroup is comprised of management and technical staff members from the affected agencies associated directly with transportation conformity.

ICT Workgroup Agencies

- Utah Division of Air Quality (UDAQ)
- Metropolitan Planning Organizations MPOs
    - CMPO
    - Wasatch Front Regional Council
    - Mountainland Association of Governments
- Utah Department of Transportation (UDOT)
- Utah Local Public Transit Agencies
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- U.S. Environmental Protection Agency (EPA)

7.3 Regional Emission Analysis

The regional emissions analysis is the primary component of transportation conformity and is administered by the lead transportation agency located in the EPA designated air quality nonattainment area. On December 2009, EPA designated the only multistate nonattainment area in the State of Utah by declaring portions of Cache County, Utah and Franklin County, Idaho (Cache Valley) as a $PM_{2.5}$ nonattainment area. The responsible transportation planning organization for the Utah portion of the multistate nonattainment area is covered by the CMPO while the Idaho portion is covered by the Idaho Department of Transportation.

The motor vehicle emissions budget serves as a regulatory limit for on-road mobile source emissions. Motor vehicle emissions limits are defined in 40 CFR 93.101 as "that portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions." As a condition to receive federal transportation funding, transportation plans, programs, and projects are required to meet those emission budgets through strategies that increase the efficiency of the transportation system and reduce motor vehicle use.

The conformity test consists of either an interim emissions test or a motor vehicle emissions budgets test. The interim conformity test requirements apply until either EPA has declared the motor vehicle emissions budgets adequate for transportation conformity purposes or until EPA approves the $PM_{2.5}$ SIP.

7.4 Interim $PM_{2.5}$ Conformity Test

The EPA interim conformity test for $PM_{2.5}$ emissions requires that future nitrogen oxides (NO_x) and direct $PM_{2.5}$ emissions from RTPs, TIPs, and projects funded or approved by the FHWA or the FTA not exceed 2008 levels. Direct particulate emissions consist of particles emitted from vehicle exhaust (elemental carbon, organic carbon, and SO_4) and brake and tire wear. Interim emissions budget tests performed by the CMPO must include the whole multistate $PM_{2.5}$ nonattainment area of Cache Valley, including emissions estimates from Franklin County, Idaho. In the Transportation Conformity $PM_{2.5}$ Components section below, Cache County, Utah and Franklin County, Idaho have requested separate motor vehicle emissions budgets for their respective areas; therefore, the budget listed only applies to the Cache MPO. The Interim conformity test requirements apply until EPA has declared the motor vehicle emissions budgets adequate for transportation conformity purposes or until it approves the $PM_{2.5}$ SIP.

7.5 Transportation $PM_{2.5}$ Budget Test Requirements

The CMPO collaborated with the ICT workgroup on interim conformity and SIP related issues prior to receiving the official EPA designation status of nonattainment for $PM_{2.5}$. During the SIP development process the CMPO coordinated with the ICT workgroup and developed $PM_{2.5}$ SIP motor vehicle emissions budgets using the latest planning assumptions and tools for traffic analysis and the EPA approved Motor Vehicle Emission Simulator (MOVES) emissions model. Local MOVES modeling data inputs were cooperatively developed by CMPO and the ICT workgroup using EPA recommended methods where applicable.

7.6 Transportation Conformity $PM_{2.5}$ Components

The transportation conformity requirements found in 40 CFR 93.102 require that the $PM_{2.5}$ SIP include motor vehicle emissions budgets for direct $PM_{2.5}$; motor vehicle emissions from tailpipe, brake and tire wear; and emissions of nitrogen oxide (NO_x), a gaseous $PM_{2.5}$ precursor. Because UDAQ has identified volatile organic compounds (VOCs) as a $PM_{2.5}$ precursor that significantly impact $PM_{2.5}$ concentrations, the SIP will need a VOC motor vehicle emissions budget for transportation conformity purposes. The EPA conformity rule presumes that $PM_{2.5}$ re-entrained road dust does not need to be included in the interim conformity test or have an established motor vehicle emissions budget unless either the state or EPA decides that re-entrained road dust emissions are a significant contributor to the $PM_{2.5}$ nonattainment problem. The UDAQ conducted a re-entrained road dust study that concluded that $PM_{2.5}$ re-entrained road dust emissions are negligible in the Utah portion of the Cache Valley $PM_{2.5}$ nonattainment area. EPA Region 8 reviewed the study and concurred with the UDAQ's findings. A

similar analysis was undertaken to address direct $PM_{2.5}$ emissions, but in this case the conclusion was otherwise. Therefore, a motor vehicle emissions budget for direct $PM_{2.5}$ is established in this SIP.

7.7 Transportation Conformity $PM_{2.5}$ Budgets

In this SIP, the state is establishing transportation conformity motor vehicle emission budgets (MVEB) for NO_x, VOC, and $PM_{2.5}$ (elemental carbon, organic carbon, SO_4, brake and tire wear) for 2014 in the nonattainment portions of Cache County, Utah. The Transportation Conformity $PM_{2.5}$ budgets emissions estimates for the mobile sources are calculated from the EPA approved Motor Vehicle Emission Simulator Model (EPA MOVES 2010a).

Cache MPO Transportation Conformity Budgets

	Direct $PM_{2.5}$ (tpd)	NO_x (tpd)	VOC (tpd)
2014	0.33	4.82	3.45

Table 7.1, Emissions Budgets for Transportation Conformity Purposes (EPA MOVES 2010a). Note: VOC emissions do not include refueling spillage and displacement vapor loss. Budgets are rounded to the nearest hundredth ton.

Per section 93.124 of the conformity regulations, for transportation conformity analyses using these budgets in analysis years beyond 2014, a trading mechanism is established to allow future increases in on-road direct $PM_{2.5}$ emissions to be offset by future decreases in plan precursor emissions from on-road mobile sources at appropriate ratios established by the air quality model. Future increases in on-road direct $PM_{2.5}$ emissions may be offset with future decreases in NOx emissions from on-road mobile sources at a NOx:$PM_{2.5}$ ratio of 14.65:1 and/or future decreases in VOC emissions from on-road mobile sources at a VOC:$PM_{2.5}$ ratio of 20.98:1. This trading mechanism will only be used if needed for conformity analyses for years after 2014. To ensure that the trading mechanism does not impact the ability to meet the NOx or VOC budgets, the NOx emission reductions available to supplement the direct $PM_{2.5}$ budget shall only be those remaining after the 2014 NOx budget has been met, and the VOC emissions reductions available to supplement the direct $PM_{2.5}$ budget shall only be those remaining after the 2014 VOC budget has been met. Clear documentation of the calculations used in the trading should be included in the conformity analysis.

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-091-13

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Mat Carlile, Environmental Planning Consultant

DATE: October 24, 2013

SUBJECT: FINAL ADOPTION: Amend Utah State Implementation Plan Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County.

On August 7, 2013, the Board proposed for public comment the amendments to Utah SIP Section X, Part F, Cache County. These amendments incorporate the Cache County ordinance and the Bear River Health Department regulation that govern the Cache County inspection and maintenance (I/M) program.

A public comment period was held from September 1 to October 1, 2013. No comments were received and no public hearing was requested.

Staff Recommendation: Staff recommends the Board adopt Utah SIP Section X, Part F, Cache County as proposed.

UTAH STATE IMPLEMENTATION PLAN

SECTION X

VEHICLE INSPECTION AND MAINTENANCE PROGRAM

Part F

Cache County

Adopted by the Utah Air Quality Board
November 6, 2013

Table of Contents

SECTION X Part F
Cache County Emission Inspection/ Maintenance Program
APPENDICES

1. Cache County Emission Inspection/ Maintenance Program Ordinance 2013-04
2. Bear River Health Department Regulation 2013-1

UTAH STATE IMPLEMENTATION PLAN
SECTION X, PART F
VEHICLE INSPECTION AND MAINTENANCE (I/M) PROGRAM

1. Applicability

Cache County I/M program requirements: Cache County was designated nonattainment for the $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) on December 14, 2009 (74 FR 58688, November 13, 2009). Accordingly, Cache County must implement control strategies to attain the $PM_{2.5}$ NAAQS. A motor vehicle emission inspection and maintenance (I/M) program has been identified by the $PM_{2.5}$ State Implementation Plan (SIP) as a necessary control strategy to attain the $PM_{2.5}$ NAAQS as expeditiously as practicable. Therefore, pursuant to Utah Code Annotated 41-6a-1642, Cache County must implement an I/M program that complies with the minimum requirements of 40 CFR Part 51 Subpart S. Cache County will implement its I/M program county-wide. Parts A and F of Section X demonstrate compliance with 40 CFR Part 51 Subpart S for Cache County.

2. Description of Cache I/M Programs

Below is a summary of Cache County's I/M program. Section X, Part F Appendices 1 and 2 contain the essential documents for Cache County's I/M program.

Network Type: Cache County's I/M program will comprise of a decentralized test-and-repair network.

Test Convenience: Cache County will make every effort to ensure that its citizens will have stations conveniently located throughout Cache County. Specific operating hours are not specified by the county; however, its Regulation requires that stations be open and available to perform inspections during a major portion of normal business hours of 8:00 a.m. to 5:00 pm Mondays through Fridays.

Subject fleet: All model year 1969 and newer vehicles registered or principally-operated in Cache County are subject to the I/M program except for exempt vehicles.

Station/inspector Audits: Cache County's I/M program will regularly audit all permitted I/M inspectors and stations to ensure compliance with county I/M ordinances, regulations, and policies. Particular attention will be given to identifying and correcting any fraud or incompetence with respect to vehicle emissions inspections. Compliance with recordkeeping, document security, analyzer maintenance, and program security requirements will be scrutinized. The Cache County I/M program will have an active covert compliance program to minimize potential fraudulent testing.

Waivers: Cache County's I/M program allows for the issuance of waivers under limited circumstances. The procedure for issuing waivers is specified in Cache County's I/M regulation provided in Section 9.6 of Appendix 2 of this part of the SIP and meets the minimum waiver issuance criteria specified in 40 CFR Subparts 51.360.

Test frequency: Vehicles less than six years old as of January 1 on any given year will be exempt from an emissions inspection. All model year 1969 and newer vehicles are subject to a biennial test.

Test Equipment: Specifications for the I/M test procedures, standards and analyzers are described in Cache County's I/M regulation provided in Appendix 2. Specifications for the test procedure and equipment were developed according to good engineering practices to ensure test accuracy. Analyzer calibration specifications and emissions test procedures meet the minimum standards established in Appendix A of the EPA's I/M Guidance Program Requirements, 40 CFR Part 51 Subpart S.

Test Procedures:

- The following vehicles are subject to an on-board diagnostic (OBD) II inspection:
    - 1996 and newer light duty vehicles[1] and
    - 2008 and newer medium duty vehicles[2]
- The following vehicles are subject to a two-speed idle test that is compatible with Section VI (Preconditioned Two Speed Idle Test) in Appendix B of the EPA I/M Guidance Program Requirements, 40 CFR 51, Subpart S:
    - 1995 and older vehicles,
    - 1996 to 2007 medium and heavy duty vehicles[3] and
    - 2008 and newer heavy duty vehicles.

Test procedures are outlined in Appendix 2 of this part of the SIP

1 Light duty vehicles have a Gross Vehicle Weight of 8500 lbs or less.
2 Medium duty vehicles have a Gross Vehicle Weight greater than 8500 lbs but less than 14,000 lbs
3 Heavy Duty vehicles have a Gross Vehicle Weight greater 14,000 lbs

3. I/M SIP Implementation

The I/M program ordinance, regulations, policies, procedures, and activities specified in this I/M SIP revision shall be implemented by January 1, 2014 and shall continue until a maintenance plan without an I/M program is approved by EPA in accordance with Section 175 of the Clean Air Act.

Appendex 1

BEAR RIVER HEALTH DEPARTMENT

REGULATION NO. 2013-1

A REGULATION OF THE BEAR RIVER HEALTH DEPARTMENT FOR A VEHICLE EMISSIONS INSPECTION AND MAINTENANCE PROGRAM

Adopted by the Bear River Board of Health

May 9, 2013

Table of Contents

1.0 DEFINITIONS

For the purpose of this Regulation, the following terms, phrases, and words shall have the following meanings, unless otherwise defined:

Air Intake Systems: Systems that allow for the induction of ambient air, including preheated air into the engine combustion chamber for the purpose of mixing with a fuel for combustion;

AIR System: (Air Injection Reaction) A system for providing supplementary air into a vehicle's exhaust system to promote further oxidation of HC and CO gases and to assist catalytic reaction;

Analyzer: See Exhaust Emissions Gas Analyzer;

Board: See Board of Health;

Board of Health: The Bear River Board of Health;

Cache County Council: The elected Cache County Council representatives;

Calibration: The process of establishing or verifying the accuracy of an Exhaust Emissions Gas Analyzer to perform a consistent evaluation of engine exhaust by using different calibration gases having precisely known concentrations;

Calibration Gases: Gases of accurately known concentration that are used as references for establishing or verifying the calibration curve and accuracy of an Exhaust Emissions Gas Analyzer and are approved by the Department for use.

Catalytic Converter: A post-combustion device that oxidizes HC and CO gases and/or reduces oxides of nitrogen gases;

Certificate of Compliance: A document used in the I/M Program to certify that a vehicle meets all applicable requirements of the program;

Certificate of Waiver: A document used to verify that a vehicle has met the repair or adjustment requirements of the I/M Program Rules and Regulations even though specific emission standards have not been met;

Certification: Assurance by an authorized source, whether it be a laboratory, the manufacturer, the State, or the Department, that a specific product or statement is in fact true and meets all required requirements;

Certified Emissions Inspector: A person who has successfully completed all certification requirements and has been issued a current, valid Certified Emissions Inspector Certification by the Department;

Certified Testing Equipment: An official test instrument that has been approved by the Department to test motor vehicles for compliance with this Regulation; this includes the Analyzer as well as the OBD testing portion of the machine;

CO: Carbon monoxide;

Compliance: Verification that certain submission data and hardware submitted by a manufacturer for accreditation consideration, meets all required accreditation requirements;

Council: See Cache County Council;

County: Cache County, Utah;

Custom Vehicle: A motor vehicle that meets the requirements of Section 41-6a-1507, Utah Code Annotated, 1953 as amended;

Cutpoints: The maximum allowable concentration of carbon monoxide (CO) and hydrocarbons (HC) for a given weight class and model year of a motor vehicle, as provided by this Regulation, using an approved infrared Exhaust Emissions Gas Analyzer;

Department: The Bear River Health Department;

Director: The Director of the Bear River Health Department or his authorized representative;

DLC: Data Link Connector used in OBD applications is a 16 pin connector used by scan tools and other emission diagnostic equipment to communicate with the vehicle's computer for the purpose of collecting emissions related data;

DTC: Diagnostic Trouble Code is a standardized 5 digit code that is used to identify a specific fault that has occurred or is occurring in a vehicle;

EGR System: The Exhaust Gas Recirculation System – An emissions control system that recycles or recirculates a portion of the exhaust gases back to the engine combustion chambers;

Emissions Control Systems: Parts, assemblies or systems originally installed by the manufacturer in or on a vehicle for the sole or primary purpose of reducing emissions;

Exhaust Emissions Gas Analyzer: An instrument that is capable of measuring the concentrations of certain air contaminants in the exhaust gas emanating from a

motor vehicle which is approved by the Department for this use in accordance with this Regulation as an official test instrument;

Evaporative Control System: An emissions control system that prevents the escape of fuel vapors from the fuel tank or air cleaner and stores them in a charcoal canister to be burned in the combustion chamber;

Gas Calibration Check: A procedure using known concentrations of HC and CO calibration gases to verify the accuracy of an Analyzer in measuring HC and CO;

HC: Hydrocarbons;

Idle: A condition where the vehicle engine is warm and running at the rate specified by the manufacturer's curb idle, where the engine is not propelling the vehicle, and where the throttle is in the closed or idle stop position. This condition must be achieved without placing a load on the vehicle to decrease the RPM to the specified rate;

I/M Program: See Vehicle Emissions Inspection and Maintenance Program;

I/M Program Station: A stationary Vehicle Emissions Inspection and Maintenance Station that qualifies and has a valid permit, issued by the Department, to operate as an emissions inspection and maintenance station in the I/M Program;

Inspection: An official vehicle emissions test performed for the purpose of issuing a Certificate of Compliance or Certificate of Waiver;

Inspector: A Certified Emissions Inspector;

MIL: Malfunction Indicator Light is an indicator located on the instrument panel that notifies the operator of an emissions fault;

Motor Vehicle: A self-propelled motorized vehicle with an internal combustion powered engine which is licensed for operation on public roads and/or streets. Motor Vehicles exempted from the inspection requirements of this Regulation are listed in Section 6.4 of this Regulation;

Non-certified Inspector: Any person who has not been certified by the Department to perform official emissions tests;

OBD: On Board Diagnostic refers to a vehicle's monitoring and diagnostic capabilities of its emissions systems;

PCV System: Positive Crankcase Ventilation System – an emissions control system which returns crankcase vapors and blowby gases to the combustion chamber to be burned;

Primary Residence: Is the place where an individual intends to permanently reside, maintains a permanent residence more than six (6) months during a calendar year, or where an individual lives more than six (6) months during a calendar year;

Publicly-owned Vehicles: A motor vehicle owned by a government entity, including but not limited to the federal government or any agency thereof, the State of Utah or any agency or political subdivision thereof;

Readiness: Readiness is used to identify the state of a vehicle's emissions monitors as they are tested. Readiness does not indicate whether the monitors passed or failed the test, it only indicates whether or not the test has been run for any particular monitor;

Station: An I/M Program Station;

Technical Bulletin: A document, issued to Certified Emissions Inspectors and/or I/M Program Stations by the Department to update, clarify or establish policies and/or procedures for their implementation in the I/M Program;

Training Program: A formal program administered, conducted, or approved by the Department for the education of emission inspectors in basic emission control technology, inspection procedures, diagnosis and repair of emissions related problems, I/M Program policies, procedures, and this Regulation;

Two-Speed Idle: A condition where the vehicle engine is warm and running at a high speed rate of 2200-2800 RPMs and then a low rate of 350-1200 RPMs;

Vehicle Emissions Inspection and Maintenance Program: The program established by the Department pursuant to Section 41-6a-1642 Utah Code Annotated, 1953, as amended, and Cache County Ordinance 2013-04;

Vintage Vehicle: A motor vehicle that meets the requirements of Section 41-21-1 Utah Code Annotated, 1953 as amended;

2.0 PURPOSE

It is the purpose of this Regulation to reduce air pollution levels in Cache County by requiring inspections of in-use motor vehicles and by requiring emission related repairs and/or adjustments for those vehicles that fail to meet the prescribed standards so as to:

2.1 Protect and promote the public health, safety, and welfare;

2.2 Improve air quality;

2.3 Meet or exceed the minimum design and performance requirements for I/M Programs as defined in 40 CFR Part 51, Subpart S.

2.4 Comply with the law enacted by the Legislature of the State of Utah, Sections 41-6a-1642 Utah Code Annotated, 1953, as amended.

2.5 Comply with Cache County Ordinance 2013-04.

3.0 AUTHORITY AND JURISDICTION OF THE DEPARTMENT

3.1 Under Section 2.3 of Cache County Ordinance 2013-04, the Cache County Council delegates its authority as an administrative body under Section 41-6a-1642, Utah Code Annotated, 1953, as amended, to the Bear River Board of Health (hereafter Board), to address all issues pertaining to the adoption and administration of the Vehicle Emissions Inspection and Maintenance Program (hereafter I/M Program).

3.2 Under Section 2.4 of Cache County Ordinance 2013-04, the Council directs the Board to adopt and promulgate rules to ensure compliance with State Implementation Plan requirements with respect to an I/M Program.

3.3 The Board is authorized to make standards and regulations pursuant to Section 26A-1-121(1) of the Utah Code Annotated, 1953, as amended.

3.4 The Board is authorized to establish and collect fees pursuant to Section 26A-1-114(1)(h)(i) of the Utah Code Annotated, 1953, as amended.

3.5 All aspects of the I/M Program within Cache County enumerated in Section 2.0 of this Regulation shall be subject to the direction and control of the Bear River Health Department (hereafter Department).

4.0 POWERS AND DUTIES

4.1 The Department shall be responsible for the enforcement and administration of this Regulation and any other powers vested in it by law and shall:

4.1.1 Make policies and procedures necessary to ensure that the provisions of this Regulation are met and that the purposes of this Regulation are accomplished;

4.1.2 Require the submission of information, reports, plans, and specifications from I/M Program Stations as necessary to implement the provisions, requirements, and standards of this Regulation;

4.1.3 Issue permits, certifications, and charge fees as necessary to implement the provisions, requirements, and standards of this Regulation; and

4.1.4 Perform audits of any I/M Program Station, issue orders and/or notices, hold hearings, and levy administrative penalties, as necessary to effect the purposes of this Regulation.

4.2 The Department may suspend, revoke, or deny a permit, subject to the Penalty Schedule in Appendix C, of an I/M Program Station and/or require the surrender of the permit of such I/M Program Station upon showing that:

4.2.1 A vehicle was inspected and issued a Certificate of Compliance by the station personnel that did not, at the time of inspection, comply with all applicable policies, procedures, Technical Bulletins, and this Regulation;

4.2.2 A vehicle was inspected and rejected by the I/M Program Station when, in fact, the vehicle was determined by the Department to be in such condition that it did comply with the requirements of this Regulation;

4.2.3 The I/M Program Station is not open and available to perform inspections during a major portion of the normal business hours of 8:00 AM to 5:00 PM Mondays through Fridays (except I/M Program Stations which only test their own vehicles);

4.2.4 The I/M Program Station has violated any provisions of this Regulation, or any Rule, Regulation, or Department policy properly promulgated for the operation of an I/M Program Station;

4.2.5 The I/M Program Station was not equipped as required by Section 7.0 of this Regulation;

4.2.6 The I/M Program Station is not operating from a location specified on the permit;

4.2.7 An official inspection was done by a non-certified inspector or a non-certified inspector has gained access to the official testing portion of the test equipment or a non-certified inspector signed a Certificate of Compliance;

4.2.8 The computerized test equipment has been tampered with or altered in any way contrary to the certification and maintenance requirements of the test equipment;

4.2.9 The I/M Program Station denies access to a representative of the Department to conduct an audit or other necessary business during regular business hours;

4.2.10 An engine change verification form was completed and signed when, in fact, the engine block number was not verified by a Certified Emissions Inspector or other authorized personnel approved by the Department;

4.2.11 The I/M fee signage procedures are not followed as specified in Section 6.6; or

4.2.12 The I/M fee has been determined by the Department to be discriminatory in that different fees are assessed dependent upon vehicle ownership, vehicle make or model, owner residence, etc.

4.3 The Department may suspend, revoke, or deny the certificate of a Certified Emissions Inspector, subject to the Penalty Schedule in Appendix C, and require the surrender of this certificate upon showing that:

4.3.1 The Certified Emissions Inspector caused a Certificate of Compliance to be issued without an approved inspection being made;

4.3.2 The Certified Emissions Inspector denied the issuance of a Certificate of Compliance to a vehicle that, at the time of inspection, complied with the law for issuance of said certificate;

4.3.3 The Certified Emissions Inspector issued a Certificate of Compliance to a vehicle that, at the time of issuance, was in such a condition that it did not comply with this Regulation;

4.3.4 Inspections were performed by the Certified Emissions Inspector, but not in accordance with applicable policies, procedures, Technical Bulletins, and this Regulation;

4.3.5 The Certified Emissions Inspector allowed a non-certified inspector to perform an official I/M test or gain access to the official testing portion of the test equipment;

4.3.6 The Certified Emissions Inspector signed an inspection form or certificate stating that he had performed the emissions test when, in fact, he did not; or

4.3.7 The Certified Emissions Inspector completed and signed an engine change verification form when in fact the engine block number was not verified.

4.4 The Department shall respond, according to the policies and procedures of the Department, to public complaints regarding the fairness and integrity of the inspections they receive and shall provide a method that inspection results may be challenged if there is a reason to believe them to be inaccurate.

5.0 SCOPE

It shall be unlawful for any person to fail to comply with any policy, procedure, Technical Bulletin, or regulation promulgated by the Department, unless expressly waived by this Regulation.

6.0 GENERAL PROVISIONS

Subject to the exceptions in Section 6.4 and pursuant to the schedule in Section 6.1, individuals with their primary residence in Cache County must register their motor vehicles in Cache County and motor vehicles (of model years 1969 and newer) that are or will be registered in Cache County, or operated from a facility within Cache County shall be subject to an emission inspection performed by an I/M Program Station or other entity approved by the Director. Owners of vehicles that meet the requirements of Section 6.2 or 6.3 shall comply with the inspection requirements regardless of the county of registration.

6.1 Beginning January 1, 2014 motor vehicles are subject to a biennial emissions inspection. Emissions inspections will be required in odd-numbered years for a vehicle with an odd-numbered model year. Emissions inspections will be required in even-numbered years for a vehicle with an even-numbered model year

6.1.1 A Certificate of Compliance, Certificate of Waiver, or evidence that the motor vehicle is exempt from the I/M Program requirements (as defined in Section 6.4) shall be presented to the Cache County Assessor or the Utah State Tax Commission as conditions precedent to registration or renewal of registration of a motor vehicle in odd-numbered years for a vehicle with an odd-numbered model year.

6.1.2 A Certificate of Compliance, Certificate of Waiver, or evidence that the motor vehicle is exempt from the I/M Program requirements (as defined in Section 6.4) shall be presented to the Cache County Assessor or the Utah State Tax Commission as conditions precedent to registration or renewal of registration of a motor vehicle in even-numbered years for a vehicle with an even-numbered model year.

6.1.3 The Air Pollution Control Fee shall be paid annually, as per Section 4.5 of Cache County Ordinance 2013-04, (see also Section 6.7 of this Regulation) as conditions precedent to registration or renewal of registration of a motor vehicle.

6.1.4 A Certificate of Compliance shall be valid for a period of time in accordance with 41-1a-205 Utah Code Annotated, 1953, as amended.

6.2 Publicly-Owned Vehicles. Owners of publicly-owned vehicles shall comply with the inspection program requirements. Federally-owned vehicles and vehicles of employees operated on a federal installation that do not require registration in the State of Utah shall comply with the emissions testing requirements.

6.3 Vehicles of employees and/or students parked at a college or university that do not require registration in Cache County shall comply with the emissions testing requirements as authorized by 41-6a-1642(5)(a) Utah Code Annotated, 1953, as amended.

6.3.1 College or university parking areas that are metered or for which payment is required per use are not subject to the requirements in Section 6.3.

6.4 Vehicle Exemption. The following vehicles are exempt from these emissions testing requirements:

6.4.1 Any vehicle of model year 1968 or older;

6.4.2 All agricultural implements of husbandry and any motor vehicle that qualifies for an exemption as provided by 41-6a-1642(3) and 41-6a-1642(4) Utah Code Annotated, 1953, as amended;

6.4.3 Any vehicle used for maintenance or construction and not designed or licensed to operate on the highway;

6.4.4 Any motorcycle or motor driven cycle (including vehicles which operate with an engine normally used in a motorcycle);

6.4.5 Any vehicle that operates exclusively on electricity;

6.4.6 Any motor vehicle which qualifies for legislative exemptions;

6.4.7 Tactical military vehicles;

6.4.8 Any vintage vehicle as provided by 41-6a-1642(3) Utah Code Annotated, 1953, as amended;

6.4.9 Any custom vehicle as provided by 41-6a-1642(3) Utah Code Annotated, 1953, as amended;

6.4.10 Any vehicle that is less than six years old on January 1 based on the age of the vehicle as determined by the model year identified by the manufacturer;

6.4.11 Any diesel powered vehicle 1997 and older. These vehicles will be subject to a smoking vehicle program established by the Board; and

6.4.12 Any diesel powered vehicle with a GVW greater than 14,000 lbs. These vehicles will be subject to a smoking vehicle program established by the Board.

6.5 It shall be the responsibility of the Certified Emissions Inspector if a vehicle exempted from this Regulation by Section 6.4 of this Regulation is brought to the Certified Emissions Inspector for an official emission test to inform the owner/operator of the vehicle that the vehicle is not required to have an official emission inspection for vehicle registration purposes.

6.6 Official Signs.

6.6.1 All I/M Program Stations, except those stations authorized to inspect only their own motor vehicles as a fleet inspection station, shall display in a conspicuous location on the premises an official sign provided and approved by the Department;

6.6.2 The emission cutpoints, as referenced in Appendix B shall be posted in a conspicuous place on the station's premises;

6.6.3 The readiness requirements for an OBD test as referenced in Appendix D shall be posted in a conspicuous place on the station's premises;

6.6.4 The station shall post on a clear and legible sign and in a conspicuous place at the station, the fees charged by that station for the performance of the emissions inspection;

6.6.5 The free re-inspection policy as referenced in Section 9.6 shall be posted in a conspicuous place on the station's premises;

6.6.6 The signs required by Sections 6.6.1 through 6.6.5 shall be located so as to be easily in the public view.

6.7 Fees.

6.7.1 The fees assessed upon I/M Program Stations and Certified Emissions Inspectors shall be determined according to a fee schedule adopted by the Board. The fee schedule is referenced in Appendix A to this Regulation and may be amended by the Board as necessary.

6.7.2 An Air Pollution Control Fee is hereby assessed upon every motor vehicle registered in Cache County as per Section 4.5 of Cache County Ordinance 2013-04. The fee will be assessed annually at the time of registration of the vehicle.

6.7.2.1 This fee assessment is included upon all motorized vehicles including those that are exempted from the inspection requirements of this Regulation by Section 6.4 unless a separate fee is assessed on other motor vehicles by other Board of Health Regulations.

6.7.2.2 A motor vehicle that is exempt from the registration fee, and a commercial vehicle with an apportioned registration shall be exempt from this fee as per Section 41-1a-1223, Utah Code Annotated, 1953, as amended and Section 4.5.2 of Cache County Ordinance 2013-04.

6.7.3 I/M Program Stations may charge a fee for the required service. The fee may not exceed, for each vehicle inspected, the amount set by the Board and referenced in Appendix A of this Regulation.

6.7.3.1 The inspection fee pays for a complete inspection leading to a Certificate of Compliance or a failure. If a vehicle fails the inspection, the owner/operator is entitled to one free re-inspection if he returns to the I/M Program Station that performed the original inspection within fifteen (15) calendar days from the date of the initial inspection. The I/M Program Station shall extend the fifteen day free re-inspection to accommodate the vehicle owner/operator if the I/M Program Station is unable to schedule the retest of the vehicle within the fifteen day time period. The inspection fee shall be the same whether the vehicle passes or fails the emission test.

6.7.3.2 At the request of the Department, an I/M Program Station shall extend the free retest time for vehicle owners/operators who are unable to complete repairs because of the unavailability of parts to make the necessary repairs.

6.7.4 If a vehicle fails the inspection and is within the time and mileage requirements of the federal emissions warranty contained in section 207 of the Federal Clean Air Act, the Certified Emissions Inspector shall inform the owner/operator that he may qualify for warranty coverage of emission related repairs as provided by the vehicle manufacturer and mandated by the Federal Environmental Protection Agency (see 40 CFR Part 85, Subpart V).

7.0 PERMIT REQUIREMENTS OF THE VEHICLE EMISSIONS I/M PROGRAM STATION

7.1 Permit Required.

7.1.1 No person shall in any way represent any place as an official I/M Program Station unless the station is operated under a valid permit issued by the Department.

7.1.2 The Department is authorized to issue or deny permits for I/M Program Stations.

7.1.3 No permit for any official I/M Program Station may be assigned, transferred, or used by any person other than the original owner identified on the permit application for that specific I/M Program Station.

7.1.4 The permit shall be posted in a conspicuous place within public view on the premises.

7.1.5 Application for an I/M Program Station permit shall be made to the Department upon a form provided by the Department. No permit shall be issued unless the Department finds that the facilities, tools, and equipment of the applicant comply with the requirements of this Regulation and that competent personnel, certified under the provisions of Section 8.0, are employed and will be available to make inspections, and the operation thereof will be properly conducted in accordance with this Regulation.

7.1.5.1 An I/M Program Station shall notify the Department and cease any emission testing if the station does not have a Certified Emissions Inspector employed;

7.1.5.2 An I/M Program Station shall notify the Department upon termination and/or resignation of any Certified Emissions Inspector employed by the station;

7.1.5.3 An I/M Program Station shall comply with all the terms stated in the permit application and all the requirements of this Regulation;

7.1.5.4 As a condition for permitting test and repair I/M Program Stations, the station will keep and maintain all necessary tools and resources needed to effectively repair vehicles that fail an emissions test;

7.1.5.5 As a condition for permitting test only I/M Program Stations, the station will notify the vehicle owner/operator that the facility is a test only facility and will not provide repairs, prior to any official emissions test;

7.1.5.6 An I/M Program Station shall have a building with a suitable exhaust extraction system; and

7.1.5.7 An I/M Program Station shall provide a dedicated internet connection for the Certified Testing Equipment.

7.2 Permit Duration and Renewal

7.2.1 The permit for I/M Program Stations shall be issued annually and shall expire on the last day of the month, one year from the month of issue. The permit shall be renewable sixty days prior to the date of expiration.

7.2.2 It is the responsibility of the owner/operator of the I/M Program Station to pursue the permit renewal through appropriate channels.

7.3 I/M Program Station to hold Department Harmless

7.3.1 In making application for a permit or for its renewal, such action shall constitute a declaration by the applicant that the Department shall be held harmless from liability incurred due to action or inaction of I/M Program Station's owners or their employees.

7.4 An I/M Program Station shall be kept in good repair and in a safe condition for inspection purposes free of obstructions and hazards.

8.0 TRAINING AND CERTIFICATION OF INSPECTORS

8.1 Certified Emissions Inspector Certification Required.

8.1.1 No person shall perform any part of the inspection for the issuance of a Certificate of Compliance unless the person possesses a valid Certified Emissions Inspector Certification issued by the Department.

8.1.2 Applications for a Certified Emissions Inspector Certification shall be made upon an application form prescribed by the Department. No certification shall be issued unless:

8.1.2.1 The applicant has shown adequate competence by successfully completing the written and practical portions

of the Certified Emissions Inspector Certification requirements as specified in this Regulation; and

8.1.2.2 The applicant has paid the required permit fees as set by the Board and referenced in Appendix A of this Regulation.

8.1.3 An applicant shall comply with all of the terms stated in the application and with all the requirements of this Regulation.

8.1.4 An applicant shall complete a Department approved training course and shall demonstrate knowledge and skill in the performance of emission testing and use of the test equipment. Such knowledge and skill shall be shown by passing at minimum:

8.1.4.1 Operation and purposes of emission control systems;

8.1.4.2 Inspection procedures as outlined in this Regulation and prompted by the test equipment;

8.1.4.3 Operation of the Certified Testing Equipment including the performance of gas calibration and leak check;

8.1.4.4 The provisions of Section 207(b) warranty provisions of the Federal Clean Air Act, and other federal warranties;

8.1.4.5 The provisions of this Regulation and other applicable Department policies and procedures; and

8.1.4.6 A performance qualification test including but not limited to the following:

(a) Visual inspection and knowledge of the required emission control equipment;

(b) Demonstration of skill in proper use, care, maintenance, calibration, and leak testing of the Certified Testing Equipment;

(c) Demonstration of ability to conduct the inspection; and

(d) Demonstration of ability to accurately enter data in the test equipment.

8.1.5 A signed hands-on performance check sheet shall be necessary for successful completion of the performance qualification test. The hands-on

performance check sheet shall be signed by an instructor or other equally qualified person approved by the Department.

8.1.6 The Department shall issue a Certified Emissions Inspector Certificate to an applicant upon successful completion of the requirements of this section.

8.1.7 The Certified Emissions Inspector Certificates are and remain the property of the Department, only their use and the license they represent is tendered.

8.1.8 Certified Emissions Inspector Certifications shall not be transferred from one person to another person.

8.2 Recertification Requirements for Certified Emissions Inspectors

8.2.1 The Department may renew certifications for an existing Certified Emissions Inspector after a properly completed renewal form is submitted, reviewed, and approved, the recertification requirements have been completed, the fees are paid and the Certified Emissions Inspector has complied with this Regulation.

8.2.2 Certified Emissions Inspectors shall be required to recertify annually. Failure to recertify shall result in suspension or revocation of the Certification as described in this Regulation.

8.2.3 Certified Emissions Inspectors shall complete a Department approved refresher course every 2 years. Applicants for recertification shall complete a Department approved refresher course no more than sixty days prior to the date of expiration. Applicants shall demonstrate knowledge and skill in the performance of emission testing and use of the test equipment.

8.3 Certification Expiration

8.3.1 The Certified Emissions Inspector Certification shall be issued annually and shall expire on the last day of the month one year from the month of issue. The certification shall be renewable sixty days prior to the date of expiration.

8.3.2 It is the responsibility of the Certified Emissions Inspector to pursue the renewal of the Certification.

8.4 Certified Emissions Inspector Certification Suspension and Revocation

8.4.1 Certified Emissions Inspector Certifications may be suspended or revoked by the Department for violations of this Regulation.

8.4.2 Suspension or revocation of Certified Emissions Inspector Certifications shall follow the provisions of Appendix C of this Regulation.

9.0 INSPECTION PROCEDURE

9.1 The official emissions inspection shall be solely performed by a Certified Emissions Inspector at an I/M Program Station and Department approved inspection procedures are to be followed.

9.2 The Certified Emissions Inspector shall verify the vehicle license plate and vehicle identification numbers by comparing the information on the vehicle's registration with those on the vehicle and shall accurately record them on the inspection test equipment.

9.2.1 The Certified Emissions Inspector shall verify the owner's name and address and enter this information into the test equipment. The Certified Emissions Inspector shall determine and enter the county in which the vehicle is registered.

9.2.2 The Certified Emissions Inspector shall enter completely and accurately all the information required as part of the data entry procedure for the official vehicle emissions test on the approved test equipment.

9.3 A complete official test must be performed any time an inspection is requested. Do not perform any part of the inspection without initiating an official test on the test equipment.

9.4 The Certified Emissions Inspector shall perform the official vehicle emissions test using the proper testing procedure:

9.4.1 All gasoline, and natural gas powered light-duty (8,500 lbs or less) OBDII compliant vehicles, model year 1996 and newer shall be tested as specified in Appendix D, OBDII Test Procedures.

9.4.2 All gasoline and natural gas powered vehicles model year 1995 and older shall be tested as specified in Appendix D, Two-Speed Idle Test Procedures.

9.4.3 All gasoline and natural gas powered vehicles model year 1996 to 2007 with a GVW greater than 8,500 lbs shall be tested as specified in Appendix D, Two-Speed Idle Test Procedures.

9.4.4 All gasoline and natural gas powered vehicles model year 2008 and newer with a GVW greater than 8,500 lbs and GVW less than 14,000 lbs shall be tested as specified in Appendix D, OBDII Test Procedures.

9.4.5 All gasoline and natural gas powered vehicles model year 2008 and newer with a GVW greater than 14,000 lbs shall be tested as specified in Appendix D, Two-Speed Idle Test Procedures.

9.4.6 All diesel powered vehicles model year 1998 and newer shall be tested as specified in Appendix D, Diesel Test Procedures.

9.5 Retesting Procedures

9.5.1 If the vehicle fails the initial emissions inspection, the owner/operator shall have fifteen calendar days in which to have repairs or adjustments made and return the vehicle to the I/M Program Station that performed the initial inspection for one (1) free re-inspection. In order to be in compliance, the vehicle that failed the initial test shall meet the following conditions:

9.5.1.1 The vehicle is re-tested; and

9.5.1.2 The vehicle emissions levels are the same or less than the applicable cutpoint standards.

9.6 Certificate of Waiver

9.6.1 A Certificate of Waiver may be issued for 1969 to 1989 model year vehicles if all of the following requirements are met:

9.6.1.1 Air pollution control devices identified in the emission decal are in place and operable on the vehicle. If the decal is missing, at a minimum, the catalytic converter, PCV System, and AIR system are in place and operable on the vehicle. If the devices have been removed or rendered inoperable, they shall be replaced or repaired before a Certificate of Waiver is granted; and

9.6.1.2 The vehicle continues to exceed applicable cutpoint standards after $200.00 of acceptable emissions related repairs have been performed. Proof of repair costs shall be provided for the vehicle to the Department in the form of an itemized bill, invoice, work order, manifest, or statement in which emissions related parts are specifically identified. If repairs are made by someone with ASE L1, ASE A8, or another certification approved by the Department, the cost of labor may be included in the $200.00

9.6.2 A Certificate of Waiver may be issued for 1990 through 1995 model year vehicles if all of the following requirements are met:

9.6.2.1 Air pollution control devices identified in the emission decal are in place and operable on the vehicle. If the decal is missing, at a minimum, the AIR System, catalytic converter, EGR System, Evaporative Control System, PCV System, and gas tank cap are in place and operable on the vehicle. If the devices have been removed or rendered inoperable, they shall be replaced or repaired before a Certificate of Waiver is granted; and

9.6.2.2 The vehicle continues to exceed applicable cutpoint standards after $200.00 of acceptable emissions related repairs have been performed. Proof of repair costs shall be provided for the vehicle to the Department in the form of an itemized bill, invoice, work order, manifest, or statement in which emissions related parts are specifically identified. If repairs are made by someone with ASE L1, ASE A8, or another certification approved by the Department, the cost of labor may be included in the $200.00

9.6.3 A Certificate of Waiver may be issued for 1996 and newer model year vehicles if all of the following requirements are met:

9.6.3.1 Air pollution control devices identified in the emission decal are in place and operable on the vehicle. If the devices have been removed or rendered inoperable, they shall be replaced or repaired before a Certificate of Waiver is granted; and

9.6.3.2 At least $200.00 has been spent on acceptable emissions related repair costs for that specific vehicle, and if proof of repair costs for that specific vehicle have been provided to the Department in the form of an itemized bill, invoice, work order, manifest, or statement in which emissions related parts are specifically identified. If repairs are made by someone with ASE L1, ASE A8, or another certification approved by the Department, the cost of labor may be included in the $200.00

9.6.3.3 The vehicle is not within the time and mileage requirements of the federal emissions warranties. Any vehicle that is within time and mileage requirements of the federal emissions warranties shall not be eligible for an emissions repair waiver, but shall be repaired to pass the testing requirements.

9.6.4 As used in Sections 9.6.1, 9.6.2, and 9.6.3, acceptable emissions related repairs:

9.6.4.1 Refers to those expenditures and costs associated with the adjustment, maintenance, and repair of the motor vehicle which are directly related to reduction of exhaust emissions necessary to comply with the applicable emissions standards, and procedures, and/or repairs to the evaporation vapor recovery system;

9.6.4.2 Does not include adjustments, maintenance, or repairs performed prior to the official emissions test;

9.6.4.3 Does not include the fee paid for the test;

9.6.4.4 Does not include costs associated with the repairs or replacements of air pollution control equipment on the vehicle if the need for such adjustment, maintenance, replacement, or repair is due to disconnection of, tampering with, or abuse of the emissions control systems;

9.6.4.5 Does not include repairs performed to the vehicle's exhaust system to correct problems with excessive exhaust dilution;

9.6.4.6 Refers to repairs, maintenance, and diagnostic evaluations done in accordance with manufacturer's specifications, to the extent that the purpose is to reduce emissions.

9.6.5 Information regarding all performed repairs shall be entered into the appropriate data base of the test equipment prior to the vehicle being retested.

9.6.6 Certificates of Waiver shall only be issued by the Department unless the Department determines other acceptable methods of issuing the waivers. A waiver shall only be issued after determining that the vehicle complies with the requirements of this Section for waiver issuance.

9.6.7 Prior to referring the owner/operator to the Department for determining waiver eligibility, the I/M Program Station and the Certified Emissions Inspector shall verify that the repair and eligibility requirements of this Section have been met.

9.6.8 A Certificate of Waiver shall only be issued once to any vehicle that qualifies, throughout the lifetime of the vehicle.

10.0 ENGINE SWITCHING

10.1 Engine switching shall be allowed only in accordance with EPA policy.

10.2 Vehicles not meeting the requirements of Section 10.0 shall be deemed as tampered and are not eligible for a Certificate of Waiver, unless they are restored to the original engine and emission control configuration.

11.0 SPECIFICATIONS FOR CERTIFIED TESTING EQUIPMENT AND CALIBRATION GASES

11.1 Approval of Certified Testing Equipment

11.1.1 Certified Testing Equipment shall meet the specifications as detailed in Appendix E.

11.1.2 It shall be illegal for any person to modify the hardware or software of approved emissions test equipment without written application and formal approval by the Department.

11.1.3 It shall be illegal for any person to gain access to any Department controlled portions of an approved test equipment without approval by the Department.

11.2 Calibration Gases

11.2.1 General: The approved vendor shall, on request, supply at a reasonable cost to the I/M Program Station, calibration gases approved by the Department. The approved vendor shall have approved, full calibration gas containers installed and operational at the time of delivery. The Department shall establish necessary procedures for approving calibration gases.

11.2.2 Calibration Gas Blends: The calibration gases supplied to any I/M Program Station shall conform to the specifications of the Department as specified in Appendix E. All calibration gases shall meet all Federal requirements for the emissions warranty coverage. Only gas blends supplied by Department approved blenders shall be used to calibrate official Analyzers.

11.3 Warranty and Maintenance Requirements

11.3.1 It shall be the responsibility of the I/M Program Station to obtain warranty coverage for testing equipment supplied by the approved vendor. Coverage requirements will be determined by the Department.

11.3.2 The testing equipment shall be maintained in accordance with the manufacturer's recommended maintenance schedule and records of this maintenance service shall be maintained for examination by the Department.

11.4 Gas Calibration and Leak Check:

Gas calibrations and leak checks shall be performed in accordance with the schedule referenced in Appendix E.

12.0 QUALITY ASSURANCE

12.1 A quarterly inspection and audit shall be made by a representative of the Department to verify compliance with this Regulation for each I/M Program Station.

12.1.2 During the time of the inspection and audit by the Department, the Department representative shall have exclusive access to the test equipment.

12.1.3 Required tools and equipment as noted in Section 7.1.5, shall be kept at the I/M Program Station at all times and shall be available for inspection by the Department at any time the inspection station is open for business.

12.2 An annual covert inspection and audit shall be made by a representative of the Department to verify compliance with this Regulation for each I/M Program Station.

12.3 The Department may increase the frequency of inspections and audits for I/M Program Stations and/or Certified Emissions Inspectors if the Department receives information of a violation of this Regulation.

12.4 The Department shall regularly monitor I/M Program Stations and/or Certified Emissions Inspectors through inspection records and/or technology integrated into the Certified Test Equipment.

13.0 CUTPOINT STANDARDS FOR MOTOR VEHICLES EXHAUST GASES

In order to obtain a valid emissions Certificate of Compliance, exhaust emissions from a motor vehicle subject to an biennial exhaust gas emission inspection shall not exceed the

maximum concentrations for carbon monoxide (CO) and hydrocarbons (HC) as specified in Appendix B.

14.0 DISCIPLINARY PENALTIES AND RIGHT TO APPEAL

14.1 When the Department, or its representative(s), receives information of a violation of any regulation contained herein which may result in a permit denial, revocation, or suspension, the Department shall notify the affected entity, in writing, informing the entity of the violation and penalties to be enforced. The affected entity may request a hearing within ten calendar days of the Department giving notice of the potential permit denial, revocation, or suspension. Only a written request for a hearing shall be honored by the Department. No appeal may be made on a formal warning.

14.1.1 In considering the appropriate administrative action to be taken as indicated in Appendix C, the Director shall consider the following:

14.1.1.1 whether the violation was unintentional or careless;

14.1.1.2 the frequency of the violation or violations;

14.1.1.3 the audit and covert audit history of the I/M Program Station and the Certified Emissions Inspector;

14.1.1.4 whether the fault lies with the I/M Program Station or the Certified Emissions Inspector.

14.1.2 After consideration of the factors in Section 14.1.1 the Director may take appropriate administrative action as indicated in Appendix C against either the I/M Program Station, the Certified Emissions Inspector, or both.

14.2 Appeals Hearing Procedure:

14.2.1 An appeals hearing shall be held at the request of the affected entity in order to determine the accuracy of information obtained by the Department and whether there are mitigating factors which would justify a reduction of the imposed penalties.

14.2.2 The requesting party may bring to the hearing any witnesses and any evidence believed to be pertinent to the disciplinary action.

14.2.3 The appeal shall be heard by the Vehicle Inspection and Maintenance Appeal Board, hereafter I/M Board, consisting of at least three persons, who are not employees of Bear River Health Department, appointed by the Board. The I/M Board shall have the discretion to determine which witnesses shall be heard and what evidence is relevant.

14.2.4 Violations determined to be intentional or flagrant shall result in the maximum enforcement of the penalty schedule pursuant to Appendix C.

14.2.5 In considering whether to reduce a penalty indicated by Appendix C, the I/M Board and the Department shall consider the following:

14.2.5.1 whether the violation was unintentional or careless;

14.2.5.2 the frequency of the violation or violations;

14.2.5.3 the audit and covert audit history of the I/M Program Station and the Certified Emissions Inspector;

14.2.5.4 whether the fault lies with the I/M Program Station, the Certified Emissions Inspector, or both.

14.3 Written notice of the final determination of the I/M Board, including the I/M Board's finding under Section 14.2.5, shall be made within ten calendar days after the conclusion of the appeals hearing.

15.0 PENALTY

15.1 Any person who is found guilty of violating any of the provisions of this Regulation, either by failing to do those acts required herein or by doing a prohibited act, shall be guilty of a class B misdemeanor pursuant to Section 26A-1-123, Utah Code Annotated, 1953, as amended. If a person is found guilty of a subsequent similar violation within two years, he shall be guilty of a class A misdemeanor pursuant to Section 26A-1-123, Utah Code Annotated, 1953, as amended.

15.2 Each day such violation is committed or permitted to continue shall constitute a separate violation.

15.3 The county attorney may initiate legal action, civil or criminal, requested by the Department to abate any condition that exists in violation of this Regulation.

15.4 In addition to other penalties imposed by a court of competent jurisdictions, any person(s) found guilty of violating any of this Regulation shall be liable for all expenses incurred by the Department.

15.5 A Penalty Schedule for permit warning, suspension, or revocation is adopted as Appendix A and may be amended by the Board as the Board deems necessary to accomplish the purposes of this Regulation.

16.0 SEVERABILITY

If any provision, clause, sentence, or paragraph of this Regulation or the application thereof to any person or circumstances shall be held to be invalid, such invalidity shall not affect the other provisions or applications of this Regulation. The valid part of any clause, sentence, or paragraph of this Regulation shall be given independence from the invalid provisions or application and to this end the provisions of this Regulation are hereby declared to be severable.

17.0 EFFECTIVE DATE

This Regulation shall become effective on May 9, 2013 as adopted by the Bear River Board of Health.

M. Lynn Hellon

Appendix A

Fee Schedule

Permitting of an official I/M Program Station	$250.00
Annual Renewal of I/M Program Station	$50.00
Expired I/M Program Station Renewal	$75.00
I/M Program Station Re-location	$75.00
Permitting of a Certified Emissions Inspector	$25.00
Renewal of Certified Emissions Inspector	$15.00
Expired Certified Emissions Inspector Renewal	$25.00
Official Station Sign	Cost
APC Fee for 12 month registration	$3.00
APC Fee for 6 month registration	$2.25
Emissions Inspection Fee – OBD Test	$15.00
Emissions Inspection Fee – TSI and Tampering	$20.00

APPENDIX B

BEAR RIVER HEALTH DEPARTMENT
EMISSION STANDARDS
CUTPOINTS

MOTOR VEHICLE EMISSIONS INSPECTION/MAINTENANCE PROGRAM

The following schedule gives the maximum allowable concentrations for carbon monoxide (CO) and hydrocarbons (HC) for both cars and trucks as determined by an approved infrared gas analyzer using the prescribed procedures. The effective date for these cutpoints is January 1, 2014.

ALL PASSENGER VEHICLES
1978 AND OLDER LIGHT DUTY TRUCKS 6,000 POUNDS GVWR OR LESS
1979 TRUCKS AND NEWER 8,500 POUNDS GVWR OR LESS
MAXIMUM CONCENTRATION STANDARDS

MODEL YEAR	PERCENT CARBON MONOXIDE	PARTS/MILLION HYDROCARBONS
1968-1969	6.0	800
1970-1974	5.0	700
1975-1976	4.0	600
1977-1979	3.0	500
1980	2.0	300
1981-1995	1.2	220
1996 and newer	N/A – OBD II	N/A – OBD II

HEAVY DUTY TRUCKS AND VANS
1978 AND OLDER 6,001 AND OVER GVWR
1979 AND NEWER OVER 8,500 GVWR
MAXIMUM CONCENTRATION STANDARDS

1968-1969	7.0	1500
1970-1978	5.0	1200
1979-1980	4.0	1000
1981 and newer	3.5	800

The minimum dilution factor must also be reached as part of the testing requirement. The dilution factor determination is contained in the analyzer specifications provided by the approved vendor.

NOTE: These should be considered as "cutpoints" for maximum allowable emissions levels. Vehicles must never be reset to these emission levels when readjustments are made, but rather shall be adjusted using manufacturer's specifications. By using manufacturer's specifications, the emissions levels should be well below the "cutpoints."

APPENDIX C – PENALTY SCHEDULE

Violation (resets after 2 years of no similar violations unless revoked)	**1st Occurrence**	**2nd Occurrence**	**3rd Occurrence**	**4th Occurrence**
Failure to inspect or substituting a vehicle other than the vehicle on the test record *(intentional pass)*	Tech: 180 day suspension and mandatory retraining	Tech: Revocation of permit for up to 5 years		
	Station: 180 day suspension	Station: 270 day suspension	Station: Revocation of inspection station permit for up to 5 years	
Passing a failing vehicle or recording pass for tampering on a tampered vehicle *(gross negligence)*	Tech: 30 day suspension and mandatory retraining	Tech: 60 day suspension and mandatory retraining	Tech: Revocation of permit for up to 5 years	
	Station: 15 day suspension	Station: 30 day suspension	Station: 60 day suspension	Station: Revocation of permit for up to 5 years
Falsifying an inspection record or emissions certificate or Failing a passing vehicle *(intentional)*	Tech: 180 day suspension and mandatory retraining	Tech: Revocation of permit for up to 5 years		
	Station: 180 day suspension	Station: 270 day suspension	Station: Revocation of inspection station permit for up to 5 years	
Non-certified person performing test *(gross negligence table)*	Tech: 60 day suspension	Tech: 180 day suspension	Tech: Revocation of permit for up to 5 years	
	Station: 60 day suspension	Station: 180 day suspension	Station: Revocation of inspection station permit for up to 5 years	
Inaccurate or incomplete data entry *(incompetence)*	Tech: Formal warning and mandatory retraining	Tech: 30 day suspension and mandatory retraining	Tech: 90 day suspension and mandatory retraining	Tech: Revocation of permit for up to 5 years
	Station: Formal warning	Station: 15 day suspension	Station: 45 day suspension	Station: Revocation of inspection station permit for up to 5 years
Failure to follow proper test procedures *(incompentence)*	Tech: Formal warning and mandatory retraining	Tech: 30 day suspension and mandatory retraining	Tech: 90 day suspension and mandatory retraining	Tech: Revocation of permit for up to 5 years
	Station: Formal warning	Station: 15 day suspension	Station: 45 day suspension	Station: Revocation of inspection station permit for up to 5 years

Appendix D – Test Procedures

OBDII Test Procedures

On-Board Diagnostics (OBD) is the monitoring and fault detection/notification process of the Powertrain Control Module (PCM) related to the vehicle's emission control system and powertrain operation on 1996 and newer model year vehicles. When an emissions control malfunction is detected, a dashboard light illuminates, displaying one of the following: "Check Engine," "Service Engine Soon," or the international engine symbol. If the OBD system detects a problem that may cause vehicle emission to exceed applicable federal standards, the Malfunction Indicator Light (MIL) is illuminated and the appropriate diagnostic trouble code (DTC) and engine operating conditions will be stored in PCM memory.

1.0 Locate the Diagnostic Link Connector (DLC) on the vehicle being tested. Connect the vehicle to the test equipment.

1.1 If the DLC is missing, has been tampered with, or is otherwise inoperable, the vehicle fails the test and shall be repaired.

1.2 If the DLC is unaccessible, the problem must be remedied before the test can continue.

2.0 Turn the ignition switch to the off position for at least 30 seconds.

3.0 Visually examine the instrument panel to determine if the malfunction indicator light (MIL) illuminates, at least briefly, when the ignition key is turned to the "key on, engine off" (KOEO) position. Enter your visual inspection result into the test equipment.

3.1 If the MIL does not illuminate, the vehicle fails the test and must be repaired.

4.0 Turn the ignition switch to the off position for at least 30 seconds.

5.0 Start the engine so the vehicle is in the "key on, engine running" (KOER) condition and follow the test equipment screen prompts until the test is complete.

6.0 For 1996-2000 model year vehicles two (2) not ready flags are allowed for a passing test. For 2001 and newer vehicles one (1) not ready flag is allowed. If the not ready status exceeds these numbers the vehicle must be driven additional miles until readiness monitors are set "ready" or repairs have been made allowing readiness flags to set ready.

7.0 If the MIL is commanded on while the engine is running, regardless of Diagnostic Trouble Codes (DTC's), the vehicle will fail the test and will require repairs.

8.0 Certain vehicles have been determined by the EPA to be OBDII deficient. The test equipment software will maintain a list of these vehicles and perform a modified OBDII test.

9.0 A Certificate of Compliance will be issued if the vehicle meets the requirements established in this section.

Two-Speed Idle (TSI) Test Procedures

During a two-speed idle test, the Analyzer measures the tailpipe exhaust emissions of a vehicle while the vehicle idles at both high and low speed. The Analyzer tests vehicles for carbon dioxide in addition to hydrocarbons and carbon monoxide. The two-speed idle test comprises two phases: (1) high speed test (2200-2800 RPMs) for the first phase of the emissions test; then, (2) tested at idle (350-1100 RPMs).

1.0 The Certified Emissions Inspector shall not inspect or test any motor vehicle with a mechanical condition which may cause injury to inspection personnel or damage to the inspection station or test equipment or which may affect the validity of the test, until such condition is corrected. Such conditions include, but are not limited to: coolant, oil, or fuel leaks; low oil or low fluid levels; and high visible emissions.

2.0 Prepare the Analyzer for testing as specified by the manufacturer.

3.0 Each vehicle shall be checked to determine that it is at normal operating temperature by feeling the top radiator hose or by checking the temperature gauge. Each vehicle shall be at normal operating temperature before performing the emissions inspection.

4.0 The inspection shall be performed with the transmission in “park” or “neutral” and with all accessories off and the emergency brake applied**.**

5.0 The Analyzer probe shall be inserted into the exhaust pipe at least twelve inches or as recommended by the Analyzer manufacturer, whichever is greater.

6.0 If a baffle or screen prevents probe insertion of at least twelve inches, a suitable probe adapter or snug fitting, non-reactive hose which effectively lengthens the exhaust pipe shall be used.

7.0 For all vehicles equipped with a multiple exhaust system that does not originate from a common point, both sides shall be tested simultaneously with an approved adapter.

8.0 When inspecting a vehicle under windy conditions, the tailpipe shall be shielded from the wind with a suitable cover.

9.0 With the tachometer properly attached, the vehicle shall be tested by following the screen prompts, answering questions, and entering required data. Vehicles failing because of excessive exhaust dilution shall repair the dilution problem prior to continuing the emission test. The dilution standard shall be contained in the Analyzer specifications provided by the approved vendor.

10.0 The Certified Emissions Inspector shall verify the presence of a gas cap and enter the information into the Analyzer.

11.0 Certain vehicles cannot be tested in the high speed (2200-2800 RPM) mode. The test equipment software will maintain a list of these vehicles and perform a modified test.

12.0 A Certificate of Compliance shall be issued if the vehicle emissions levels are the same as or less than the applicable cutpoint standards as referenced in Appendix B, and the vehicle has a gas cap present.

Diesel Powered Vehicles Test Procedures

1.0 All diesel powered vehicles 2007 and newer shall be tested in accordance with the following procedure:

1.1 Locate the Diagnostic Link Connector (DLC) on the vehicle being tested. Connect the vehicle to the test equipment.

1.1.1 If the DLC is missing, has been tampered with, or is otherwise inoperable, the vehicle fails the test and shall be repaired.

1.1.2 If the DLC is unaccessible, the problem must be remedied before the test can continue.

1.2 Turn the ignition switch to the off position for at least 30 seconds.

1.3 Visually examine the instrument panel to determine if the malfunction indicator light (MIL) illuminates, at least briefly, when the ignition key is turned to the “key on, engine off” (KOEO) position. Enter your visual inspection result into the test equipment.

1.3.1 If the MIL does not illuminate, the vehicle fails the test and must be repaired.

1.4 Turn the ignition switch to the off position for at least 30 seconds.

1.5 Start the engine so the vehicle is in the “key on, engine running” (KOER) condition and follow the test equipment screen prompts until the test is complete.

1.6 If the vehicle has 1 or more monitors “not ready”, follow the attached flowchart to determine whether the readiness check will be marked as pass or fail.

1.7 If the MIL is commanded on while the engine is running, regardless of Diagnostic Trouble Codes (DTC’s), the vehicle will fail the test and will require repairs.

1.8 Certain vehicles have been determined by the EPA to be OBDII deficient. The test equipment software will maintain a list of these vehicles and perform a modified OBDII test.

1.9 A Certificate of Compliance will be issued if the vehicle meets the requirements established in this section.

2.0 All diesel powered vehicles 1998-2006 shall be subject to a visual anti-tampering inspection. The air pollution control devices identified in the emission decal shall be in place and apparently operable on the vehicle. If the decal is missing the vehicle owner/operator shall have the decal replaced before the inspection can continue.

2.1 The devices listed on the decal must be present and apparently operable to pass the emission inspection.

2.2 If the OBD II system is identified in the emission decal, the procedure in Section 1.1 through 1.5 shall be followed.

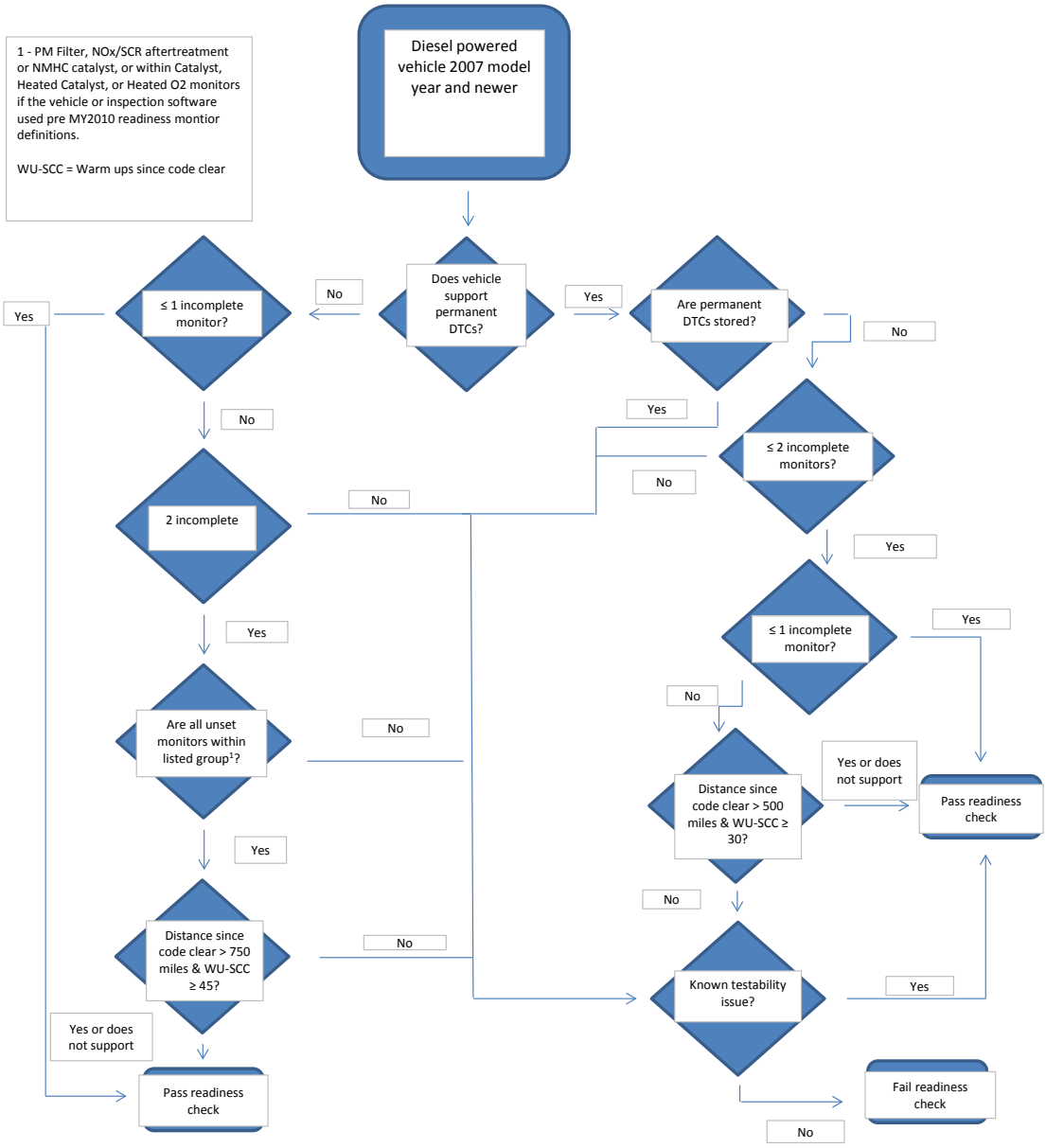
2.3 If the decal is missing and is no longer available for replacement the vehicle owner/operator shall provide written documentation to the Department stating such. Approved documentation shall come from an authorized dealer or manufacturer of the vehicle in question.

2.3.1 If the emissions decal is missing and the vehicle meets the requirements of Section 2.3, the following emissions control devices should be present and apparently operable if factory equipped:

Catalyst;
Exhaust Gas Recirculation System (EGR);
Diesel Particulate System (DPF);
Air Injection Reaction System (AIR);
Urea System (SCR); and
OBD II System.

2.4 A Certificate of Compliance shall be issued if the emissions control devices are in place and apparently operable. An inspection of the OBD II system as referenced in Section 2.2 shall be for informational purposes only and will not determine whether a vehicle passes or fails the emission inspection.

Diesel Readiness Check Flowchart



Appendix E - Technical Specifications and Calibration Gas

1.0 GENERAL

This appendix contains specifications for Emission Inspection System Contractors (hereafter, Contractors) to design Testing Equipment to be used in the Cache County Vehicle Emissions Inspection and Maintenance Program (hereafter, I/M Program). Testing Equipment to be used in the I/M Program must be capable of performing consistent Two-Speed Idle (TSI), and On-Board Diagnostics (OBD) emissions inspections.

1.1 Design Goals

Testing Equipment must be designed and constructed to provide reliable and accurate service in the automotive service environment and have a useful life of at least five years. The software must be designed for maximum operational simplicity and be capable of providing emissions readings or codes that can be used for vehicle diagnostics. A manual, non-test mode should be available to perform vehicle diagnostics. The software must prevent users from clearing Diagnostic Trouble Codes, changing readiness status, or performing other actions that could change the results of an official emissions test. In addition, the Testing Equipment must include security measures that will prevent unauthorized modifications to the software or inspection data, record unauthorized entry, also known as tampering, and prevent subsequent inspections when tampering is detected.

These technical specifications contain the minimum requirements for Testing Equipment used to perform emissions inspections in the I/M Program. Contractors may include additional items with approval from the Bear River Health Department (hereafter, the Department).

1.1.1 Identification Data

A nameplate including the following information must be permanently affixed to the housing of the Testing Equipment:

- Name and address of manufacturer;
- Model description;
- Serial number; and
- Date of assembly.

In addition, the Contractor shall affix a label to the housing of the Testing Equipment that contains a toll-free telephone number for customer service. This telephone number must also be displayed on error messages that recommend the need for service by the manufacturer.

The Testing Equipment must also electronically display:

- Nameplate data;
- Testing Equipment number; and
- Propane Equivalency Factor (PEF).

1.2 Manuals

All Testing Equipment sold or leased by the Contractor must be provided with a current copy of a manual that contains, at a minimum, operating instructions, maintenance instructions, and initial startup instructions. The manual may be provided in an electronic format and should be accessible from the Testing Equipment.

1.3 Certification Requirements

The Contractor shall submit a letter to the Department stating that the Testing Equipment model sold or leased by the Contractor or its authorized representatives satisfies all design and performance criteria described in these specifications. Unless otherwise specified, a copy of the software documentation listed below must be submitted to the Department as part of the certification application. The documentation must include, at a minimum, the following:

- Complete program listing(s);
- Functional specifications;
- Functional flowcharts of the software;
- Example inputs and outputs from all processes;
- Detailed interface information on system components including the identification of protocol and output specifications; and
- File layouts.

To ensure proper maintenance of all Testing Equipment, a full description of the Contractor's service procedures and policies, sample contracts, warranties, and extended service agreements must be provided as part of the certification application. The Contractor shall provide a training plan to the Department that will be used to conduct certification training of potential inspectors on the use of the Testing Equipment. The Contractor shall supply to the Department and maintain at least one piece of Testing Equipment.

1.3.1 Escrow of Software

The Contractor must submit a letter of corporate authorization agreeing to place software source codes and other pertinent technical information in an escrow placement approved by the Department. The Contractor shall contract with the approved escrow company and provide the Department with a copy of the contract including the Department as a beneficiary. Certification of the Testing Equipment will not be valid until this condition has been met.

The Contractor must place in escrow the most recent version of the Testing Equipment software, including but not limited to, the actual software code and related materials

used to meet this specification. The software will be turned over to the Department only if the Contractor defaults or cannot ensure continued performance of the contract.

In the event that the software is transferred, the Department shall protect it from public dissemination and commercial usage to the extent required by law. The software may be used, maintained, and updated by the Department, or its assignee, to support the I/M Program. At a minimum, the Department shall:

- Limit source code access to parties necessary to maintain and update the analyzers;
- Require all parties to sign a non-disclosure agreement before obtaining access to the code; and
- Grant no license permitting an entity to use any part of the codes for any commercial purpose other than to update and operate the analyzers.

The Department is not interested in the disclosure of proprietary information or the detailed inner workings of the software. However, it is essential that the software, schematics, and drawings be available in case the Contractor defaults.

As a prerequisite to certification, the Contractor shall furnish a performance bond to the Department. This bond must be in a form approved by the Department, executed as a surety by a bonding company authorized to do business in the State of Utah, and signed by a licensed resident agent. The performance bond must be for $250,000 and must remain valid for the entire time period that the Contractor participates in the I/M Program. The performance bond must cover all Testing Equipment that is certified to conduct emissions inspections in the I/M Program.

The performance bond may be used by the Department at any time if the Contractor is in default of the requirements of these specifications, including but not limited, to the following “Events of Default”:

A. The Contractor fails to remedy a breach of covenant, representation, or warranty required by these specifications within thirty (30) days after written notice of such breach has been given to the Contractor by the Department;
B. The Contractor makes a general assignment for the benefit of creditors, admits in writing its inability to pay debts as they mature, institutes proceedings to be adjudicated upon voluntary bankruptcy, consents to the filing of a bankruptcy proceeding against it, files a petition or answer or consent seeking reorganization, readjustment, arrangement, composition, or similar relief under federal bankruptcy or any other similar applicable law(s), consents to the filing of any such petition, consents to the appointment of a receiver, liquidator, trustee, or assignee in bankruptcy or insolvency of the manufacturer or a substantial part of its property, or takes action to further any of these purposes; or
C. A court of competent jurisdiction enters a decree or order adjudging the Contractor as bankrupt or insolvent, or approving a properly filed petition seeking

reorganization, readjustment, arrangement, composition, or similar relief for the Contractor under the federal bankruptcy or any other similar applicable law(s), and such decree or order is not discharged or stayed continuously for a period of sixty (60) days; or a decree or order of a court of competent jurisdiction for the appointment of a receiver, liquidator, trustee or assignee in bankruptcy or insolvency of the manufacturer or of a substantial part of its property, or for the liquidation of its affairs, is entered, and such decree or order is not discharged or stayed continuously for a period of sixty (60) days; or any substantial part of the property of the Contractor is sequestered or attached and is not returned to the Contractor or released from such attachment within sixty (60) days thereafter.

To require performance by the surety under the performance bond, the Department shall give written notice of the event of default to the Contractor, specifying the date upon which the surety performance must begin.

The Director or his designee shall release the performance bond once it is determined that the Contractor has satisfactorily completed its obligations in accordance with the terms of these specifications, or at an earlier date, if it is determined by the Director to be in the best interest of the Department.

1.4 Warranty Coverage and Extended Service Agreements

A written warranty coverage agreement, signed by an authorized representative of the Contractor and the I/M Program Station, which provides a complete description of coverage for all systems and components and all Contractor provided services listed below in Contractor Provided Services, must accompany the sale or lease of each unit of Testing Equipment.

The original manufacturer's warranty must be a minimum of one year from the date of purchase. An extended warranty service agreement must be available to the Testing Equipment owner upon the expiration of the manufacturer's original warranty period. Cost disclosures of consumable inventory items and extended warranty service agreements with detailed descriptions of coverage must be available to all Testing Equipment owners.

The cost of extended warranty service agreements must be identified in the Contractor's response to the RFP

1.5 Contractor Provided Services

A Contractor-authorized repair technician is a Testing Equipment service technician that is authorized by the Contractor to perform service on their fleet of Testing Equipment. Only Contractor-authorized repair technicians may access the secure areas on the Testing Equipment.

The Contractor-authorized repair technician shall perform a gas calibration prior to returning an Analyzer to service whenever a component of the emissions measurement system is repaired or replaced. Similarly, the Contractor-authorized repair technician shall perform a leak check each

time the Analyzer's sample line is broken and repaired. Contractor-authorized repair technicians shall have software driven menu options or other acceptable method that records the transfer of inspection station, inspector information, and other data from one unit of Testing Equipment to another without manual inputs or the transfer of previous data.

The Department may require the Contractor to conduct on-site or laboratory testing of the Testing Equipment in order to document continued compliance. The Contractor shall supply the I/M Program Station a temporary replacement unit of Testing Equipment that meets the I/M Program requirements if a unit of Testing Equipment is removed from the I/M Program Station for repair or testing. The Contractor shall be responsible for any costs incurred under this requirement.

The Contractor shall correct software features that do not meet these specifications to the satisfaction of the Department. The enhancement of operational software must be specified by the Department and be designed to update through the internet. Unless authorized by the Department, software enhancements must be available for beta testing within 120 days of commencement of a software update contract and receipt of an updated Testing Equipment specification. The Contractor shall not modify any existing Testing Equipment software without obtaining approval from the Department.

The Contractor shall be responsible for training Department officials responsible for oversight of the I/M Program, including but not be limited to, the instruction on all operational, maintenance, and quality control features of the Testing Equipment sampling system, full access to and use of inspection, audit, and calibration menus, and optional programs offered to inspectors. This training must be conducted at the Contractor's expense as a condition of certification, and upon written request by the Department.

The Contractor shall provide the following services to the I/M Program Station as part of any sale, lease, or loan of Testing Equipment:

- Delivery, installation, calibration, and verification of the proper operating condition of the Testing Equipment;
- Two extra sample filters with each TSI Analyzer, and an additional printer cartridge or a certificate redeemable for a printer cartridge for all Testing Equipment;
- A minimum of two hours operation and maintenance training to the owners and operators for each unit of Testing Equipment purchased or leased.

The Contractor shall provide the following services to the I/M Program Station as part of the manufacturer's original warranty and thereafter as a portion of the extended warranty service agreement.

- Full systems support and repair, including temporary provision of units of equal quality and specification;

- Quarterly examination, calibration, and routine maintenance of Analyzer and sampling systems on the TSI Analyzers. Annual examination must be required on the OBD portion of the Testing Equipment.
- On-site service response by a Contractor-authorized repair technician within one business day (Saturday shall be considered a business day), excluding Sundays, national/state holidays (New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Pioneer Day, Labor Day, Veteran's Day, Thanksgiving, and Christmas), and other days the purchaser's business might be closed, of a request from the I/M Program Station. The names, toll free telephone number(s), and service facility addresses of the Contractor's representatives responsible for Equipment service must be provided to the I/M Program Station. All system repairs, component replacements, and/or Testing Equipment adjustments, including reset of quality control lockout systems, must be accomplished on-site within a minimum average response time of 8 business hours after a service request has been initiated. If the completion of this work is not possible within this time period, Testing Equipment of equal quality and specifications must be provided until the malfunctioning unit is properly repaired and returned to service.

1.6 Electronic Transmission Security

The Testing Equipment shall utilize a standard protocol encryption method for communications with the host incorporating error detection and not incorporating error correction. The Testing Equipment shall utilize bitsum checking for all messages.

1.7 Tamper Resistance

The controlled access design must be the responsibility of the Contractor, but all security measures must be submitted to the Department for approval. The Testing Equipment operators, Department personnel, and field representatives authorized by the Contractor shall be prevented from creating or changing any inspection results, programs, or data contained on the Testing Equipment. The Contractor shall use appropriate software and hardware provisions to protect I/M files and programs. The file and program protection may consist of mechanical systems in combination with electronic and software systems. The protection features must prevent access to the secured portions of the hard disk containing I/M programs and inspection data. The control key or its functional equivalent, which gives access to the operating system (OS), must not be activated except through the use of a password on the audit menu. The password must be chosen by the Department at the time of certification testing. Other security or protection alternatives may be proposed by the Contractor for approval by the Department.

The Contractor shall, at a minimum, develop tamper resistant features to prevent unauthorized access through the Testing Equipment cabinet. Micro switches, keyed and software controlled locks, and software algorithms requiring the use of an access code must all be used where appropriate. Any unauthorized access to the secured areas of the Testing Equipment must be detected, even when the power is off. A software lockout algorithm must be activated should

tampering occur, which would abort any existing inspection sequence and prevent further inspections until the lockout is cleared by a field representative authorized by the Department. The Contractor shall develop a system to allow Contractor-authorized repair technicians to clear tamper lockouts only during authorized service calls. The lockout system must be designed so that it can be activated from the audit menu by Department personnel. The Contractor may use keyed locks on the cabinet doors to secure the disk drives as long as the locks are built-in and can be changed by authorized personnel should a security problem be identified. A software controlled solenoid lock may also be used on the secured drive door of the Testing Equipment. The solenoid lock may be used instead of or in addition to any key or combination lock that may be provided. The Testing Equipment software must control the solenoid lock and unlatch the doors in response to authorized requests from the audit menu while maintaining the appropriate levels of security.

A tamper file must be created that includes the date, time, type, and location of the tamper lockout, date and time the lockout was cleared, and who cleared the lockout. The tamper lockout type and location must be accessible only through the lockout function of the Testing Equipment's audit menu.

Access to the compact disc drive (CD), if applicable, must be available to I/M Program Station personnel at all times. However, access to the BIOS, I/M related programs, and data must be secured separate from the CD and additional drives. The Contractor shall provide a security method approved by the Department for the CD drive(s) to prevent unauthorized reads, writes, and executable. However, the Contractor may offer Testing Equipment with additional disk drives that can run optional software application programs.

The Testing Equipment must prevent Contractor-authorized repair technicians from performing the following, except in a manner approved by the Department:

- Clearing a state lockout;
- Clearing a lockout for a failed three-day gas calibration or leak check;
- Adding, deleting, or modifying test data;
- Adding, deleting, or modifying I/M Program Station information or an Certified Emissions Inspector's license number; and
- Altering the calibration gas bottle values.

1.8 Automated Inspection Process Software and Displays

The inspection process, data collection, and quality control features of the Testing Equipment must be automated as much as possible. The software must automatically select the emission standards for the vehicle from an internal reference table. Vehicle identification information must be derived from a database accessed over a real time data system to the Testing Equipment. Access to the Vehicle Identification Database (VID) shall be accomplished by entry of the vehicle identification number (VIN) in its entirety. Provisions must be made for manual entry of data for vehicles not in the reference files of the Testing Equipment. The Contractor in

consultation with the Department shall customize how the emission testing results are displayed on the Testing Equipment and on the approved paperwork provided to the owner of the vehicle.

2.0 HARDWARE REQUIREMENTS

2.1 Overview

The hardware requirements for the Analyzer must meet or exceed specifications as published by the California Bureau of Automotive Repair (BAR) and contained in the "BAR-97 EMISSIONS INSPECTION SYSTEM SPECIFICATIONS" (BAR-97), dated May 1996, except where reference is made to ASM testing and NOx gas measurement requirements. The Analyzer may include all amendments made to the BAR-97 hardware specifications to present date. Each Analyzer shall be equipped with Bar Code Scanner, Engine Revolutions per Minute Detection System and Real-Time Inspection Testing Monitoring System.

2.2 Accessing the OBD System

The Testing Equipment must include hardware and software necessary to access the on-board computer systems on all model-year 1996 and newer gasoline and natural gas powered vehicles. The Testing Equipment must also be able to access the on-board computer system on all model years 2007 and newer diesel powered vehicles. The equipment design and operation of the Testing Equipment must meet the federal requirements contained in Title 40 of the Code of Federal Regulations (CFR), Chapters 85.2207-2231 and the recommended practices regarding OBD inspections contained in the J1962, J1978 and J1979 published by the Society of Automotive Engineers (SAE). The Testing Equipment must be able to connect to the vehicle's OBD connector and access, at a minimum, the following OBD data:

- Service modes: $01, $03, $07, $09, $0A

At a minimum, the Testing Equipment must also be capable of communicating with all OBD vehicles that use the following communications protocols:

- International Organization for Standardization (ISO) 9141;
- Variable pulse width (VPW) as defined in the SAE's J1850;
- Pulse width modulation (PWM) as defined in the SAE's J1850;
- Keyword protocol 2000 (KWP); and
- Controller area network (CAN) as defined in the ISO 15765-4.3:2001.

The OBD interrogation process must be fully integrated into the Testing Equipment, automated, and require no inspector intervention to collect and record the OBD data retrieved via the OBD connector link. No separate interface may be used.

2.3 OBD Inspection Equipment

The OBD inspection Equipment apply only to the OBD communication components, which must meet all federal requirements contained in 40 CFR §§85.2207 - 85.2231 and recommended practices contained in the J1962, J1978, and J1979 published by the SAE. The Equipment must meet criteria contained in the EPA's guidance document, "Performing Onboard Diagnostic System Checks as Part of a Vehicle Inspection and Maintenance Program" (EPA, 2001) or EPA's applicable update to this document.

2.4 Bar Code Scanner

The bar code scanner must be able to read a one-dimensional (1-D) and a two-dimensional (2-D) bar code through a windshield and use visible laser diode technology or an equivalent approved by the Department. The bar code scanner must not be able to read Universal Product Code (UPC) 1-D bar codes. The bar code scanner must be able to withstand multiple drops to concrete covering a distance of at least 4 feet and be environmentally sealed to withstand the normal operating conditions of an automotive service environment.

2.5 Engine Revolutions per Minute Detection

Testing Equipment must be equipped with a tachometer, or equivalent software and hardware necessary to detect engine RPM from the original equipment manufacturer (OEM) ignition technologies in use at the time of certification. Possible updates may be required to enable future ignition systems to be monitored for engine RPM. A software "HELP" screen must be available to help the Certified Emissions Inspector locate an RPM signal. The cable-type connection must be at least 25 feet long (measured from the front of the Testing Equipment).

Based on the vehicle identification information available to the Certified Emissions Inspector, the Testing Equipment must display messages indicating when the vehicle under inspection requires a specific type or method of the tachometer pick-up connection. A digital display tachometer must be displayed to measure engine speed. For TSI Analyzers, RPM readings must be recorded on a second-by-second basis for the 10 second or 5 second period that is used to determine the pass or fail status of the TSI emissions inspection, respectively. The tachometer operation must use one of the following means:

- Radio frequency-type transmitter/receiver that requires no direct vehicle connection and can detect engine RPM on vehicles using distributorless ignition systems (DIS);
- Cable-type connection capable of detecting engine RPM of current OEM ignition technology;
- Battery/accessory power connection; or
- Cable-type connection capable of detecting engine RPM via the OBD port.

During the official inspection process the Testing Equipment must prompt the Certified Emissions Inspector to shut the engine off while connecting the cable-type RPM connection. The RPM bypass function must be made available when the live engine RPM is displayed for the first

time. If the RPM cannot be obtained, the Certified Emissions Inspector shall be allowed to bypass the RPM. The Certified Emissions Inspector must simultaneously strike at least two keys to activate the RPM bypass. The bypass function must no longer be available once the emission inspection has begun.

The Certified Emissions Inspector may use the previously listed methods for 1996 and newer model-year vehicles if the OBD port is unable to detect engine RPM. Tachometer performance must be no less than a 0.5 second RPM response time with an accuracy of +/-3 percent of actual RPM.

2.6 Real-Time Inspection Testing Monitoring System

All approved Testing Equipment conducting official emission testing shall be equipped with video capturing equipment. An I/M Program Station will be in violation if the video capturing equipment is not properly maintained or installed and capturing images of each inspection. If video equipment is not fully operational, the I/M Program Station must contact the Contractor immediately for repair or replacement.

2.7 Inspection Restrictions Based on Current Calibrations

The Analyzer must:

- prevent TSI emissions inspections if the leak check has not passed in the last 24 hours;
- prevent TSI emissions inspections if the gas calibration has not passed in the last 72 hours;

The Testing Equipment must display appropriate error messages that indicate when a leak check or other calibration is needed to allow TSI inspections to be performed.

2.8 Running Changes and Other Hardware Modifications

Changes to design characteristics, component specifications, or any other modifications to the Testing Equipment hardware must be approved by the Department. The Contractor is responsible for confirming that such changes will have no detrimental effect on performance of the Testing Equipment. The Department may require testing at approved beta test sites prior to the release of the modifications.

All proposed hardware modifications must be thoroughly tested by a third-party before being submitted to the Department, and be accompanied by a cover letter containing the following information:

- Description of all of the proposed modifications to be performed, a parts list, and the installation instructions for the Contractor-authorized repair technician;
- Test data and an engineering evaluation regarding the effects of the proposed modification(s) on the performance and reliability of the Testing Equipment for any modifications to the bench or sample system;

- Timeline showing timeframe in which the modifications are expected to occur and the number of existing units of Testing Equipment that will be updated;
- Description of any special procedures that are needed to perform the hardware modifications; and
- Documentation for any software update that would be required for the proposed hardware modifications.

2.9 Exhaust Gas Analysis Equipment Specifications

This section defines the requirements for the components needed to determine the concentrations of the exhaust gases during the TSI inspections.

2.9.1 Measured Gases

The Analyzer must measure hydrocarbons (HC) as hexane in parts per million (ppm), carbon monoxide (CO), carbon dioxide (CO_2), and oxygen (O_2) in percent. The Analyzer must have a digital display for vehicle engine speed and exhaust concentrations of HC, CO, CO_2, and O_2 and must be capable of measuring exhaust concentrations of HC, CO, CO_2, and O_2 at a minimum sample rate of twice per second.

2.9.2 Warm-up Conditions

The Analyzer must reach stability within 30 minutes from startup at 35 degrees Fahrenheit (°F). The Analyzer must be considered warmed-up when the internal verifications are complete and the zero and span readings for HC, CO, CO_2, and O_2 have stabilized within the allowable accuracy values for five minutes without adjustment. If stabilization has not been reached within an allotted time frame, then the Analyzer must prevent TSI inspection sequences and display a message instructing the Certified Emissions Inspector to call for service. Functional operation of the gas sampling system must remain disabled through an internal lockout until the instrument meets stability and warm-up requirements.

2.9.3 Sampling System Components

A) General:

The sampling system must extract exhaust gas from a subject vehicle, remove particulate matter and aerosols from the sampled gas, drain the condensed water from the sample if necessary, and deliver the resultant gas sample to the Analyzer's sensors for analysis. The sampling system must, at a minimum, consist of a tailpipe probe, flexible sample line, continuously draining water removal system, particulate trap, sample pump, and flow control components. Provisions must be made for the introduction of zero air and calibration gases. Materials that are in contact with the gases sampled must not contaminate or change the composition of the gases to be

analyzed, including gases from vehicles not fueled by gasoline. The system must be designed to be corrosion-resistant and to withstand vehicle exhaust.

B) Sample Probe and Hose Criteria:

Sample hose must be 25 feet in length with a tolerance of +/- 0.5 feet when measured from the front of the Analyzer cabinet. The hose must be composed of non-kinking material that will not be affected by or react to the exhaust gases.

Sample hose and probe provided with each Analyzer must withstand exhaust gas temperatures at the probe tip of up to 1,100°F for 10 minutes. Use of dissimilar metals with thermal expansion factors of more than 5 percent must not be used in either the construction of probes or connectors.

A positive means of retention must be incorporated to prevent the probe from slipping out of the tailpipe when in use.

A thermally insulated securely attached hand grip must be provided on the probe to ensure easy probe insertion using one hand.

The probe must be designed so that the tip extends 16 inches into the tailpipe and at least 10 inches into the vehicle's exhaust.

The probe tip must be shielded to avoid inadvertent debris collection and sealed to prevent any sample dilution when it is inserted into the tailpipe. Use of a tailpipe extension is permitted as long as the extension does not change the exhaust back pressure by more than +/- 1 inch of water pressure.

A straight probe tip must be provided that is bent less than 15 degrees, made of stainless steel solid-wall tubing with a 3/16 inch outside diameter, and designed so the connector between the removable probe tip and the rigid portion of tubing is up inside the tailpipe at least three inches to reduce the effects of any leak that might occur.

A probe tip cap suitable for performing a leak check must be provided if the vacuum decay method for performing a leak check is used. Otherwise, all hoses and connectors that are necessary to perform a leak check must be provided.

The sample system must include equipment necessary to inspect vehicles equipped with dual exhaust pipes. The flow in each leg of the dual exhaust probe sample system must be equal.

C) Particulate Filter and Water Trap:

- The particulate filter must be capable of trapping 97 percent of all particulates and aerosols five microns or larger;
- The filter must not absorb or adsorb HC;

- The filter housing must be transparent to allow the operator to observe the filter's condition without removing the housing. The filter must be removable and reliably seal after replacement;
- The water trap must be sized to remove exhaust sample water from vehicles fueled with, or a combination of gasoline, propane, compressed natural gas (CNG), oxygenated fuels, and alternative fuels. The filter bowl, filter, and housing must not react to these fuels or the vehicle's exhaust gases. The condensed water must be continuously and sufficiently drained from the water trap's bowl to prevent condensation in the sample system or in the optical bench's sample cell; and
- Incorporate a back-purge system.

D) Low Flow Indicator:

The Analyzer must lockout official TSI inspections when the sample flow is below the acceptable level. The Analyzer's sample system must be equipped with a flow meter or equivalent device that detects sample flow degradation. The Analyzer must display a low flow condition message when flow rate causes the measurement error for any gas to exceed 3 percent of the gas value used for calibration or audit or causes the analyzer response time to exceed 13 seconds to 90 percent of a step change in input, whichever is less. The sample vacuum may be continuously monitored to detect a low flow condition as an alternative.

E) Analyzer lockout:

The Analyzer must lockout official TSI inspections when the sample flow is below the acceptable level. The Analyzer's sample system must be equipped with a flow meter or equivalent device that must indicate when sample flow degradation for any gas other than NO causes:

- The measurement error to exceed 3 percent of the gas value used for checking; or
- The Analyzer response time to exceed 13 seconds for a 90 percent step change in input.

The sample vacuum may be continuously monitored to detect a low flow condition as an alternative.

3.0 Analyzer Requirements

3.1 Gas Calibration

A) General:

The Analyzer must automatically require and successfully pass a leak check and a gas calibration for HC, CO, CO_2, and O_2 by a method that is approved by the Department. The Analyzer must not allow an error of more than 2 percent of the readings using the high and low range span gases

for TSI inspections. The Analyzer must automatically prohibit the performance of the tailpipe portion of the vehicle emissions inspection when readings exceed the 2 percent error tolerance. The Analyzer channels must be adjusted to the center of the allowable tolerance range as a result of the gas calibration procedure.

The standard gases to be used to calibrate and audit the Analyzer must meet the requirements in the Federal Clean Air Act, §207(b) and described in Subpart W of Part 85 of Chapter I, Title 40 of the CFR. All standard gases purchased by the I/M Program Station for use in the Analyzer must conform to the requirements established by the BAR for emissions inspection analyzer calibration gases and the National Institute of Standards and Technology (NIST).

B) Gas Calibration Procedure:

- The Analyzer must maintain accuracy between gas calibrations taking into account all errors, including noise, repeatability, drift, linearity, temperature, and barometric pressure;
- The Analyzer must automatically require a zero gas calibration and a high and low range gas calibration for HC, CO, CO_2, and O_2, where applicable. The Analyzer must record the gas reading data prior to the adjustment and other data pertinent to control charting Analyzer performance;
- The gas calibration must be accomplished by the following method: Calibration gases that meet the requirements of Section 3.1: Calibration Gases for TSI Analyzers must be introduced into the calibration port of the Analyzer. The pressure in the sample cell must be the same with the calibration gas flowing as with the sample flowing during an inspection. Once the pressure is the same, the Analyzer must perform a zero gas calibration and a leak check. The leak check must ensure that the entire sample system does not leak.

3.2 Calibration Gases for TSI Analyzers

The following gases must be used for the two-point calibration and audit.

A) Low Range Calibration Gas

HC = 200 ppm propane

CO = 0.5 percent

CO_2 = 6.0 percent

O_2 = Shop Air

N_2 = Balance 99.99 percent pure

B) High Range Calibration Gas

HC = 3200 ppm propane

CO = 8.0 percent

CO_2 = 12.0 percent

O_2= Shop Air

N_2 = Balance 99.99 percent pure

3.3 Dilution

The flow rate of the Analyzer must not cause more than 10 percent dilution during sampling of vehicle exhaust gases from a 1.6 liter engine at normal idle. Ten percent dilution is defined as a sample of 90 percent exhaust and 10 percent ambient air.

3.4 Calibration Prompts and Gas Usage

The Analyzer must display prompts to guide the inspector through the gas calibration procedure in a manner that minimizes the amount of gas used. The Analyzer must be designed to keep the loss of calibration gas to less than 0.5 liter in 24 hours when the valve on the calibration gas bottle is left open.

3.5 Propane Equivalency Factor

The value of the PEF must range from 0.490 to 0.540 and be displayed in a manner acceptable to the Department for each gas audit and gas calibration point. If an optical bench must be replaced in the field, then the Contractor-authorized repair technician must change any external labels to correspond to the PEF of the new bench. The Analyzer must incorporate an algorithm relating PEF to HC concentration. Corrections to the PEF must be made automatically and the corrected PEF value must range from 0.470 to 0.560.

Appendex 2

APPENDIX 1

Cache County
Emission Inspection/ Maintenance Program
Ordinance 2013-04

Planning

CACHE COUNTY ATTORNEY

James M. Swink
Cache County Attorney

Donald G. Linton
Chief Deputy

Tony C. Baird
Chief Prosecutor

Barbara K. Lachmar
Spencer D. Walsh
Andrew E. McAdams
Jacob C. Gordon
Denise Ciebien
Daniel V. Major
Deputy County Attorneys

Terryl Warner
Jenny Nielsen
Joan Liquin
Victim Advocates

199 North Main Street
Logan, Utah 84321
(435) 755-1860
Fax: (435) 755-1969 or (435)755-1970
E-mail: (first initial)(last name)@cacheattorney.org

June 12, 2013

Bryce Bird
Utah Division of Air Quality
PO Box 144820
Salt Lake City, UT 84114-4820

RE: Cache County Motor Vehicle Inspection/Maintenance Ordinance

Dear Mr. Bird,

The Cache County Motor Vehicle Inspection/Maintenance Ordinance (hereinafter "Ordinance") is being submitted to the Air Quality Board to be adopted as part of the Utah State Air Quality Plan. This Ordinance was adopted by the Cache County Council on March 12, 2013, with an effective date of March 27, 2013. (See Ordinance attached hereto for reference).

The Cache County Attorney's Office assisted the Bear River Health Department and the Cache County Council in the creation of the Ordinance. In doing so, the Cache County Attorney's Office referred to, *inter alia*, Utah Code Ann. § 41-6a-1642, as amended, and the Ordinance was adopted, in part, in accordance with this statute.

Pursuant to the provisions of Utah Code Ann. § 41-6a-1642, it is the opinion of the Cache County Attorney's Office that the Ordinance is applicable to the entire County – including incorporated as well as non-incorporated areas, and that the Ordinance is in full compliance with Utah Code Ann. § 41-6a-1642. If you have any further questions or concerns, please do not hesitate to call our office at the telephone number indicated above.

Sincerely,

Donald G. Linton
Chief Deputy Cache County Attorney

attachment
cc: Amanda Smith
Lloyd Berentzen

ORDINANCE 2013-04

IMPLEMENTATION OF A VEHICLE EMISSIONS AND MAINTENANCE PROGRAM IN CACHE COUNTY

1.0 PURPOSE

The purpose of this ordinance to reduce air pollution levels in Cache County by requiring emission inspections of on-road motor vehicles and by requiring emission related repairs and/or adjustments for those vehicles that fail to meet the prescribed standards so as to:

1.1 Protect and promote the public health, safety, and welfare;

1.2 Improve air quality;

1.3 Comply with the federal regulations contained in 40 CFR part 51 subpart S;

1.4 Comply with the law enacted by the Legislature of the State of Utah, Section 41-6a-1642 Utah Code Annotated, 1953, as amended.

2.0 POWERS AND DUTIES

2.1 The Cache County Council (hereafter, "Council") has authority to implement a vehicle emission inspection and maintenance program under Section 41-6a-1642, Utah Code Annotated, 1953, as amended.

2.2 The Council is presently required by the EPA and the State of Utah to implement a vehicle emission inspection and maintenance program.

2.3 The Council hereby delegates its authority as an administrative body under Section 41-6a-1642, Utah Code Annotated, 1953, as amended, to the Bear River District Board of Health (hereafter "Board"), to address all issues pertaining to the adoption and administration of the vehicle emission inspection and maintenance program.

2.4 The Council authorizes and directs the Board to adopt and promulgate rules and regulations to ensure compliance with EPA and State Implementation Plan requirements with respect to an emission inspection and maintenance program.

3.0 GENERAL PROVISIONS

3.1 The Board, in conjunction with its staff, will administer and enforce this ordinance.

3.2 The Board shall adopt vehicle emission and inspection rules and regulations which meet EPA and State Implementation Plan requirements.

3.3 The Council shall approve the initial Rules and Regulations established by the Board and all changes in Rules and Regulations.

4.0 GUIDELINES TO BE FOLLOWED BY THE BEAR RIVER BOARD OF HEALTH IN IMPLEMENTATING A VEHICLE EMISSION INSPECTION AND MAINTENANCE PROGRAM IN CACHE COUNTY

4.1 Vehicles registered in Cache County that are not exempt from the program (see 41-6a-1642(3), Utah Code Annotated) will be inspected on the following schedule:

4.1.1 Gasoline and natural gas powered vehicles model year 1969 and newer: No emissions inspection will be required for gasoline and natural gas powered vehicles that are six model years and newer as of January 1 of any given year. An emissions inspection will be required every other year for vehicles that are seven model years and older as of January 1 of any given year. Emissions testing on odd-numbered years for vehicles with odd-numbered model years and on even-numbered years for vehicles with even-numbered model years. No emissions inspection for vehicles model year 1968 and older.

4.1.2 Diesel powered vehicles model year 1998 and newer: No emissions inspection will be required for diesel powered vehicles that are six model years and newer as of January 1 of any given year. An emissions inspection will be required every other year for vehicles that are seven model years and older as of January 1 of any given year. Emissions testing on odd-numbered years for vehicles with odd-numbered model years and on even-numbered years for vehicles with even-numbered model years.

Diesel powered vehicles 2007 and newer will be tested using OBD technology. Diesel powered vehicles 1998-2006 will have a visual inspection to verify that proper emissions control devices are in place. Diesel powered vehicles 1997 and older are subject to the Bear River Health Department Smoking Vehicle Program.

4.2 A maximum fee for inspection shall be set by the Board and approved by the Council. Part of this fee will be retained by the entity which performs the test and part may be remitted to the Board as reimbursement for administering the program. The intent of the Council is that this fee be as low as possible, while still maintaining the financial viability of the program.

4.3. If a vehicle fails an emissions inspection, a waiver may be granted that will allow the vehicle to be registered that year. In order to qualify for a waiver, the vehicle owner/ operator must spend a minimum of $200.00 on emissions related repairs and meet any other requirements established by the Board. A waiver will be issued once during the lifetime of the vehicle. Any changes to the minimum required repair expenditure to qualify for the waiver shall be approved by the Council.

4.4 Emission inspections in Cache County will be conducted by private firms. The Board shall establish criteria to be used to identify how many and which firms are allowed to conduct inspections and the training that is required for certification.

4.5 To fund the administration of the emissions inspection and maintenance program and other air quality improvement programs, the Council authorizes an Air Pollution Control fee to be assessed upon every motorized vehicle registered in Cache County at the time of registration as provide by Section 41-1a-1223, Utah Code Annotated, 1953, amended.

4.5.1 The fee is set at $3.00 for each vehicle registration within the County under section 41-1a-215, Utah Code Annotated, 1953, as amended and at $2.25 for each vehicle registration within the county for a six month registration period under Section 41-1a-215.5, Utah Code, 1953 as amended.

4.5.2 Motor vehicle that are exempt from the registration fee, and commercial vehicles with an apportioned registration shall be exempt from this fee as per Section 41-1a-1223, Utah Code Annotated, 1953 as amended.

4.5.3 The fee shall be assessed beginning January 1, 2014.

5.0 REVIEW OF NEED FOR PROGRAM

The Council shall review the vehicle emissions and maintenance program at least every five years to evaluate the continuing need for the program.

6.0 EFFECTIVE DATE

This ordinance takes effect on March 27, 2013. Following its passage, but prior to the effective date, a copy of the Ordinance shall be deposited with the County Clerk and a short summary of the ordinance shall be published in a newspaper of general circulation within the County as required by law.

PASSED BY THE COUNTY COUNCIL OF CACHE COUNTY, UTAH THIS MARCH 12, 2013.

	In Favor	Against	Abstained	Absent
Potter		X		
Buttars		X		
White	X			
Petersen	X			
Robison	X			
Yeates		X		
Zilles	X			
Total	4	3		

STATE OF UTAH COUNTY CLERK SEAL OF CACHE COUNTY

CACHE COUNTY

By: Val K. Potter

Val K. Potter, Chairman

ATTEST:

Jill N. Zollinger

Jill N. Zollinger, County Clerk

Publication Date: March 27, 2013

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-086-13

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Mark Berger, Environmental Planning Consultant

DATE: October 23, 2013

SUBJECT: FINAL ADOPTION: Amend R307-110-10. Section IX, Control Measures for Area and Point Sources, Part A, Fine Particulate Matter; and R307-110-36. Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County.

When sections of the State Implementation Plan (SIP) are amended by the Board, those sections must be incorporated into the Air Quality Rules. On August 7, 2013, the Board proposed changes to R307-110-10 and R307-110-36 to incorporate into those rules changes made to Chapter 7 of the Logan, UT-ID $PM_{2.5}$ Nonattainment State Implementation Plan as well as SIP Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County. A 30-day public comment period was held. No comments were received and no hearing was requested.

Staff Recommendation: Staff recommends the Board adopt R307-110-10 and R307-110-36 as proposed.

R307. Environmental Quality, Air Quality.
R307-110. General Requirements: State Implementation Plan.
R307-110-10. Section IX, Control Measures for Area and Point Sources, Part A, Fine Particulate Matter.

The Utah State Implementation Plan, Section IX, Control Measures for Area and Point Sources, Part A, Fine Particulate Matter, as most recently amended by the Utah Air Quality Board on November 6, 2013, pursuant to Section 19-2-104, is hereby incorporated by reference and made a part of these rules.

KEY: air pollution, PM10, PM2.5, ozone
Date of Enactment or Last Substantive Amendment: 2013
Notice of Continuation: February 1, 2012
Authorizing, and Implemented or Interpreted Law: 19-2-104(3)(e)

R307. Environmental Quality, Air Quality.
R307-110. General Requirements: State Implementation Plan.
R307-110-36. Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County.

The Utah State Implementation Plan, Section X, Vehicle Inspection and Maintenance Program, Part F, Cache County, as most recently adopted by the Utah Air Quality Board on November 6, 2013, pursuant to Section 19-2-104, is hereby incorporated by reference and made a part of these rules.

KEY: air pollution, PM10, PM2.5, ozone
Date of Enactment or Last Substantive Amendment: 2013
Notice of Continuation: February 1, 2012
Authorizing, and Implemented or Interpreted Law: 19-2-104(3)(e)

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-088-13

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Joel Karmazyn, Environmental Scientist

DATE: October 23, 2013

SUBJECT: PROPOSE FOR PUBLIC COMMENT: Amend R307-335. Degreasing and Solvent Cleaning Operations.

On July 3, 2013, the Board proposed for public comment amendments to R307-335. A public comment period was held from August 1 to September 3, 2013. The proposed amendments were to:

1. Clarify that the requirements of R307-335-7(2) apply to operators of industrial solvent cleaning that emit 15 pounds of volatile organic compounds (VOCs) or more per day from the cleaning process;

2. Exempt industrial solvent cleaning of electronic parts in R307-335-7(1); and

3. Exempt military technical data orders in R307-335-7(1).

Public Comments on Proposed Amendments

Proposed Amendment 1: The public did not comment on this proposal. No further action is necessary on this item prior to adoption by the Board.

Proposed Amendment 2: The public did not comment on this proposal, but comments were received from the Specialty Graphic Imaging Association (SGIA) and the American Coating Association (ACA) regarding the VOC content limit in R307-335-7(3). The SGIA and ACA noted that they failed to comment on the VOC content limit during the initial rulemaking and at this juncture are contending that the limit constrains their use of solvents to acetone. The use of acetone increases fire risk due to its low flash point. The ACA is particularly concerned that the use of acetone in ink manufacturing will result in workplace fires.

Upon further analysis, staff has determined that if the VOC content limit is raised to address safety concerns raised by the SGIA and ACA, there will no longer be a reason to exempt electronic parts from the rule because the higher VOC content level would eliminate the need to use aqueous based solvent in the electronics industry.

We can also maintain the state implementation plan (SIP) VOC credit used in the attainment modeling demonstration even with a higher VOC content limit by expanding the rule applicability to the broad electronic industrial sector. The following is a list of types of businesses within the electronic industrial sector operating in the nonattainment area and the number of sources within each category:

- Semiconductor – 43
- Business to Business Electronics Market – 69 (mix of manufacturers, supplier, and brokers)
- Electronic Coils, Transformer, and Inductor – 5
- Electronic Computer Manufacturing – 6
- Electronic Connector Manufacturing – 2
- Motor Vehicle Electrical and Electronic Equipment Manufacturing – 1
- Other Electronic Component Manufacturing – 14
- Small Electrical Appliance Manufacturing – 1

There are a number of sizable sources in this business sector mix. For example, the small electrical appliance manufacturer located in Orem has between 250 and 499 employees (based on Workforce Services data).

Consequently, staff is now recommending including the electronics industry within the rule applicability based on the proposal to increase the VOC content limit discussed below.

Proposed Amendment 3: L-3 Communications pointed out that military contractors must also meet military technical data orders. Therefore, they requested that the military exception be extended to include contractors. A recommendation was made to exclude operations conducted off military installations as well. Staff concurs and has modified the exemption to include contractors performing work on or off site military installations.

General Public Comments

The SGIA and ACA submitted similar comments regarding the solvent cleaning limit of 0.42 lb/gal VOC. They contend that the limit constrains their use of solvents to acetone. The use of acetone increases fire risk due to its low flash point.

R307-335-7, Industrial Solvent Cleaning, rulemaking followed the EPA Control Technology Guideline recommendation to apply a general solvent cleaning limit of 0.42 lb/gal VOC, with the option to modify rulemaking specific to state industrial processes. No commenters offered industry specific information during the initial comment period to support an industry specific VOC content limit. In the interest in maximizing VOC reduction for the $PM_{2.5}$ SIP and in the absence of industry specific information, staff supported the general solvent cleaning limit. The SGIA and ACA have now raised our awareness of the safety issue with acetone use; therefore, we have worked closely with both organizations to identify a workable solution. We have researched this issue by contacting other regulators that have adopted industrial solvent cleaning rules and contacted solvent suppliers to evaluate alternate options.

An analysis of other state regulations shows that mid-western states that are classified as moderate nonattainment (i.e., Ohio and Wisconsin) have adopted higher limits (1.67-7 lb/gal for varied industries), while severe nonattainment air districts, like San Joaquin Valley and South Coast, have adopted more stringent levels overall, but have also exempted certain industries that are included in our rule. For example, the San Joaquin Rule 4663 exempts coating and ink manufacturers.

Commercially Available Low-VOC Solvents

The South Coast Rule 1171 has a VOC content limit of 0.83 lb/gal. We contacted Mike Morris, the industrial solvent cleaning contact at South Coast, to find out if sources have had difficulty finding cleaning products that meet their low limit. Mr. Morris provided us with a list of manufacturers that supply the California market that can meet that limit. Mr. Morris stated that sources in the graphics arts industry can choose between aqueous cleaners, vegetable oils, a low content acetone mixture and parachlorobenzotrifluoride (PCBTF), an exempt VOC compound. PCBTF is considered to have negligible VOCs and is increasingly used as a xylene replacement in cleaners, thinners, and other aromatic hydrocarbon blends. However, PCBTF costs two to three times the amount of traditional hydrocarbons.

Several of the suppliers referenced by Mr. Morris and a few additional suppliers found by staff were asked about their product lines and ability to meet the 0.83 lb/gal VOC content limit. Most suppliers confirmed that they offered at least one product that met the limit, but were quick to point out limitations and challenges in a number of industrial settings. Specific problems were cited for the circuit board, plastic printing and any other industry that uses impregnated printing. These industries require a higher VOC content solvent or must use acetone. Supplier representatives who spoke knowledgably about the California marketplace and industrial practices, recommended a general VOC content limit of between 2.49 and 4.2 lb/gal.

Industry-Specific Response to Commenters

Digital Printing

The digital printing cleanup process is conducted using small absorptive swabs and is not expected to attain the 15 lb/day VOC threshold within R307-335-7(2). Therefore, no further action is deemed necessary for this industry.

Coating and Ink Manufacturing

The ACA's position is that the coating and ink manufacturing industry should be exempt from a VOC limit and rely solely on best management practices to reduce VOC emissions. Some states have exempted this industry in their general degreasing rule but then have a separate industry specific rule. R307-335-7 already requires sources to reduce VOC emissions from the use, handling, storage, and disposal of cleaning solvents and shop towels. Work practice requirements are part of all our coating rules.

According to Workforce Services records, there are only five ink manufacturers in Utah; this precludes development of an industry specific rule to regulate coating and ink manufacturing.

Company Name	City	County Name	Emp Range	NAICS
Advanced Color Systems Inc	Salt Lake City	Salt Lake	1-4	325910
Gans Ink & Supply Co Inc	Salt Lake City	Salt Lake	10-19	325910
Graphic Ink Company	Salt Lake City	Salt Lake	10-19	325910
Inx International Ink Co	Salt Lake City	Salt Lake	0	325910
Sawgrass Technologies Inc	Highland	Utah	1-4	325910

Consequently, we believe it is reasonable to include this industry within R307-335-7 as a means to reduce VOC emissions as part of the $PM_{2.5}$ SIP.

Screen Printing

In screen printing, ink passes through a porous screen of fine silk, Nylon, Dacron, polyester, or stainless steel mesh to which a stencil has been applied. Printing is accomplished by applying ink to the screen and then forcing the ink through the stencil with a rubber or synthetic blade. Inks are usually cured by applying heat, infrared or ultraviolet to the printed products. After the job is finished, the screens are cleaned of ink and stencil then re-used. Ink solvents can be xylols, toluene, ketones, and mineral spirits.

According to Workforce Services records, there are 61 screen printing sources in the $PM_{2.5}$ nonattainment area. Some of these sources participated in the graphic arts survey that led to the national adoption of the revised emission factor for graphic arts (201 lb VOC/employee). The VOC emissions from these sources are estimated to be 74 tons/yr. Therefore, we believe that we should derive the lowest general VOC content limit that will accommodate this and other industries in order to maintain SIP credit. South Coast has the lowest limit at 0.83 lb/gal while a number of states like Ohio are at 4.2 lb/gal. The difference in values again reflects air district attainment status. The SGIA has stated that it will not support a limit lower than 4.2 lb/gal. We have confirmed that, while limited, there are available options at the South Coast VOC limit, as described above. However, in the interest in establishing one low VOC limit for all uses, we are proposing a limit between the noted ranges, as described below.

Proposed General VOC Content Limit

In the interest of attaining maximum SIP VOC reductions, addressing industrial safety concerns and widely available commercial products, we are recommending a general VOC solvent content limit of 2.49 lb/gal. Based on our research, it is our understanding that this limit will offer industry greater options. Increasing the limit allows us to include a broader range of industrial sectors thereby maintain the same SIP credit applied in our attainment modeling.

Staff Recommendation: In order to provide industry sufficient time to determine their ability to comply with the newly proposed general VOC content limit, staff recommends that the Board propose for public comment R307-335 as amended.

R307. Environmental Quality, Air Quality.
R307-335. Degreasing and Solvent Cleaning Operations.
R307-335-1. Purpose.

The purpose of this rule is to limit volatile organic compound (VOC) emission from degreasing and solvent cleaning operations.

R307-335-2. Applicability.

R307-335 applies to all degreasing or solvent cleaning operations that use VOCs and that are located in PM10 and PM2.5 nonattainment and maintenance plan areas as defined in 40 CFR 81.345 (July 1, 2011).

R307-335-3. Definitions.

The following additional definitions apply to R307-335:

"Batch open top vapor degreasing" means the batch process of cleaning and removing grease and soils from metal surfaces by condensing hot solvent vapor on the colder metal parts.

"Cold cleaning" means the batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing or immersing while maintaining the solvent below its boiling point.

"Conveyorized degreasing" means the continuous process of cleaning and removing greases and soils from metal surfaces by using either cold or vaporized solvents.

“Department of Defense military technical data” means a specification that specifies design requirements, such as materials to be used, how a requirement is to be achieved, or how an item is to be fabricated or constructed.

"Freeboard ratio" means the freeboard height (distance between solvent line and top of container) divided by the width of the degreaser.

"Industrial solvent cleaning" means operations performed using a liquid that contains any VOC, or combination of VOCs, which is used to clean parts, tools, machinery, equipment and work areas. Cleaning operations include, but are not limited to, spraying, wiping, flushing, and purging.

"Open top vapor degreaser" means the batch process of cleaning and removing soils from metal surfaces by condensing low solvent vapor on the colder metal parts.

"Separation operation" means any process that separates a mixture of compounds and solvents into two or more components. Specific mechanisms include extraction, centrifugation, filtration, and crystallization.

"Solvent metal cleaning" means the process of cleaning soils from metal surfaces by cold cleaning, open top vapor degreasers, or conveyorized degreasing.

R307-335-4. Cold Cleaning Facilities.

No owner or operator shall operate a degreasing or solvent cleaning operation unless conditions in R307-335-4(1) through (7) are met.

(1) A cover shall be installed which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if:

(a) The volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),
(b) The solvent is agitated, or
(c) The solvent is heated.
(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
(3) Waste or used solvent shall be stored in covered containers.
(4) Tanks, containers and all associated equipment shall be maintained in good operating condition, and leaks shall be repaired immediately or the degreaser shall be shutdown.
(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment.
(6) If the solvent volatility is greater than 4.3 kPa (33 mm Hg or 0.6 psi) measured at 38 degrees C (100 degrees F), or if solvent is heated above 50 degrees C (120 degrees F), then one of the following control devices shall be used:
(a) Freeboard that gives a freeboard ratio greater than 0.7;
(b) Water cover if the solvent is insoluble in and heavier than water); or
(c) Other systems of equivalent control, such as a refrigerated chiller or carbon adsorption.
(7) If used, the solvent spray shall be a solid fluid stream at a pressure that does not cause excessive splashing and may not be a fine, atomized or shower type spray.

R307-335-5. Open Top Vapor Degreasers.

Owners or operators of open top vapor degreasers shall, in addition to meeting the requirements of R307-335-4(3), (4) and (5),
(1) Equip the vapor degreaser with a cover that can be opened and closed without disturbing the vapor zone. The cover shall be closed except when processing work loads through the degreaser;
(2) Install one of the following control devices:
(a) Equipment necessary to sustain:
(i) A freeboard ratio greater than or equal to 0.75, and
(ii) A powered cover if the degreaser opening is greater than 1 square meter (10.8 square feet),
(b) Refrigerated chiller,
(c) Enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser),
(d) Carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area when cover is open and exhausting less than 25 parts per million of solvent averaged over one complete adsorption cycle;
(3) Minimize solvent carryout by:
(a) Racking parts to allow complete drainage,

(b) Moving parts in and out of the degreaser at less than 3.3 meters per minute (11 feet per minute),

(c) Holding the parts in the vapor zone at least 30 seconds or until condensation ceases,

(d) Tipping out any pool of solvent on the cleaned parts before removal, and

(e) Allowing the parts to dry within the degreaser for at least 15 seconds or until visibly dry.

(4) Spray parts only in or below the vapor level;

(5) Not use ventilation fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) in degreaser open area, unless necessary to meet state and federal occupational, health, and safety requirements.

(6) Not degrease porous or absorbent materials, such as cloth, leather, wood or rope;

(7) Not allow work loads to occupy more than half of the degreaser's open top area;

(8) Ensure that solvent is not visually detectable in water exiting the water separator;

(9) Install safety switches on the following:

(a) Condenser flow switch and thermostat (shuts off sump heat if condenser coolant is either not circulating or too warm); and

(b) Spray switch (shuts off spray pump if the vapor level drops excessively, i.e., greater than 10 cm (4 inches).

(10) Open top vapor degreasers with an open area smaller than one square meter (10.8 square feet) are exempt from R307-335-5(2)(b) and (d).

R307-335-6. Conveyorized Degreasers.

Owners and operators of conveyorized degreasers shall, in addition to meeting the requirements of R307-335-4(3), (4) and (5) and R307-335-5(5):

(1) Install one of the following control devices for conveyorized degreasers with an air/vapor interface equal to or greater than two square meters (21.5 square feet):

(a) Refrigerated chiller; or

(b) Carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area when downtime covers are open, and exhausting less than 25 parts per million of solvent, by volume, averaged over a complete adsorption cycle.

(2) Equip the cleaner with equipment, such as a drying tunnel or rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor.

(3) Provide downtime covers for closing off the entrance and exit during shutdown hours. Ensure that down-time cover is placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shut down and is removed just before they are started up.

(4) Minimize carryout emissions by racking parts for best drainage and maintaining the vertical conveyor speed at less than 3.3

meters per minute (11 feet per minute).

(5) Minimize openings: Entrances and exits should silhouette work loads so that the average clearance (between parts and the edge of the degreaser opening) is either less than 10 cm (4 inches) or less than 10% of the width of the opening.

(6) Install safety switches on the following:

(a) Condenser flow switch and thermostat - shuts off sump heat if coolant is either not circulating or too warm;

(b) Spray switch - shuts off spray pump or conveyor if the vapor level drops excessively, i.e., greater than 10 cm or (4 inches); and

(c) Vapor level control thermostat - shuts off sump level if vapor level rises too high.

(7) Ensure that solvent is not visibly detectable in the water exiting the water separator.

R307-335-7. Industrial Solvent Cleaning.

(1) Exemptions. The requirements of R307-335-7 do not apply to aerospace, wood furniture, shipbuilding and repair, flat wood paneling, large appliance, metal furniture, paper film and foil, plastic parts, miscellaneous metal parts coatings and light autobody and truck assembly coatings, flexible packaging, lithographic and letterpress printing materials, fiberglass boat manufacturing materials, [~~electrical and electronic components~~]and operations that are exclusively covered by Department of Defense military technical data and performed by a Department of Defense contractor and/or on site at installations owned and/or operated by the United States Armed Forces.

(2) Operators of industrial solvent cleaning that emit 15 pounds of VOCs or more per day from industrial solvent cleaning operations, shall reduce VOC emissions from the use, handling, storage, and disposal of cleaning solvents and shop towels by implementing the following work practices:

(a) Covering open containers; and

(b) Storing used applicators and shop towels in closed fire proof containers.

(3) Owners or operators of industrial solvent cleaning operations shall limit VOC emissions by either:

(a) Using cleaning solutions with vapor pressure less than or equal to eight millimeters of mercury (mm Hg) at 20 degrees C;

(b) Using solvents with a VOC content [~~0.42~~]2.49 pounds per gallon or less; or

(c) Installing an emission control system designed to have an overall control efficiency of at least 85%.

R307-335-8. Emission Control Systems.

(1) The owner or operator of a control device shall maintain certification from the manufacturer that the emission control system will attain at least 85% overall efficiency performance and make the certification available to the director upon request.

(2) Emission control systems shall be operated and maintained in accordance with the manufacturer recommendations to maintain at least 85% overall efficiency performance. The owner or operator shall

maintain for a minimum of two years records of operating and maintenance sufficient to demonstrate that the equipment is being operated and maintained in accordance with the manufacturer recommendations.

R307-335-9. Recordkeeping.

The owner or operator shall maintain, for a minimum of two years, records of the solvent VOC content applied and the physical characteristics that demonstrate compliance with R307-335.

R307-335-10. Compliance Schedule.

(1) All sources [~~defined~~]shall be in compliance with R307-335-[~~2~~]7 [~~shall be in compliance with R307-335~~]by [~~September~~]June 1, 201[~~3~~]4.

KEY: air pollution, degreasing, solvent cleaning
Date of Enactment or Last Substantive Amendment: [~~January 1,~~]2013
Notice of Continuation: February 1, 2012
Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(a)

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-087-13

M E M O R A N D U M

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Colleen Delaney, Environmental Scientist

DATE: October 23, 2013

SUBJECT: PROPOSE FOR PUBLIC COMMENT: New Rule R307-210-2. Oil and Gas Sector: New Source Performance Standards; and New Rule R307-214-3. Oil and Gas Sector: National Emission Standards for Hazardous Air Pollutants.

On August 16, 2012, the Environmental Protection Agency (EPA) promulgated New Source Performance Standards (NSPS) and corresponding revisions to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the oil and gas sector. On September 23, 2013, EPA revised the oil and gas sector regulations to extend compliance dates for some of the requirements.

These NSPS and NESHAP regulations are currently enforceable by EPA. The proposed rule change would incorporate the standards into Utah's rules to make them enforceable under state law. The proposed rule change would not establish any new requirements for sources. Additional information about the oil and gas NSPS and NESHAP is attached to this memo.

Staff Recommendation: Staff recommends the Board propose new rules R307-210-2 and R307-214-3 for public comment.

R307. Environmental Quality, Air Quality.
R307-210. Stationary Source.
R307-210-2. Oil and Gas Sector: New Source Performance Standards.

The "Oil and Gas Sector: New Source Performance Standards" in 40 CFR 60.17, 40 CFR Part 60 Subpart KKK, 40 CFR Part 60 Subpart LLL, and 40 CFR Part 60 Subpart OOOO promulgated by the Environmental Protection Agency on August 16, 2012 in 77 FR 49490 and revised on September 23, 2013 in 78 FR 58435 are hereby incorporated by reference.

KEY: air pollution, stationary sources, new source review
Date of Enactment or Last Substantive Amendment: [~~March 7, 2012~~]2014
Notice of Continuation: April 6, 2011
Authorizing, and Implemented or Interpreted Law: 19-2-104(3)(q); 19-2-108

R307. Environmental Quality, Air Quality.
R307-214. National Emission Standards for Hazardous Air Pollutants.
R307-214-3. Oil and Gas Sector: National Emission Standards for Hazardous Air Pollutants.

Revisions to the "Oil and Gas Sector: National Emission Standards for Hazardous Air Pollutants" in 40 CFR 63.14, 40 CFR Part 63 Subpart HH, and 40 CFR Part 63 Subpart HHH promulgated by the Environmental Protection Agency on August 16, 2012 in 77 FR 49490 are hereby incorporated by reference.

KEY: air pollution, hazardous air pollutant, MACT
Date of Enactment or Last Substantive Amendment: 2014
Notice of Continuation: November 8, 2012
Authorizing, and Implemented or Interpreted Law: 19-2-104(1)(a)

EPA's Air Rules for the Oil & Natural Gas Industry

FINAL UPDATES TO REQUIREMENTS FOR STORAGE TANKS USED IN OIL AND NATURAL GAS PRODUCTION AND TRANSMISSION

Storage tanks are used to temporarily hold liquids produced during the production and transmission of oil and natural gas. These storage tanks can emit ozone-forming volatile organic compounds (VOCs), along with several toxic air pollutants, including benzene. Storage tanks used in oil or natural gas production, and transmission are subject to EPA's 2012 New Source Performance Standards (NSPS) for VOCs if they have the potential to emit 6 or more tons of VOCs a year.

ACTION

- On Aug. 2, 2013, EPA updated its 2012 performance standards for oil and natural gas to address VOC emissions from storage tanks used by the crude oil and natural gas production industry. The updates will ensure the tanks likely to have the highest emissions are controlled first, while providing tank owners and operators time to purchase and install VOC controls. The amendments reflect recent information showing that more storage tanks will be coming on line than the agency originally estimated.
- All tanks subject to the NSPS must control VOC emissions by 95 percent or meet the alternative emissions limit EPA is finalizing today.
- The updates:
    - phase in the date by which storage tanks must install VOC controls;
    - establish alternative emission limits for tanks where emissions have declined;
    - clarify test protocols for control equipment;
    - clarify the types of tanks subject to the rule;
    - streamline compliance monitoring requirements to ensure leaks are repaired while EPA addresses monitoring issues raised in reconsideration petitions; and
    - adjust requirements for submitting annual reports.
- The updates respond to issues raised in several petitions for reconsideration of the 2012 standards. EPA is continuing to evaluate other issues raised in the petitions.

SUMMARY OF UPDATES

Tanks Subject to the Rule

- The updated rule clarifies the type of storage tanks that are subject to the NSPS. Tanks are considered "affected facilities" if they: were constructed after Aug. 23, 2011; have potential VOC emissions of 6 or more tons per year; and are used to store crude oil, condensate, unrefined petroleum liquids known as "intermediate hydrocarbon liquids," or produced water. Fuel tanks, for example, are not covered by these rules.
- Tanks with enforceable permit limits under federal, state, local or tribal authority are not affected facilities if those limits are less than 6 tons a year.
- Storage tanks subject to the rule may be located anywhere along the oil and natural gas production and transmission process. For natural gas, this process extends from the natural gas well to the point where gas enters the distribution system; for oil, it extends from the well to the point where oil is transferred to the pipeline for crude oil transmission. Storage tanks located at refineries are not covered by this rule.

Phased-In Control Deadlines

- The 2012 standards required that storage tanks subject to the rule install controls to reduce VOC emissions by Oct. 15, 2013. After those standards were issued, EPA received information that led the agency to substantially increase its estimate of storage tanks that are subject to the rule. In light of that information, and information received during public comment on the proposed changes, EPA is adjusting the compliance date for tanks subject to the rule.
- Emissions from storage tanks generally decline over time, because the amount of liquid that moves through the tank declines as production from a well slows. EPA is setting two compliance dates, based on the date storage tanks were constructed or modified. This phased approach will help ensure the tanks likely to have the highest emissions are controlled first, while giving tank owners/operators time to purchase and install controls.

    - **April 15, 2014** is the compliance deadline for tanks that come online after April 12, 2013, or within 60 days after startup, whichever is later.
        - Within 30 days of startup, owners/operators of these tanks (known as Group 2 tanks) must estimate their tanks' potential emissions and determine whether their tanks are subject to the rule. Vapors that are collected and re-routed to a process do not have to be counted as potential emissions.
        - If a tank's potential emissions are 6 or more tons of VOCs per year, the tgbowner/operator has an additional 30 days to control VOC emissions.

- **April 15, 2015** is the compliance deadline for tanks constructed between Aug. 23, 2011, and April 12, 2013 (known as Group 1 tanks).
    - Owners/operators of Group 1 tanks have until Oct. 15, 2013 to estimate their tanks' potential emissions and determine whether their tanks are subject to the rule. Vapors that are collected and re-routed to a process do not have to be counted as potential emissions.
    - If a tank's potential emissions are 6 or more tons of VOCs per year, the owner/operator has to control VOC emissions by April 15, 2015.
        - Based on public comment and additional information the agency received about the availability of VOC controls, EPA is not finalizing a proposed requirement that Group 1 tanks control VOC emissions only if there is a change that potentially would increase the tank's emission – such as the addition of a well supplying the tank, or the refracture of an existing well. All Group 1 tanks subject to the rule must control VOC emissions.

Alternative Emissions Limit

- EPA also is establishing an alternative emissions limit for storage tanks that allows owners/operators to either:
    - Reduce VOC emissions at a tank by 95 percent, as required in the 2012 rule; or
    - Demonstrate emissions from a tank have dropped to less than 4 tons per year of VOCs without emission controls.
        - This alternative limit reflects the decline in emissions that occurs at most tanks over time and allows owners/operators to shift control equipment to higher-emitting tanks.
            - To qualify for this emissions limit, owners/operators have to document that a tank's monthly uncontrolled emissions have been below 4 tons per year for at least 12 consecutive months.
            - In addition, owners/operators must re-evaluate uncontrolled VOC emissions on a monthly basis. If emissions increase (at or above the 4 ton-per-year limit), owners/operators have 30 days to meet the 95 percent reduction requirement. However, if the increase was associated with the fracture or re-fracture of a well supplying the storage tank, owners/operators must meet the 95 percent control

limit as soon as liquids from the fractured or re-fractured well are routed to the tank.

- Similar requirements apply to storage vessels that have been taken out of service and then returned to service.

Clarifying Test Protocols for Control Equipment

- The 2012 NSPS allows owners/operators to use manufacturer-tested emission control device models (combustors) that have been demonstrated to reduce VOC emissions from storage tanks by 95 percent, rather than requiring field performance testing of these devices.
- Today's updates align the protocol that emission control manufacturers must use in testing the controls with the testing protocol required in EPA's 2012 air toxics regulations for storage tanks.
- EPA also is allowing tank owners/operators to use control devices that are designed to reduce VOC emissions by 95 percent, while the agency reviews issues raised in the reconsideration petitions related to field testing protocol requirements. EPA expects to address this issue by the end of 2014.

Reviewing Monitoring Requirements for Tanks That Already Have Controls

- The 2012 final NSPS required that tank owners/operators conduct a performance test and use a continuous parametric monitoring system (CPMS) to demonstrate that they are meeting requirements to reduce VOC emissions from tanks by 95 percent.
- EPA received several petitions asking that the agency reconsider this requirement, based on the large number of storage tanks affected each year and the remoteness of many of the well sites where the tanks are located. EPA is continuing to evaluate this issue and will address it by the end of 2014.
    - While the agency completes its evaluation of monitoring issues raised in the reconsideration petitions, the agency is streamlining compliance and monitoring requirements for tanks that have already installed VOC controls. For tanks with controls, the updates require monthly inspections of covers, closed-vent systems and control devices. This step is expected to minimize VOC emissions by leading to prompt repairs of leaks, while requiring little or no specialized monitoring training or equipment.

Timing of Annual Reports

- The 2012 final NSPS required that owners/operators submit an annual report on well completions, along with information on storage tanks and other equipment constructed or modified during the year. The rule gave owners/operators 30 days to submit the report, which must be certified by a senior company official. Several of the reconsideration petitions noted that 30 days is not enough time to compile the required information and obtain a senior official's signature. These updates give owners/operators 90 days to submit this report.

BACKGROUND

- On April 17, 2012, EPA issued cost-effective regulations, as required by the Clean Air Act, that reduce harmful air pollution from the oil and natural gas industry, while allowing continued, responsible growth in U.S. oil and natural gas production. The final rules included the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several of other sources of pollution in the oil and gas industry that were not previously regulated at the federal level.

- After EPA issued the final rule, the agency received petitions for reconsideration from several industry and environmental organizations, and the Texas Commission on Environmental Quality. EPA is continuing to evaluate other issues raised in those petitions.
    - Industry groups that petitioned for reconsideration are: the America's Natural Gas Alliance; the American Petroleum Association; Gas Processors Association; the Interstate Natural Gas Association of America; the Texas Oil and Gas Association; the Western Energy Alliance; REM Technology Inc.; and (jointly) the Independent Petroleum Association of America, Independent Oil and Gas Association of West Virginia, Inc., Kentucky Oil & Gas Association, Inc., Indiana Oil and Gas Association, Pennsylvania Independent Oil & Gas Association, Ohio Oil and Gas Association, and the Illinois Oil & Gas Association.
    - Environmental groups that petitioned for reconsideration are: Earthjustice; and (jointly) Clean Air Council, the Clean Air Task Force, Environmental Defense Fund, Group Against Smog and Pollution, the Natural Resources Defense Council and the Sierra Club.

Reducing Air Pollution from the Oil and Natural Gas Industry

EPA's Final New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants

April 17, 2012

Today's Action

- Updates standards issued in 1985 and 1999
- Continues growth in clean domestic energy production, while increasing environmental protection
- Relies on available, affordable technology already in use
- Offsets the cost of pollution controls through the capture of emissions
- Provides flexibility and transparency

> "[*I*]*t is vital that we take full advantage of our natural gas resources, while giving American families and communities confidence that natural and cultural resources, air and water quality, and public health and safety will not be compromised.*"
>
> *Executive Order Supporting Safe and Responsible Development of Unconventional Domestic Natural Gas Resources signed by President Obama on April 13, 2012*

Overview of Action

- On April 17, 2012, EPA issued rules that will ensure that domestic natural gas production can continue to grow in an environmentally responsible manner.
- A key feature of these rules will require companies to capture natural gas that escapes when hydraulically fractured gas wells are prepared for production -- gas that currently is going to waste in many areas.
- The rules are cost-effective: projected revenues from recovered natural gas are expected to offset costs, yielding a cost savings of $11 million to $19 million in 2015.
- EPA made a number of changes to the rules in response to public comment.
- The final rules provide flexibility while maintaining environmental benefits . They provide a phase-in period -- which ensures that equipment to capture natural gas is available in time to meet compliance deadlines – and set key requirements based on performance rather than on a specific technology.
- The rules also include incentives for industry to modernize equipment and reduce pollution early.
- The rules will reduce emissions of smog-forming volatile organic compounds (VOCs). These reductions are expected to help reduce ozone in areas where natural gas production occurs. The rules will also reduce emissions of air toxics. Air toxics are known or suspected to cause cancer and other serious health problems.
  - The rules will also yield co-benefits by reducing methane from natural gas wells. Methane is a potent greenhouse gas – more than 20 times as potent as carbon dioxide.

The Natural Gas Production Industry

Natural gas systems encompass wells, gas gathering and processing facilities, storage, and transmission and distribution pipelines.

Production & Processing

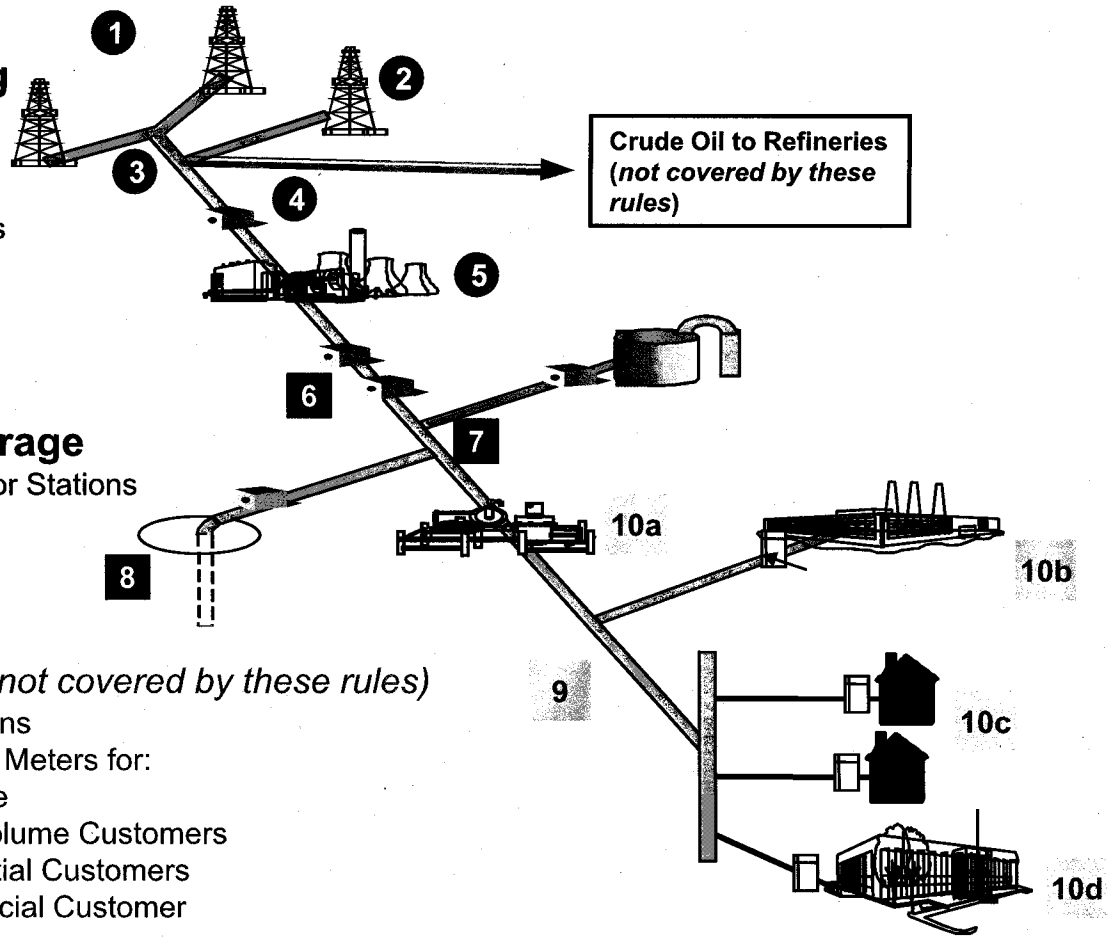
1. Drilling and Well Completion
2. Producing Wells
3. Gathering Lines
4. Gathering and Boosting Stations
5. Gas Processing Plant

Natural Gas Transmission & Storage

6. Transmission Compressor Stations
7. Transmission Pipeline
8. Underground Storage

Distribution *(not covered by these rules)*

9. Distribution Mains
10. Regulators and Meters for:
    a. City Gate
    b. Large Volume Customers
    c. Residential Customers
    d. Commercial Customer



Source: Adapted from American Gas Association and EPA Natural Gas STAR Program

Pollutants Emitted by the Oil and Natural Gas Industry Are a Health & Environmental Concern

- **VOCs** are one of the key ingredients in forming ozone (smog).
  - The oil and gas industry is the largest industrial source of VOC emissions in the U.S., based on data reported to the 2008 National Emissions Inventory.
  - Ozone is linked to asthma attacks, hospital and emergency department visits, and increased school absences, among other serious health effects.
  - Ozone used to be considered a summertime pollutant; but recently has become a problem in winter in some areas where significant natural gas production occurs.
  - In some areas, VOCs also help form fine particle pollution ($PM2._5$).
- **Air toxics** can cause cancer and other serious, irreversible health effects, such as neurological problems and birth defects.
- **Methane** reacts in the air to form ground-level ozone.

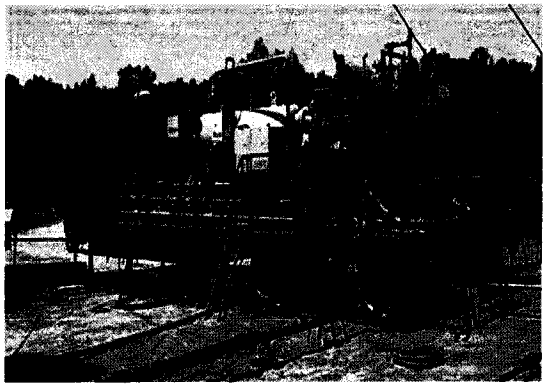
Source: 2008 NEI v2 http://www.epa.gov/ttn/chief/net/2008inventory.html

Clean Air Act Requirements

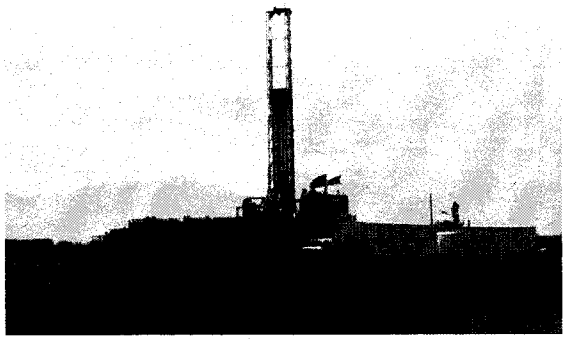
- The Clean Air Act requires EPA to set **new source performance standards** (NSPS) for industrial categories that cause, or significantly contribute to, air pollution that may endanger public health or welfare.
  - Each performance standard must be based on the "best system of emission reduction."
  - The law requires EPA to review and, if appropriate, revise new source performance standards every eight years.
  - EPA issued its two existing NSPS for the oil and gas industry in 1985.
- The Clean Air Act also requires EPA to set **standards for air toxics**, which are known or suspected to cause cancer and other serious health effects.
  - EPA must review these standards eight years after they are issued, to determine whether additional changes are necessary to reduce risk
  - EPA must review and revise as necessary these standards eight years after they are issued, to reflect better emission control practices, processes or technologies that have become available and are cost-effective
  - EPA's existing air toxics standards for the oil and natural gas industry were issued in 1999.
- EPA issued today's rules under a court deadline.

Reducing Pollution from Well Completions

- Today's rules **will reduce pollution** from natural gas wells that are hydraulically fractured, **without slowing production.**
- The rules **phase in requirements for capturing natural gas.** This phase-in provides time for equipment to be manufactured and operators to be trained to capture gas through a process known as a "green completion."
- Industry leaders already are using green completions as a smart business practice.
- Owners/operators of fractured and refractured wells may reduce pollution through flaring until Jan. 1, 2015; after that, gas capture is required.
- Wells that are refractured will not be considered affected facilities if they use green completions and meet recordkeeping/reporting requirements as of the effective date of the rule.
- Exploratory, delineation and low-pressure wells are exempt from green completion requirements; will have to flare.
- EPA streamlined **well completion notification and reporting requirements** to reduce burden to industry and states, while ensuring transparency and accountability.



Example of Green Completion Equipment (Source: Weatherford)



A natural gas well site. EPA photo.

Key Changes Since Proposal

Based on comments received during the public comment period, the final rule:

- Includes an updated definition for a "green completion"
  - Changed to focus on performance rather than technology, allowing greater flexibility, lowering costs and reducing the burden on equipment manufacturing and distribution.
- Eliminates state permitting "trigger" when wells are refractured if operators choose to use green completions (instead of flaring)
  - Refractured wells that use green completions will not be considered affected facilities. These wells will not trigger minor source permitting requirements in some states.
  - Refractured wells may choose to flare for now and phase in green completions by Jan. 1, 2015. These wells will be considered affected facilities for permitting purposes.
- Does not finalize requirements for compressors and pneumatic controllers in the transmission segment of this industry
  - Based on public comment, the agency concluded it needed additional information in order to set cost-effective standards for compressors and controllers in this segment, where VOC content of the gas generally is low.

Additional Requirements to Reduce Pollution

Today's rules also set requirements for several types of equipment that may vent or leak VOCs or air toxics.

Storage tanks

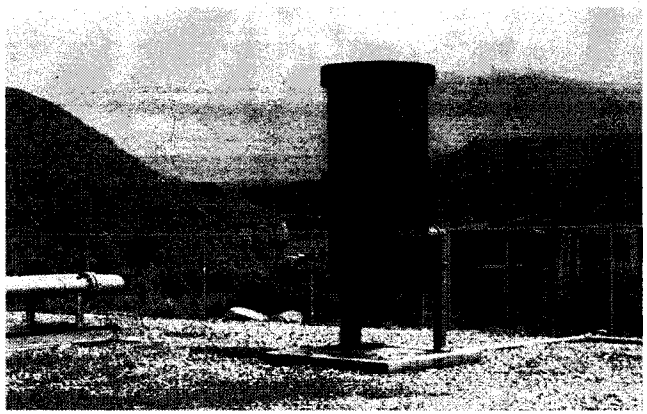
- EPA is phasing in requirements to reduce VOC emissions from new & modified tanks over one year, to ensure enough combustion devices are available to reduce the emissions.
- Requirement applies to both oil and natural gas production.
- EPA did not change air toxics standards for storage tanks; however emissions storage tanks in natural gas production sector will be counted toward determining a major source under the air toxics standards for oil & natural gas production.

Centrifugal compressors

- VOC reduction required for compressors with wet seal systems only; requirements do not apply in the natural gas transmission and storage segments, where VOC emissions generally are low.

Reciprocating compressors

- Rule requires replacement of rod packing, which can leak VOCs as it wears.
- Rule provides an alternative schedule for rod packing replacement that does not require monitoring and documentation of operating hours.



A combustion device and storage tanks. EPA photo

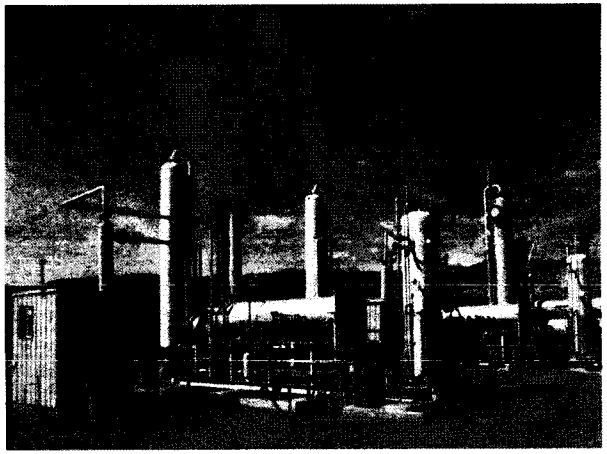
Additional Requirements, cont.

Pneumatic controllers

- Used to regulate conditions such as pressure and temperature.
- Rule affects high-bleed controllers, allows use only for critical applications, such as emergency shutoff valves.
- Requirements apply to controllers used in both oil and gas sectors; (in natural gas sector, applies only to sources upstream of the transmission line).

Glycol dehydrators

- Covered under two air toxics standards (oil and natural gas production; natural gas processing plants)
- Both standards retain existing standards for large dehydrators at major sources, set new standards for small dehydrators (not "area sources.")



Glycol dehydrators at a well production pad. EPA photo

Leaks from valves at gas processing plants

- Strengthened requirements for detection and repair for VOCs and air toxics.

Sweetening units at natural gas processing plants

- Must reduce sulfur dioxide emissions by 99 percent

Cost Savings and Emissions Reductions

- The rules will yield a cost savings of **$11 to $19 million** in 2015, because the value of natural gas and condensate that will be recovered and sold will offset costs.

- EPA estimates the following combined annual emission reductions when the rules are fully implemented :
  - **VOCs:** 190,000 to 290,000 tons
  - **Air toxics:** 12,000 to 20,000 tons
  - **Methane:** 1.0 to 1.7 million short tons (about 19 to 33 million tonnes of CO_2 equivalent (CO_2 e)

Today's Rules Respond to Public Comment

- EPA sought, and received, extensive public comment during the development of today's final rules. The agency:
  - Held two public meetings while developing the proposal,
  - Held three public hearings on the proposed rule
  - Received more than 156,000 written comments.

- Today's action responds to a number of those comments, in order to ensure the requirements of the rule are cost effective and allow continued, responsible growth in natural gas production.

For Additional Information

- To read more about today's action, visit: www.epa.gov/airquality/oilandgas

OVERVIEW OF FINAL AMENDMENTS TO AIR REGULATIONS FOR THE OIL AND NATURAL GAS INDUSTRY

FACT SHEET

OVERVIEW OF ACTION

- On April 17, 2012, the U.S. Environmental Protection Agency (EPA) issued cost-effective regulations to reduce harmful air pollution from the oil and natural gas industry while allowing continued, responsible growth in U.S. oil and natural gas production.

- The final rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry that currently are not regulated at the federal level. The rules for fractured gas wells rely on proven, cost-effective technology and practices that industry leaders are using today at about half of the fractured natural gas wells in the U.S.

- EPA extensively sought comment on the proposed rules, which the agency was required to review under the Clean Air Act. Today's final action includes a number of changes made in response to those comments. The final rules provide flexibility for industry to ensure equipment is available to capture natural gas in time to meet compliance deadlines, while maintaining the environmental benefits from the proposal. The rules also include incentives for industry to modernize equipment and reduce pollution early, and changes to reporting requirements to strengthen accountability.

- A key component of the final rules is expected to yield a nearly 95 percent reduction in VOCs emitted from more than 11,000 new hydraulically fractured gas wells each year. This significant reduction would be accomplished primarily through the use of a proven process – known as a "reduced emissions completion" or "green completion" -- to capture natural gas that currently escapes to the air.

- In a green completion, special equipment separates gas and liquid hydrocarbons from the flowback that comes from the well as it is being prepared for production. The gas and hydrocarbons can then be treated and used or sold, avoiding the waste of natural resources that cannot be renewed.

- The estimated revenues from selling the gas that currently goes to waste are expected to offset the costs of compliance, while significantly reducing pollution from this expanding industry. EPA's analysis of the rules shows a cost savings of $11 to $19 million when the rules are fully implemented in 2015.

- Some states, such as Wyoming and Colorado, require green completions, as do some cities,

including Fort Worth and Southlake, Texas. In addition, data provided to EPA's Natural Gas STAR program show that a number of companies are using green completions voluntarily. Today's rule builds on the emission reductions these leaders have taken, leveling the playing field across the industry and ensuring this smart environmental and business practice is used in all states where gas wells are fractured.

POLLUTION REDUCTION, CONTINUED NATURAL GAS PRODUCTION

- The VOC emission reductions from wells, combined with reductions from storage tanks and other equipment, are expected to help reduce ground-level ozone in areas where oil and gas production occurs. In addition, the reductions would yield a significant environmental co-benefit by reducing methane emissions from new and modified wells. Methane, the primary constituent of natural gas, is a potent greenhouse gas – more than 20 times as potent as carbon dioxide when emitted directly to the atmosphere. Oil and natural gas production and processing accounts for nearly 40 percent of all U.S. methane emissions, making the industry the nation's single largest methane source.

- Today's final rules also would protect against potential cancer risks from emissions of several air toxics, including benzene.

- EPA estimates the following combined annual emission reductions when the rules are fully implemented:
    - VOCs: 190,000 to 290,000 tons;
    - Air Toxics: 12,000 to 20.000 tons; and
    - Methane 1.0 to 1.7 million short tons [about 19 to 33 million tonnes of CO2 equivalent (CO2e)]
- Today's action continues EPA's efforts to support responsible oil and natural gas exploration and production that protect public health and the environment. In 2011, for example, the Agency signed a memorandum of understanding with the departments of Interior and Agriculture establishing a common process for the agencies to follow in analyzing the potential air quality impacts of proposed oil and gas activities on federally managed public lands. The collaborative approach in the agreement will provide increased certainty, clarity and transparency about requirements on public lands.

- To learn more about specific requirements of today's rules visit: www.epa.gov/airquality/oilandgas

COSTS AND BENEFITS

- Today's cost-effective rules will yield significant reductions in air pollution while offsetting the costs to industry. EPA estimates the combined rules will yield a cost savings of $11 to $19 million in 2015, because the value of natural gas and condensate that will be recovered and sold will offset costs.

- The VOCs and air toxics reductions in the rules are expected to improve outdoor air quality, protect against cancer risk from air toxics emissions and reduce health effects associated with exposure to ground-level ozone (smog). Exposure to ozone is linked to increased asthma attacks, hospital admissions and emergency room visits, and premature death. EPA was unable to model health benefit estimates for the rule, due to uncertainties about future locations of oil and gas emissions. Air quality changes associated with air toxics and VOC reductions can be highly localized.

- Today's rules also would yield significant reductions in methane, a potent greenhouse gas. EPA's Regulatory Impact Analysis for the rule estimates the value of the climate co-benefits that would result from this reduction at $440 million annually by 2015. This includes the value of climate-related benefits such as avoided health impacts, crop damage and damage to coastal properties.

AIR EMISSIONS FROM OIL AND GAS PRODUCTION IN THE U.S.

- In 2009, about 1.1 million wells were producing oil and natural gas in the United States. The wells are located in many areas of the country, including both urban and rural areas.

- The majority of new gas wells drilled today use a process known as hydraulic fracturing or "fracking." In this process, a mixture of water, chemicals and a "proppant" (usually sand) is pumped into a well at extremely high pressures to fracture rock and allow natural gas to escape. An estimated 11,400 new wells are fractured each year; EPA estimates another 1,400 existing wells are re-fractured to stimulate production or to produce natural gas from a different production zone.

- The gas these wells produce goes to gathering and boosting stations that take it to processing plants. These plants remove contaminants to make the gas ready for the pipelines that deliver it to commercial, industrial and residential customers. Transmission compression stations help move the gas through 1.5 million miles of natural gas pipelines across the United States.

- The oil and gas industry is a significant source of VOCs, which contribute to the formation of ground-level ozone (smog). Data provided to EPA's Natural Gas STAR Program show that some of the largest air emissions in the natural gas industry occur as natural gas wells that have been fractured are being prepared for production. During a stage of well completion known as "flowback," fracturing fluids, water, and reservoir gas come to the surface at a high velocity and volume. This mixture includes a high volume of VOCs and methane, along with air toxics such as benzene, ethylbenzene and n-hexane. The typical flowback process lasts from three to 10 days. Pollution also is emitted from other processes and equipment in the industry that prepare gas for sale and that assist in moving it through pipelines.

BACKGROUND

- Today's final action will cut emissions of smog-forming volatile organic compound (VOC) emissions and air toxics from several segments of the oil and gas industry. The final rules are the result of the review of four air regulations for the oil and natural gas industry required by the Clean Air Act: a new source performance standard for VOCs; a new source performance standard for sulfur dioxide; an air toxics standard for major sources of oil and natural gas production; and an air toxics standard for major sources of natural gas transmission and storage.

- The Clean Air Act requires EPA to set new source performance standards (NSPS) for industrial categories that cause, or significantly contribute to, air pollution that may endanger public health or welfare. EPA is required to review these standards every eight years. The existing NSPS – for VOCs and SO2 – were issued in 1985.

- EPA also must set standards for emissions of air toxics, also called hazardous air pollutants. Air toxics are pollutants known or suspected of causing cancer and other serious health effects. EPA must review conduct a residual risk review of these standards once time, eight years after the standard issued. The agency must conduct technology reviews of these standards every eight years.

- EPA's existing air toxics standards for oil and natural gas production, and the standards for natural gas transmission and storage were issued in 1999.

Litigation

- In January 2009, WildEarth Guardians and the San Juan Citizens Alliance sued EPA, alleging that the Agency had failed to review the new source performance standards and the major source air toxic standards for the oil and natural gas industry.

- In February 2010, the U.S. District Court for the District of Columbia issued a consent decree that requires EPA to take actions related to the review of these standards. EPA issued the proposed rule July 28, 2011. The consent decree, which was recently revised, required that EPA take final action by April 17, 2012.

Public comment

- EPA held two public meetings as it was developing the rules and three public hearings on the proposal. The agency received more than 156,000 comments on the proposal.

- EPA's Natural Gas STAR program has been working with U.S. oil and gas companies since 1993 to adopt proven, cost-effective technologies and practices that improve operational efficiency and reduce methane emissions. Many Gas STAR partners already are using the green completions that EPA is now requiring across the industry. For more information on EPA's Natural Gas STAR program, visit http://www.epa.gov/gasstar/index.html

- Additional information about hydraulic fracturing and EPA's work is available at http://www.epa.gov/hydraulicfracture/

FOR MORE INFORMATION ABOUT TODAY'S ACTION:

- The rule and other background information are posted at http://www.epa.gov/airquality/oilandgas. Information also is available at EPA's electronic public docket and comment system (http://www.regulations.gov,) using Docket ID Number EPA-HQ-OAR-2010-0505.

- The rule and materials also are available in hard copy at the EPA Docket Center's Public Reading Room, room 3334 in the EPA West Building, located at 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern time, Monday through Friday, excluding federal holidays.

- Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times

EPA's Air Rules for the Oil & Natural Gas Industry

SUMMARY OF KEY CHANGES TO THE NEW SOURCE PERFORMANCE STANDARDS

On April 17, 2012, the U.S. Environmental Protection Agency (EPA) issued cost-effective regulations, required by the Clean Air Act, to reduce harmful air pollution from the oil and natural gas industry while allowing continued, responsible growth in U.S. oil and natural gas production. The final rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry for which there are currently no federal standards. The rules for fractured gas wells rely on proven, cost-effective technology and practices used by industry leaders today, including those in EPA's Natural Gas STAR Program.

After considering the extensive comments received on the proposed rule, the final rule increases compliance flexibility for well owners and operators; streamlines notification, reporting, and recordkeeping; avoids unnecessary spending of state and private resources; enhances transparency and accountability; and maintains comparable environmental benefits.

KEY PROVISIONS IN THE FINAL RULE

- Green completions, also called reduced emission completions (or RECs), continue to be identified as the best system of emission reduction, but EPA has identified a transition period (until January 1, 2015) to ensure green completion equipment is broadly available. During this transition period, fractured and refractured wells must reduce their emissions through combustion devices (flares). To recognize the leadership of owners and operators who have already adopted green completions as a best management practice and to encourage others to become early adopters, while at the same time eliminating unnecessary expenditures of state resources, the final rule redefines actions that constitute modifications under the New Source Performance Standard program (NSPS).

COMMENTS SUBMITTED ON THE PROPOSED RULE

- Substantive comments were received on the proposed rule including a significant amount of new data. This information focused on a number of key issues, including:
    - The intended breadth and impact of the rule including clarification of the definitions of natural gas well and reduced emission completions;
    - The technical feasibility and cost effectiveness of reduced emission completions, including the availability of equipment need to perform green completions;
    - The rule's alignment with existing state permitting programs;
    - The advisability of pre-notification and annual reporting requirements; and
    - A variety of technical issues related to proposed controls of pipeline gas, pneumatic controllers, and storage tanks.

CHANGES MADE IN THE FINAL RULE

- ***The definition of natural gas well was clarified.***
  - In response to questions about the intended breadth of the rule, the definition of a natural gas well was expanded to provide more certainty to the regulated community as well as state regulators. Language was added to identify key indicators of natural gas wells, including the availability of appropriate gas collection infrastructure as well as drilling locations within the four geologic formation types generally accepted as gas-producing. The four formation types are high permeability gas, shale gas, other tight reservoir rock, and coal seam.

- ***The definition of green completion was clarified to focus on performance rather than identifying specific required technology for these completions.***
  - The changes allow greater flexibility, lower costs, and reduced burden on equipment manufacturing and distribution, while maintaining the intended emission reductions.

- ***Low-pressure wells were identified and exempted from green completion requirements.***
  - In addition to wildcat and delineation wells, the final rule exempts non-wildcat and non-delineation low-pressure wells from the need to conduct green completions because of technical infeasibility. Information gathered by EPA indicates that green completions are not feasible to conduct in approximately 87 percent of the natural gas wells fractured in coal bed methane formations. The change reduces approximately 10 percent of the fractured natural gas wells overall, which recognizes current technology limitations, lowers expected compliance costs of the rule and reduces anticipated burdens on equipment manufacturing and distribution.

- ***A transition period was identified before green completions would be required.***
  - The final rule allows affected sources until January 1, 2015 before they need to conduct green completions, ensuring sufficient time for needed cost-effective control equipment and trained operators to become broadly availability. During this transition period, flaring will be required to reduce VOC emissions by 95 percent and thus preserves comparable environmental benefits.

- ***Early adoption of green completions will be encouraged.***
  - The definition of modifications was revised to recognize the leadership of well owners and operators who have already adopted green completions as best management practices and to encourage others to become early adopters. Given that green completions minimize emission increases that would otherwise trigger requirements for modifications under NSPS, owners and operators of existing wells can choose to conduct refracturing activities without changing their state permit status. This revision also has the advantage of maintaining flexibility in the application of state permitting authority and resources without compromising emission reductions. Lastly, as an incentive for early installation of green

completion equipment, this change could have the effect of increasing its availability in ways that benefit supply and price.

- ***Pre-notification requirements were streamlined and annual reports were revised to enhance transparency and accountability.***
    - Pre-notification has been simplified to sending an email no later than 2 days prior to completion following the hydraulic fracturing or refracturing of a gas well. State pre-notification requirements were also determined to be sufficient for compliance as a way to avoid unnecessary duplication. Transparency and accountability have been enhanced by requiring a senior official to certify the accuracy of annual reports. In addition, the agency has provided more flexible and streamlined options for industry to structure their annual compliance reports, including allowing them to report emissions by company, not by source as was the case in the proposed rule.

- ***Does not finalize requirements for compressors and pneumatic controllers in the transmission segment of this industry***
    - Based on public comment, the agency concluded it needed additional information in order to set cost-effective standards for compressors and controllers in this segment, where VOC content of the gas generally is low.

- ***A variety of changes were made to encourage leak reductions from existing equipment and from storage vessels in response to technical comments.***
    - A number of technical changes were made as a result of comments received. Most notably, the final rule exempted from regulation low-bleed controllers (with bleed rates below 6 standard cubic feet per hour) located between the well-head and the point where the gas enters the transmission line, to encourage a quicker transition from high-bleed controllers. The requirements for high-bleed controllers were also phased in over one year to give manufacturers of these devices the time needed to test and document the gas bleed rate. A different metric was also identified to simplify the determination of which storage tanks are covered by the standards. Instead of the proposed throughput measurement, the final rule identified a regulatory cutoff of 6 tons of VOC emissions annually for storage tanks. In addition, the final rule provides a one year phase-in for required storage vessel combustion devices to ensure equipment availability.

EPA's Air Rules for the Oil & Natural Gas Industry

SUMMARY OF REQUREMENTS FOR PROCESSES AND EQUIPMENT AT NATURAL GAS WELL SITES

Equipment and processes at the well site may be covered by requirements under the New Source Performance Standards (NSPS) for volatile organic compounds, and the National Emissions Standard for Hazardous Air Pollutants (NESHAP) for oil and natural gas production. EPA has made a number of changes to these final rules based on public comments.

VOC REDUCTIONS DURING NATURAL GAS WELL COMPLETIONS

NSPS Requirements for New Hydraulically Fractured Wells (drilled after Aug. 23, 2011)

- To ensure that smog-forming volatile organic compounds (VOCs) are controlled without slowing natural gas production, EPA's final NSPS for VOCs establishes two phases for reducing VOCs during well completion. This approach will provide industry time to order and manufacture enough equipment to capture natural gas using a process called *green completions,* also known as "reduced emissions completions."

- EPA established the phased approach to address concerns raised in comments related to the availability of equipment and operators to conduct green completions in time to meet compliance dates in the proposed rule.

    - **Phase 1:** In the first phase (before Jan. 1, 2015), industry must reduce VOC emissions either by flaring using completion combustion device or by capturing the gas using green completions with a completion combustion device (unless combustion is a safety hazard or is prohibited by state or local regulations).
    - A completion combustion device burns off the gas that would otherwise escape during the well-completion period (combustion generally would occur through pit flaring). Industry may use completion combustion devices to reduce VOC emissions until Jan. 1, 2015, unless state or local requirements prohibit the practice or require more stringent controls. EPA encourages industry to begin using green completions during this time.

    - **Phase 2:** Beginning Jan. 1, 2015, operators must capture the gas and make it available for use or sale, which they can do through the use of green completions.

        - EPA estimates that use of green completions for the three- to 10-day flowback period reduces VOC emissions from completions and recompletions of hydraulically fractured wells by 95 percent at each well.

        - Both combustion and green completions will reduce the VOCs that currently escape into the air during well completion. However, capturing the gas through a green completion prevents a valuable resource from going to waste and does not generate NOx, which is a

byproduct of combustion.

- Methane, a potent greenhouse gas, and air toxics, which are linked to cancer and other serious health effects, also would be significantly reduced as a co-benefit of reducing VOCs.

- **Exceptions for new wells:**
  Green completions are not required for:
  - New exploratory ("wildcat") wells or delineation wells (used to define the borders of a natural gas reservoir), because they are not near a pipeline to bring the gas to market.
  - Hydraulically fractured low-pressure wells, where natural gas cannot be routed to the gathering line. Operators may use a simple formula based on well depth and well pressure to determine whether a well is a low-pressure well.
  - Owners/operators must reduce emissions from these wells using combustion during the well-completion process, unless combustion is a safety hazard or is prohibited by state or local regulations.

NSPS Requirements for Refractured Natural Gas Wells

- Natural gas wells can be re-fractured to stimulate production or to produce natural gas from a different production zone. Today's rules provide an incentive for owners and operators of existing wells to use green completions earlier than required:
  - Gas wells that are refractured and recompleted ***will not be considered to be "modified"*** if well owners and operators use green completions rather than flaring to reduce emissions, and they meet notification and reporting requirements for new wells.
    - In a number of states, this will allow owners/operators to refracture wells without triggering state permitting requirements. This flexibility reduces burden both to industry and permitting agencies, without compromising the environmental benefits of today's rule.
  - Owners/operators of refractured gas wells may choose to reduce emissions through flaring until January 1, 2015, when they must use green completions. These wells would be considered to be modified under today's rule.

NSPS Notification and Reporting Requirements for Well Completions

- EPA has added notification and reporting requirements that improve accountability while reducing burden to owners and operators.
- ***Notification:***
  - Owners or operators of hydraulically fractured and refractured natural gas wells must notify EPA (or in some cases, a state or local air agency) by e-mail no later than two days before completion work begins. The notification must include geographic coordinates of the affected wells and the estimated date that well completion will begin. In response to comments, EPA did not finalize a 30-day notification requirement.

- Well owners/operators who are subject to state advance notification requirements for well completions will meet EPA's requirements by meeting the state notification requirements.

- ***Reporting :***
  - Each year, owners/ operators must submit a report on their well completions that is certified by a senior company official attesting to the report's truth, accuracy and completeness. This report may be submitted in two forms:
    - A traditional report detailing each well completion, along with information on compressors, pneumatic controllers and storage tanks constructed, modified or reconstructed during the year. The report also must report any deviation from the requirements in today's rules.
    - In lieu of the traditional report for well completions, owners/operators may submit a list of well completions accompanied by a digital photograph of each green completion in progress. The photo must include digital stamps the geographic coordinates of the well and the date of the well completion.

REQUIREMENTS FOR OTHER EQUIPMENT AT NATURAL GAS WELL SITES

NSPS Requirements for New & Modified Pneumatic Controllers

- Pneumatic controllers are automated instruments used for maintaining a condition such as liquid level, pressure, and temperature at wells and gas processing plants, among other locations in the oil and gas industry. These controllers often are powered by high-pressure natural gas and may release gas (including VOCs and methane) with every valve movement, or continuously in many cases as part of their normal operations.

- The final rule affects high-bleed, gas-driven controllers (with a gas bleed rate greater than 6 standard cubic feet per hour) that are located between the wellhead and the point where gas enters the transmission pipeline.
  - Today's rule sets limits for controllers based on location. For controllers used at the well site, the gas bleed limit is 6 cubic feet of gas per hour at an individual controller.
  - The final rule phases in this requirement over one year, to give manufacturers of pneumatic controllers time to test and document that the gas bleed rate of their pneumatic controllers is below 6 cubic feet per hour.
  - Low-bleed controllers used at well sites (with a gas bleed rate less than 6 standard cubic feet per hour) are not subject to this rule.
- The final rule includes exceptions for applications requiring high-bleed controllers for certain purposes, including operational requirements and safety. The rule also includes requirements for initial performance testing, recordkeeping and annual reporting.

Requirements for Storage Vessels at the Well Site

- Storage tanks at natural gas well sites are commonly used to store condensate, crude oil and produced water. These tanks may be subject to two standards: the NSPS for VOCs, and the major source air toxics standards (NESHAP) for Oil and Natural Gas Production.

- ***NSPS requirements:*** New storage tanks with VOC emissions of 6 tons a year or more must reduce VOC emissions by at least 95 percent. EPA expects this will generally be accomplished by routing emissions to a combustion device.
    - To ensure enough combustion devices are available, the final rule provides a one-year phase-in for this requirement.
    - After one year, owners/operators of new storage tanks at sites with wells in production must comply. Owners/operators at sites with no wells in production will have 30 days to determine the emissions from a tank; and another 30 days to install controls.
- ***Air toxics requirements:*** In response to public comments, EPA did not finalize proposed air toxics standards for storage vessels *without* the potential for flash emissions, which currently are not regulated under the NESHAP for Oil and Natural Gas Production. The agency determined that it needs additional data in order to establish emission standards for this type of storage vessel. The previous standards for storage tanks *with* the potential for flash emissions remain in place.

- The final rule amends the definition of "associated equipment, " meaning that emissions from all storage vessels now will be counted toward determining whether a facility is a major source under the NESHAP for Oil and Natural Gas Production

Air Toxics Requirements for Glycol Dehydrators at the Well Site

- Glycol dehydrators, used to remove water vapor from gas, are subject to one of two air toxics standards, depending on their location. Dehydrators located at the well site are subject to the NESHAP for Oil & Natural Gas Production.

- Today's rule retains the existing standards for large glycol dehydrators and sets new standards for small glycol dehydrators. A glycol dehydrator is used to remove excess water vapor from natural gas.
    - ***Large dehydrators:*** The final rule also retains the existing the 1-ton-per year benzene compliance option for large glycol dehydrators, meaning operators may reduce benzene emissions from large dehydrators to less than 1 ton per year as an alternative to reducing total air toxics emissions by 95 percent.

    - ***Small dehydrators:*** A dehydrator is considered small if it has an annual average natural gas throughput of less than 85,000 standard cubic meters per day, or actual annual average benzene emissions of less than 1 ton per year.

        - Both existing and new small glycol dehydrators must meet a unit-specific limit for emissions of BTEX (benzene, toluene, ethylbenzene and xylene) that is based on the unit's natural gas throughput and gas composition. The limit is determined by applying a formula set out in the final rule.

- New small glycol dehydrators must comply with the air toxics requirements immediately upon startup or within 60 days after the final rule is published in the Federal Register, whichever is later. Existing small glycol dehydrators must comply within three years after the effective date of the rule. A small glycol dehydrator is considered existing if construction or reconstruction

began before Aug. 23, 2011.

- Today's rule applies only to sources that are considered "major sources" of air toxics. A major source emits 10 or more tons a single air toxic and 25 tons or more of a combination of toxics in a year.

MORE INFORMATION

- For summary information on requirements for other types of facilities, or to read the final rules, visit www.epa.gov/airquality/oilandgas

EPA's Air Rules for the Oil & Natural Gas Industry

SUMMARY OF REQUREMENTS FOR PROCESSES AND EQUIPMENT AT NATURAL GAS GATHERING & BOOSTING STATIONS

A gathering and boosting station collects gas from multiples wells and moves it toward the natural gas processing plant. Equipment and processes at gathering and boosting stations may be covered by requirements under the New Source Performance Standards (NSPS) for volatile organic compounds, and the National Emissions Standard for Hazardous Air Pollutants (NESHAP) for oil and natural gas production. EPA has made a number of changes to these final rules based on public comments.

REQUIREMENTS TO REDUCE VOCs

NSPS Requirements for New and Modified Compressors

- Compression is necessary to move natural gas along a pipeline. EPA's final rules will reduce VOC emissions from two types of compressors used at gathering and boosting stations: centrifugal compressors and reciprocating compressors.
- ***Centrifugal compressors*** - Centrifugal compressors are equipped with either wet seal systems, or dry seal systems.
    - Compressors with wet seals use oil as a barrier to keep gas from escaping. The gas that becomes absorbed in the oil is continuously vented, along with the VOCs and air toxics it contains. The final rule requires a 95 percent reduction in VOC emissions from compressors with wet seal systems. This can be accomplished through flaring, or by routing captured gas back to a compressor suction or fuel system.
    - EPA sought comments on the proposed requirements for compressors using dry seal systems, which have low VOC emissions. As a result of those comments, today's final rule does not apply to compressors using dry seals, meaning these compressors are not "affected facilities." EPA encourages owners/operators to use compressors with dry seal systems where possible.
- ***Requirements for reciprocating compressors*** – Today's final rule requires the replacement of replace rod packing systems in reciprocating compressors. Over time, these packing systems can wear, leaking gas and VOCs.
    - The rule provides two options for replacing rod packing:
        - Every 26,000 hours of operation (operating hours must be monitored and documented); or
        - Every 36 months (monitoring and documentation of operating hours not required).
- Today's rule also includes requirements for initial performance testing, recordkeeping and annual reporting.

- The compliance date for compressors is at initial startup, or 60 days after the final rule is published in the Federal Register, whichever is later.

NSPS Requirements for New and Modified Pneumatic Controllers

- Pneumatic controllers are automated instruments used for maintaining liquid levels, pressure, and temperature at wells and gas processing plants, among other locations in the oil and gas industry. These controllers often are powered by high-pressure natural gas and may release gas (including VOCs and methane) with every valve movement, or continuously in many cases as part of their normal operations.

- The final rule affects high-bleed, gas-driven controllers (with a gas bleed rate greater than 6 standard cubic feet per hour) that are located between the wellhead and the point where gas enters the transmission pipeline.
    - Today's rule sets limits for controllers based on location. For controllers used at gathering and boosting stations, the gas bleed limit is 6 standard cubic feet of gas per hour at an individual controller.
    - The final rule phases in this requirement over one year, to give manufacturers of pneumatic controllers time to test and document that the gas bleed rate of their pneumatic controllers is below 6 cubic feet per hour.
    - Low-bleed controllers used at gathering and boosting stations (with a gas bleed rate less than 6 standard cubic feet per hour) are not subject to this rule.
- The final rule includes exceptions for applications requiring high-bleed controllers for certain purposes, including operational requirements and safety. The rule also includes requirements for initial performance testing, recordkeeping and annual reporting.

Requirements for Storage Vessels at Gathering & Boosting Stations

- Storage tanks at gathering and boosting stations generally are used to store condensate. These tanks may be subject to two standards: the NSPS for VOCs, and the major source air toxics standards (NESHAP) for Oil and Natural Gas Production.

- ***NSPS requirements:*** Storage tanks with VOC emissions of 6 tons a year or more must reduce VOC emissions by at least 95 percent. EPA expects this will generally be accomplished by routing emissions to a combustion device.
    - To ensure enough combustion devices are available to meet this requirement, the final rule provides a one-year phase-in for this requirement.
- ***Air toxics requirements:*** In response to public comments, EPA did not finalize proposed air toxics standards for storage vessels *without* the potential for flash emissions, which currently are not regulated under the NESHAP for Oil and Natural Gas Production. The agency determined that it needs additional data in order to establish emission standards for this type of storage vessel. The previous standards for storage tanks *with* the potential for

flash emissions remain in place.

- The final rule amends the definition of "associated equipment, " meaning that emissions from all storage vessels now will be counted toward determining whether a production field facility is a major source under the NESHAP for Oil and Natural Gas Production

Air Toxics Requirements for Glycol Dehydrators

- Glycol dehydrators, used to remove water vapor from gas, are subject to one of two air toxics standards, depending on their location. Dehydrators located at gathering & boosting stations are subject to the NESHAP for Oil & Natural Gas Production.

- Today's rule retains the existing standards for large glycol dehydrators and sets new standards for small glycol dehydrators. A glycol dehydrator is used to remove excess water vapor from natural gas.
    - ***Large dehydrators:*** The final rule also retains the existing the 1-ton-per year benzene compliance option for large glycol dehydrators, meaning operators may reduce benzene emissions from large dehydrators to less than 1 ton per year as an alternative to reducing total air toxics emissions by 95 percent.

    - ***Small dehydrators:*** A dehydrator is considered small if it has an annual average natural gas throughput of less than 85,000 standard cubic meters per day, or actual annual average benzene emissions of less than 1 ton per year.

        - Both existing and new small glycol dehydrators must meet a unit-specific limit for emissions of BTEX (benzene, toluene, ethylbenzene and xylene) that is based on the unit's natural gas throughput and gas composition. The limit is determined by applying a formula set out in the final rule.

- New small glycol dehydrators must comply with the air toxics requirements immediately upon startup or within 60 days after the final rule is published in the Federal Register, whichever is later. Existing small glycol dehydrators must comply within three years after the effective date of the rule. A small glycol dehydrator is considered existing if construction or reconstruction began before Aug. 23, 2011.

- Today's rule applies only to sources that are considered "major sources" of air toxics. A major source emits 10 or more tons of a single air toxic or 25 tons or more of a combination of toxics in a year.

MORE INFORMATION

- For summary information on requirements for other types of facilities, or to read the final rules, visit www.epa.gov/airquality/oilandgas

EPA's Air Rules for the Oil & Natural Gas Industry

SUMMARY OF REQUREMENTS FOR PROCESSES AND EQUIPMENT AT NATURAL GAS PROCESSING PLANTS

Natural gas processing plants remove impurities from "raw" gas to prepare it for use by industrial and residential for the pipeline. Equipment and processes at natural gas processing plants may be covered by requirements under the New Source Performance Standards (NSPS) for volatile organic compounds, and the National Emissions Standard for Hazardous Air Pollutants (NESHAP) for oil and natural gas production. EPA has made a number of changes to these final rules based on public comments.

NSPS Requirements for New and Modified Compressors

- Compression is necessary to move natural gas along a pipeline. The final rule will reduce VOC emissions from two types of compressors: centrifugal compressors and reciprocating compressors.
- The final rule establishes requirements for two types of compressors that may be used at gas processing plants located between the wellhead and the point at which gas enters the transmission pipeline:
- ***Centrifugal compressors*** - Centrifugal compressors are equipped with either wet seal systems, or dry seal systems.
    - Compressors with wet seals use oil as a barrier to keep gas from escaping. The gas that becomes absorbed in the oil is continuously vented, along with the VOCs and air toxics it contains. The final rule requires a 95 percent reduction in VOC emissions from compressors with wet seal systems. This can be accomplished through flaring, or by routing captured gas back to a compressor suction or fuel system.
    - EPA sought comments on the proposed requirements for compressors using dry seal systems, which have low VOC emissions. As a result of those comments, today's final rule does not apply to compressors using dry seals, meaning these compressors are not "affected facilities." EPA encourages owners/operators to use compressors with dry seal systems where possible.
- ***Requirements for reciprocating compressors*** – Today's final rule requires the replacement of replace rod packing systems in reciprocating compressors. Over time, these packing systems can wear, leaking gas and VOCs.
    - The rule provides two options for replacing rod packing:
        - Every 26,000 hours of operation (operating hours must be monitored and documented); or
        - Every 36 months (monitoring and documentation of operating hours not required).

- Today's rule also includes requirements for initial performance testing, recordkeeping and annual reporting.
- The compliance date for compressors is at initial startup, or 60 days after the final rule is published in the Federal Register, whichever is later.

NSPS Requirements for New and Modified Pneumatic Controllers

- Pneumatic controllers are automated instruments used for maintaining a condition such as liquid level, pressure, and temperature at wells and gas processing plants, among other locations in the oil and gas industry. These controllers often are powered by high-pressure natural gas and may release gas (including VOCs and methane) with every valve movement, or continuously in many cases as part of their normal operations.

- The final rule affects continuous-bleed, gas-driven controllers located at gas processing plants. The VOC emission limit for these controllers is zero.
- The final rule includes exceptions for applications requiring high-bleed controllers for certain purposes, including operational requirements and safety. The rule also includes requirements for initial performance testing, recordkeeping and annual reporting.

Leak Detection and Repair Requirements

- The final regulations strengthen the leak detection and repair requirements that apply to existing natural gas processing plants. The compliance date for new sources for this requirement is 60 days after the final rule is published in the Federal Register; existing sources covered by the air toxics rule have an additional year to comply.

Sulfur Dioxide (SO_2) Requirements for New & Modified Sweetening Units

- A sweetening unit is removes sulfur from natural gas. Today's final rule strengthens the previous standards by requiring sweetening units at natural gas processing plants to reduce SO2 emissions by 99.9 percent. This requirement applies to units with a sulfur production rate of at least five long tons per day.

Requirements for Storage Vessels at Natural Gas Processing Plants

- Storage tanks at natural gas processing plants generally are used to store condensate. These tanks may be subject to two standards: the NSPS for VOCs; and the major source air toxics standards (NESHAP) for Oil and Natural Gas Production.

- ***NSPS requirements:*** New storage tanks with VOC emissions of 6 tons a year or more must reduce VOC emissions by at least 95 percent. EPA expects this will generally be accomplished by routing emissions to a combustion device.
    - To ensure enough combustion devices are available to meet this requirement, the final rule provides a one-year phase-in for this requirement.

- ***Air toxics requirements:*** In response to public comments, EPA did not finalize proposed air toxics standards for storage vessels *without* the potential for flash emissions, which currently are not regulated under the NESHAP for Oil and Natural Gas Production. The agency determined that it needs additional data in order to establish emission standards for this type of storage vessel. The previous standards for storage tanks *with* the potential for flash emissions remain in place.

Air Toxics Requirements for Glycol Dehydrators

- Glycol dehydrators, used to remove water vapor from gas, are subject to one of two air toxics standards, depending on their location. Dehydrators located at natural gas processing plants are subject to the NESHAP for Oil & Natural Gas Production.

- Today's rule retains the existing standards for large glycol dehydrators and sets new standards for small glycol dehydrators. A glycol dehydrator is used to remove excess water vapor from natural gas.
    - ***Large dehydrators:*** The final rule also retains the existing the 1-ton-per year benzene compliance option for large glycol dehydrators, meaning operators may reduce benzene emissions from large dehydrators to less than 1 ton per year as an alternative to reducing total air toxics emissions by 95 percent.

    - ***Small dehydrators:*** A dehydrator is considered small if it has an annual average natural gas throughput of less than 85,000 standard cubic meters per day, or actual annual average benzene emissions of less than 1 ton per year.

        - Both existing and new small glycol dehydrators must meet a unit-specific limit for emissions of BTEX (benzene, toluene, ethylbenzene and xylene) that is based on the unit's natural gas throughput and gas composition. The limit is determined by applying a formula set out in the final rule.

    - New small glycol dehydrators must comply with the air toxics requirements immediately upon startup or within 60 days after the final rule is published in the Federal Register, whichever is later. Existing small glycol dehydrators must comply within three years after the effective date of the rule. A small glycol dehydrator is considered existing if construction or reconstruction began before Aug. 23, 2011.

    - Today's rule applies only to sources that are considered "major sources" of air toxics. A major source emits 10 or more tons of a single air toxic or 25 tons or more of a combination of toxics in a year.

MORE INFORMATION

- For summary information on requirements for other types of facilities, or to read the final rules, visit www.epa.gov/airquality/oilandgas

EPA's Air Rules for the Oil & Natural Gas Industry

SUMMARY OF REQUREMENTS FOR EQUIPMENT AT NATURAL GAS COMPRESSOR STATIONS

Natural gas compressor stations move gas along a pipeline. In addition to compressors, compressors stations often include equipment to remove and store water vapor, condensate and other remaining impurities. Equipment and processes at natural gas compressor stations may be covered by requirements under the New Source Performance Standards (NSPS) for volatile organic compounds, and the National Emissions Standard for Hazardous Air Pollutants (NESHAP) for Natural Gas Transmission and Storage. EPA has made a number of changes in the final rules based on public comments.

NSPS Requirements for Compressors and Pneumatic Controllers Do Not Apply

- EPA is not finalizing standards for compressors or pneumatic controllers in the transmission segment of this industry. Based on public comment, the agency concluded it needed additional information in order to set cost-effective standards for compressors and controllers in this segment, where VOC content of the gas generally is low.

REQUIREMENTS FOR OTHER EQUIPMENT

NSPS Requirements for Storage Vessels at Compressor Stations

- Storage tanks at compressor stations are commonly used to store condensate, and water. New storage tanks with VOC emissions of 6 tons a year or more must reduce VOC emissions by at least 95 percent. EPA expects this will generally be accomplished by routing emissions to a combustion device.
    - To ensure enough combustion devices are available to meet this requirement, the final rule provides a one-year phase-in for this requirement.

Air Toxics Requirements for Glycol Dehydrators

- Glycol dehydrators, used to remove water vapor from gas, are subject to one of two air toxics standards, depending on their location. Glycol dehydrators located at compressor stations are subject to the NESHAP for Natural Gas Transmission and Storage.

- Today's rule retains the existing standards for large glycol dehydrators and sets new standards for small glycol dehydrators. A glycol dehydrator is used to remove excess water vapor from natural gas.
    - ***Large dehydrators:*** The final rule also retains the existing the 1-ton-per year benzene compliance option for large glycol dehydrators, meaning operators may reduce benzene emissions from large dehydrators to less than 1 ton per year as an alternative to reducing total air toxics emissions by 95 percent.
        - ***Small dehydrators:*** A dehydrator is considered small if it has an annual average natural gas flow rate of less than 283,000 standard cubic meters per day or

annual average benzene emissions of less than 1 ton.

- Both existing and new small glycol dehydrators must meet a unit-specific limit for emissions of BTEX (benzene, toluene, ethylbenzene and xylene) that is based on the unit's natural gas throughput and gas composition. The limit is determined by applying a formula set out in the final rule.
- New small glycol dehydrators must comply with the air toxics requirements immediately upon startup or within 60 days after the final rule is published in the Federal Register, whichever is later. Existing small glycol dehydrators must comply within three years after the effective date of the rule. A small glycol dehydrator is considered existing if construction or reconstruction began before Aug. 23, 2011.

- Today's air toxics standards apply only to sources that are considered "major sources" of air toxics. A major source emits 10 or more tons of a single air toxic or 25 tons or more of a combination of toxics in a year.

MORE INFORMATION

- For summary information on requirements for other types of facilities, or to read the final rules, visit www.epa.gov/airquality/oilandgas

EPA's Air Rules for the Oil & Natural Gas Industry

SUMMARY OF REQUIREMENTS FOR EQUIPMENT USED IN OIL PRODUCTION

In general, this rule has no direct impact on oil wells. Under some circumstances, however, certain equipment downstream from oil wells may be covered by requirements under the New Source Performance Standards (NSPS) for volatile organic compounds issued April 17, 2012. EPA has made a number of changes to these final rules based on public comments.

NSPS Requirements for Well Completions Do Not Apply

- EPA's final NSPS for well completions applies to natural gas wells that are hydraulically fractured. It does not apply to oil wells.

REQUIREMENTS FOR EQUIPMENT USED IN OIL PRODUCTION

NSPS Requirements for New & Modified Pneumatic Controllers

- Pneumatic controllers are automated instruments used for maintaining liquid levels, pressure, and temperature at wells and gas processing plants, among other locations in the oil and gas industry. These controllers often are powered by high-pressure natural gas and may release gas (including VOCs and methane) with every valve movement, or continuously in many cases as part of their normal operations.

- The final rule affects high-bleed, gas-driven controllers (with a gas bleed rate greater than 6 standard cubic feet per hour).

- Today's rule sets limits for controllers based on location. For controllers used at the well site, the gas bleed limit is 6 cubic feet of gas per hour at an individual controller. A controller is subject to this rule if it was in stock or ordered after Aug. 23, 2011.
    - The final rule phases in this requirement over one year, to give manufacturers of pneumatic controllers time to test and document that the gas bleed rate of their pneumatic controllers is below 6 cubic feet per hour.
    - Low-bleed controllers (with a gas bleed rate less than 6 standard cubic feet per hour) are not subject to this rule.

- The final rule includes exceptions for applications requiring high-bleed controllers for certain purposes, including operational requirements and safety. The rule also includes requirements for initial performance testing, recordkeeping and annual reporting.

Requirements for Storage Vessels at the Well Site

- Storage tanks at natural gas wells are commonly used to store condensate, crude oil and produced water. These tanks may be subject to two standards: the NSPS for VOCs, and the major source air toxics standards (NESHAP) for Oil and Natural Gas Production.

- ***NSPS requirements:*** New storage tanks with VOC emissions of 6 tons a year or more must reduce VOC emissions by at least 95 percent. EPA expects this will generally be accomplished by routing

emissions to a combustion device.

  - To ensure enough combustion devices are available to meet this requirement, the final rule provides a one-year phase-in for this requirement. After one year, owners/operators of new storage tanks will have 30 days to determine the emissions from a tank; and another 30 days to install controls.

- ***Air toxics requirements:*** In response to public comments, EPA did not finalize proposed air toxics standards for storage vessels *without* the potential for flash emissions, which currently are not regulated under the NESHAP for Oil and Natural Gas Production. The agency determined that it needs additional data in order to establish emission standards for this type of storage vessel. The previous standards for storage tanks *with* the potential for flash emissions remain in place.

- The final rule amends the definition of "associated equipment, " meaning that emissions from all storage vessels now will be counted toward determining whether a facility is a major source under the NESHAP for Oil and Natural Gas Production.

Petroleum Refineries

- Petroleum refineries are addressed under separate regulations.

MORE INFORMATION

- For summary information on requirements for other types of facilities, or to read the final rules, visit www.epa.gov/airquality/oilandgas

EPA's Air Rules for the Oil & Natural Gas Industry

INFORMATION FOR STATES ON ATTAINMENT PLANNING, PERMITTING AND COMPLIANCE

For the first time EPA is regulating volatile organic compound (VOC) emissions generated during the completion stage of hydraulically fractured natural gas wells. Under the final New Source Performance Standards (NSPS) for the Oil and Natural Gas Sector, these activities will be subject to work practice standards that take advantage of cost-effective technologies in common use today by many oil and gas well owners and operators.

- **New wells.** The NSPS has identified green completions, also called reduced emission completions (RECs) and combustion of escaping gas as the Best System of Emission Reduction. Combustion controls (flaring) will also be allowed as a work practice standard until January 1, 2015, to allow time for REC equipment to be broadly available.

- **Modified wells.** Refractured gas wells that use RECs and conform to the notification and reporting requirements for new sources will not be subject to the NSPS. Wells that do not use RECs will be subject to the NSPS provisions for modified wells, which are the same as the requirements for new wells (RECs or combustion controls prior to January 2015, and RECs after that date).

- The NSPS constitutes a federally required minimum level of control. States have the flexibility to put their own programs in place or implement existing programs as long as they are at least as protective as the NSPS.

- EPA will soon be designating areas as nonattainment for the 2008 ozone National Ambient Air Quality Standards (NAAQS) ozone NAAQS. Nonattainment means an area is not meeting the national standards for outdoor air quality. Some of these areas have significant oil and gas sector activities. The nonattainment areas will be required to submit state implementation plans (SIPs) in 2015 and to attain the standard by 2015 and 2018 for areas classified as "Marginal" and "Moderate," respectively. A few areas classified as "Serious" must attain by 2021. States can take credit for federal measures including this NSPS in their nonattainment planning.

- Meeting the oil and gas NSPS using either flaring or RECs will reduce emissions of VOCs, which are a key ingredient in forming smog that threatens air quality and harms public health. Flaring during the transitional period will result in some increases of nitrogen oxides (NOx). The new rule also includes requirements for reducing emissions of air toxics.

Implications for Attainment Planning

- The Oil and Gas Sector NSPS will help states make progress in attaining the ozone NAAQS in nonattainment areas where there is significant well development. States can include the

federal NSPS as a federally enforceable strategy in their nonattainment SIPs. States may "take credit" for the NSPS in their SIPs towards meeting two requirements:

  - This rule is expected to achieve 95 percent control of new VOC emissions from new gas wells, making it easier for states to obtain the overall reduction in emissions they need to attain the ozone NAAQS without adding any federal or state permitting requirements.

  - SIPs in Moderate and Serious areas must also show "reasonable further progress" in controlling emissions in the years before they attain the ozone NAAQS. In most areas, states will choose to measure this progress relative to emissions in 2011. In areas that had wells drilled in 2011 and will continue to have more wells drilled in the years ahead, the 95 percent control from the NSPS will provide emission reductions that can be credited toward the reasonable further progress requirement. In areas that had no or few wells drilled in 2011 but that will see drilling activity in the future, the 95 percent control from the NSPS will ensure that emissions from new well development do not impede meeting the reasonable further progress requirement.

- The NSPS will also help areas that now meet the ozone standards to continue to meet those standards, even if well development in the area increases.

Implications for Permitting

- While the NSPS regulates new wells with uncontrolled emissions that are below the existing thresholds that define a major source for pre-construction permit and Title V operating permit purposes, EPA is not changing in any way the actual emission thresholds that trigger the requirements for major source permitting.

- In the absence of the NSPS, some fractured gas wells could have emissions above the thresholds that trigger major source pre-construction and Title V permitting requirements in some ozone nonattainment areas. Federally enforceable emissions limits, such as those in the NSPS, are counted when determining whether a well's emissions exceed these applicability thresholds. Wells complying with the NSPS will not trigger major source permitting thresholds.

- Wells complying with the NSPS may also have emissions low enough to avoid needing a minor source permit from the state.

- The NSPS recognizes that some state permitting programs already regulate these wells, such as Wyoming and Texas. States that do not already have a permitting program for these wells are free to determine whether they want to have one.

- Some states require any source subject to a federal NSPS to get a state minor source air permit. The final NSPS provides a path (RECs) for existing wells that are refractured to avoid falling under the scope of the NSPS at all, thereby avoiding any automatic requirement to

get a state minor source permit. However, states may include modified wells in their minor source permitting rules if they choose.

- In Indian country, EPA is developing a general permit for these sources, which will need to get a minor source permit from their EPA regional office by 2013.

Implications for Compliance

- The NSPS also reduces compliance burdens on states and industry and takes advantage of existing state compliance mechanisms. To minimize reporting burden to states and industry, the final rule requires pre-notification by email no later than two days prior to the start of hydraulic fracturing of gas wells rather than the 30-day advance notice and two-day confirmation that EPA had proposed.
- The final rule also offers an alternative to the traditional annual compliance report, allowing industry to maintain a list of completed wells and to document well completion using photographs that are digitally stamped with the date, time and latitude/longitude of the completion. If a state has its own advance notice system, that system can be used instead of requiring the source to report to EPA.

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-758-13

M E M O R A N D U M

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: October 17, 2013

SUBJECT: Air Toxics, Lead-Based Paint, and Asbestos (ATLAS) Section Compliance Activities – September 2013

MACT Compliance Inspections	0
Asbestos Demolition/Renovation NESHAP Inspections	14
Asbestos AHERA Inspections	18
Asbestos State Rules Only Inspections	2
Asbestos Notifications Accepted	165
Asbestos Phone Calls Answered	360
Asbestos Individuals Certifications Approved/Disapproved	65/3
Asbestos Company Certifications/Re-certifications	0/1
Asbestos Alternate Work Practices Approved/Disapproved	6/0
Lead-Based Paint (LBP) Inspections	0
LBP Notifications Approved	0
LBP Phone Calls Answered	41
LBP Letters Prepared and Mailed	15
LBP Courses Reviewed/Approved	1/1
LBP Course Audits	0
LBP Individual Certifications Approved/Disapproved	10/0

LBP Firm Certifications	8
Notices of Violation Issued	0
Compliance Advisories Issued	5
Warning Letters Issued	1
Settlement Agreements Finalized	1
Penalties Agreed to:	$2025.00
Roger Gough/Smith's Food and Drug and Jason Krut/CentiMark Corporation	$2025.00

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-1210-13

M E M O R A N D U M

TO: Air Quality Board

FROM: Bryce C. Bird, Executive Secretary

DATE: October 17, 2013

SUBJECT: Compliance Activities – September 2013

Annual Inspections Conducted:

Major..... 14
Synthetic Minor 6
Minor 18

On-Site Stack Test Audits Conducted: 7

Stack Test Report Reviews: 50

On-Site CEM Audits Conducted: 3

Emission Reports Reviewed: 5

Temporary Relocation Requests Reviewed & Approved: 6

Fugitive Dust Control Plans Reviewed & Accepted: 87

Soil Remediation Report Reviews: 0

[1]Miscellaneous Inspections Conducted: 11

Complaints Received: 19

Breakdown Reports Received: 3

195 North 1950 West • Salt Lake City, Utah
Mailing Address: P.O. Box 144820 • Salt Lake City, Utah 84114-4820
Telephone (801) 536-4000 • Fax (801)536-4099 • T.D.D. (801) 536-4414
www.deq.utah.gov

Compliance Actions Resulting From a Breakdown..... 0

Warning Letters Issued: 0

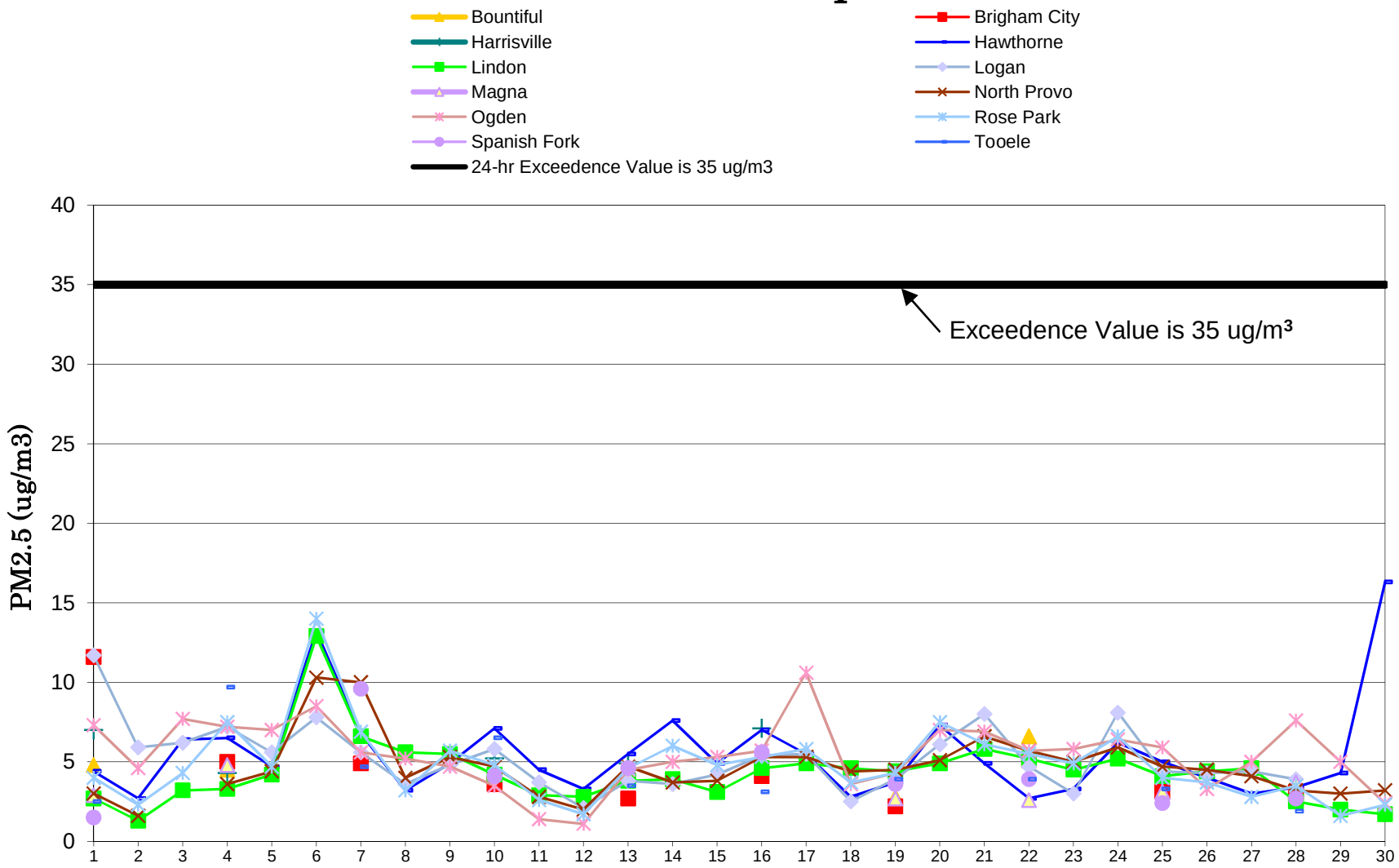
Notices of Violation Issued:..... 0

Compliance Advisories Issued:..... 6

Settlement Agreements Reached: 0

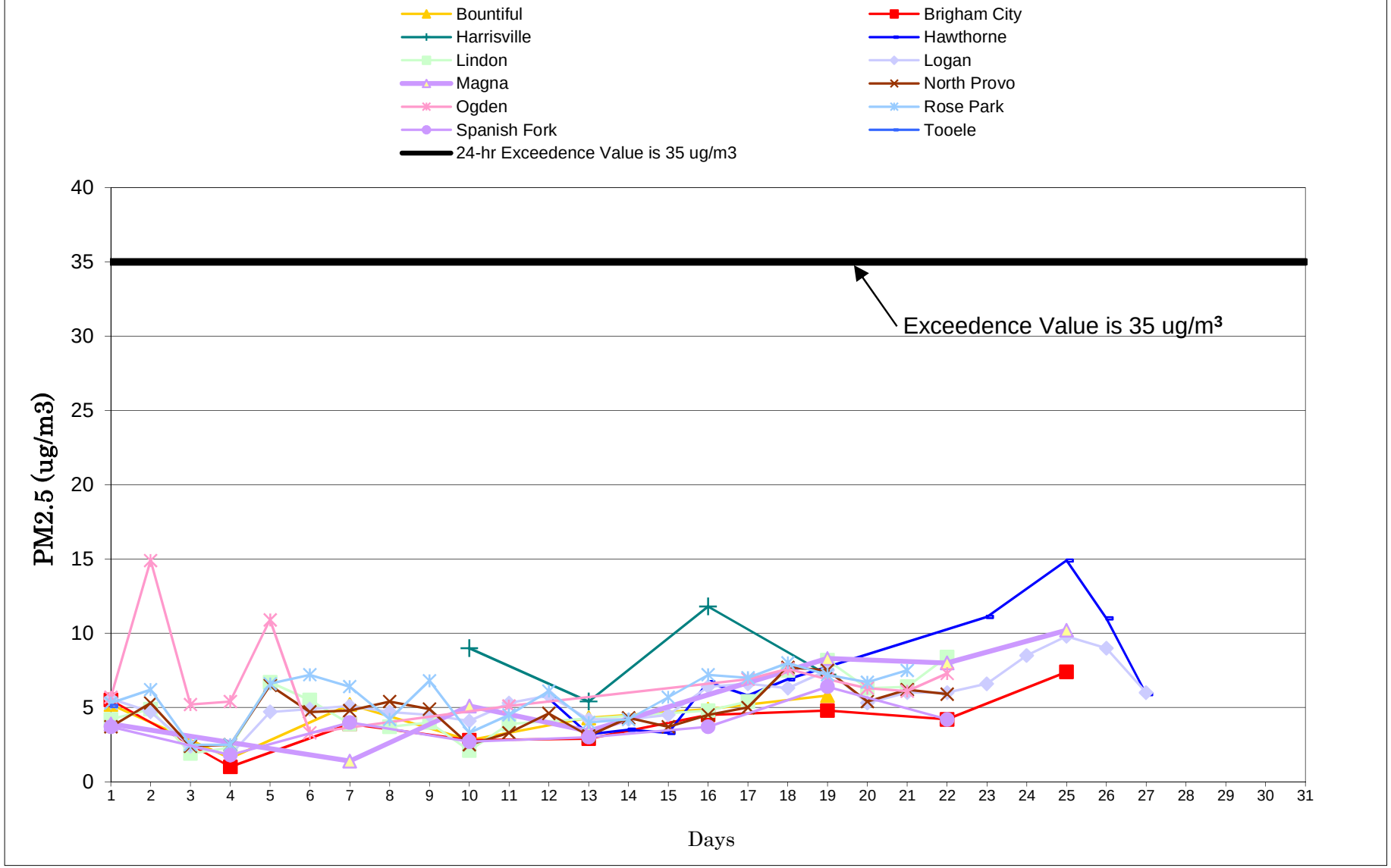
[1]Miscellaneous inspections include, e.g., surveillance, level I inspections, VOC inspections, complaints, on-site training, dust patrol, smoke patrol, open burning, etc.

Utah 24-Hr PM2.5 Data September 2013



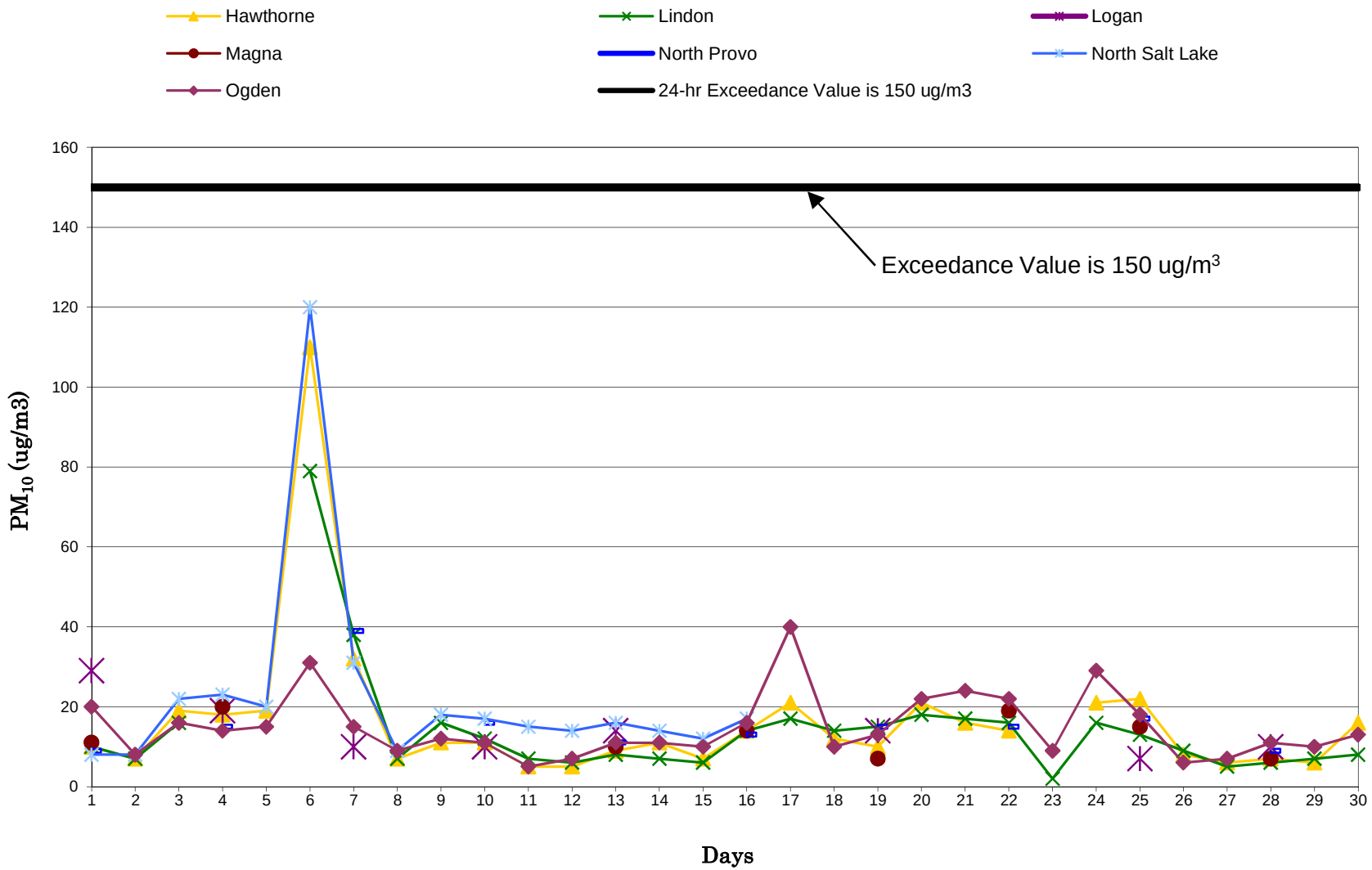
Utah Division of Air Quality

Utah 24-Hr PM2.5 Data October 2013



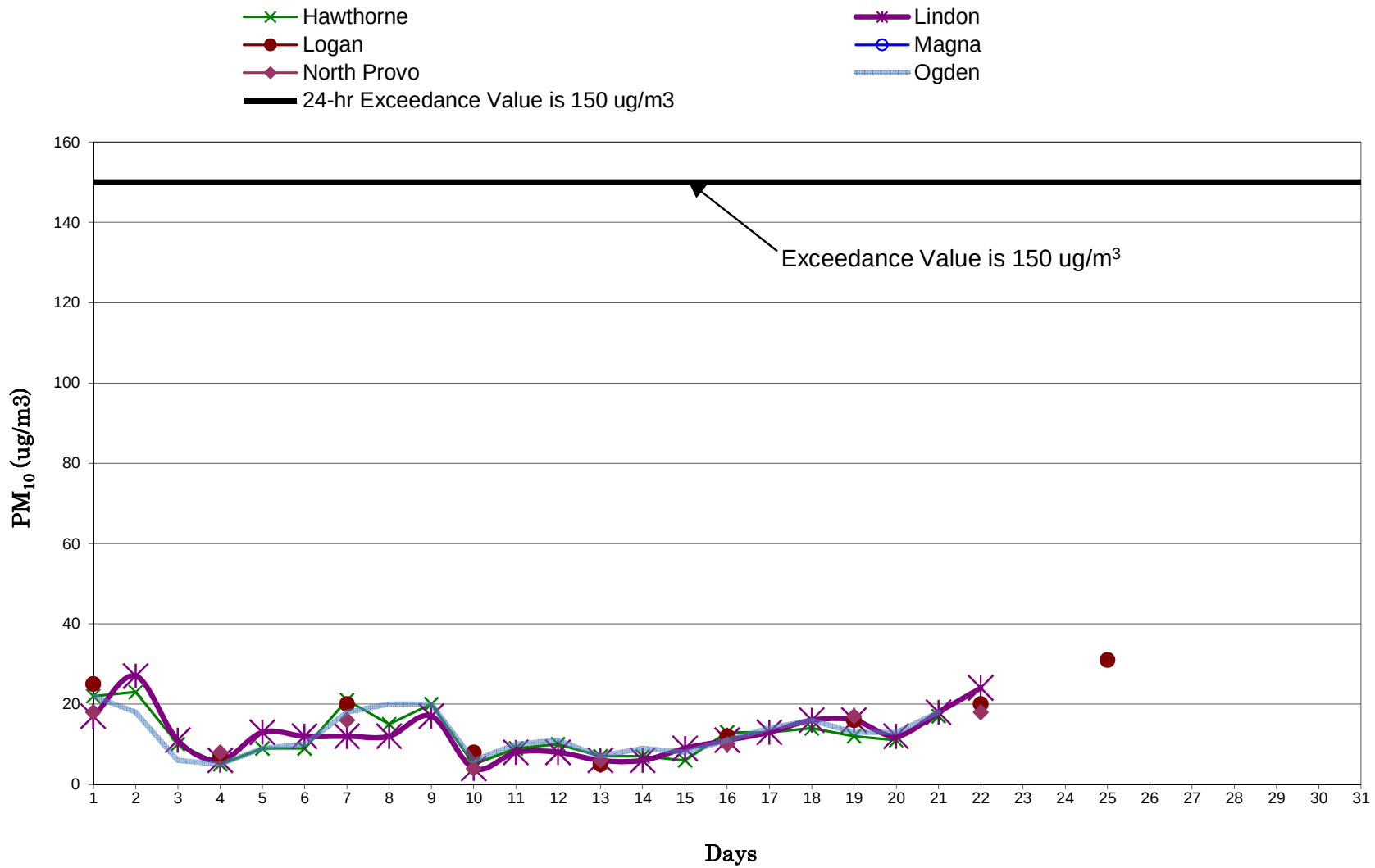
Utah Division of Air Quality

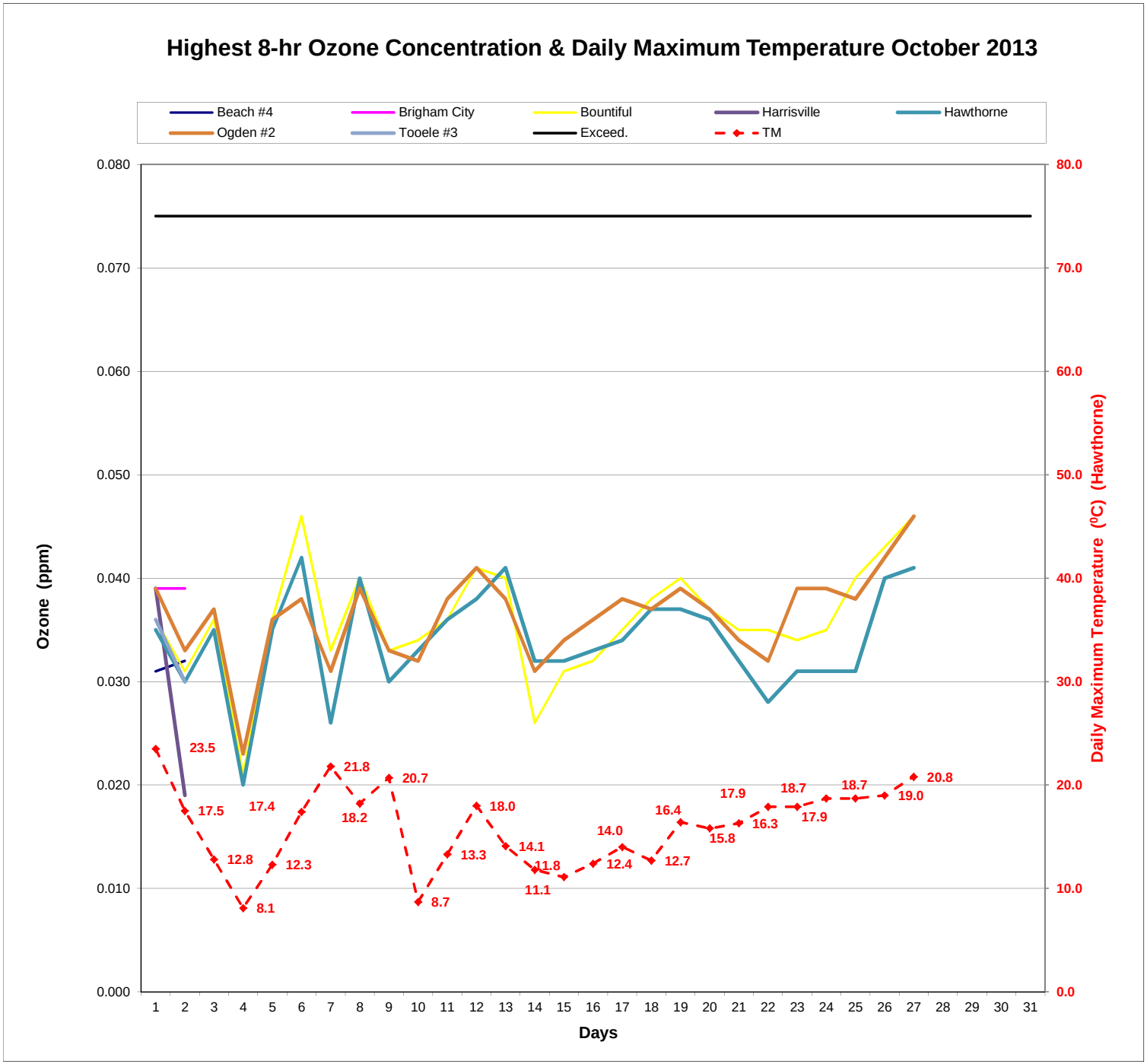
Utah 24-hr PM_{10} Data September 2013

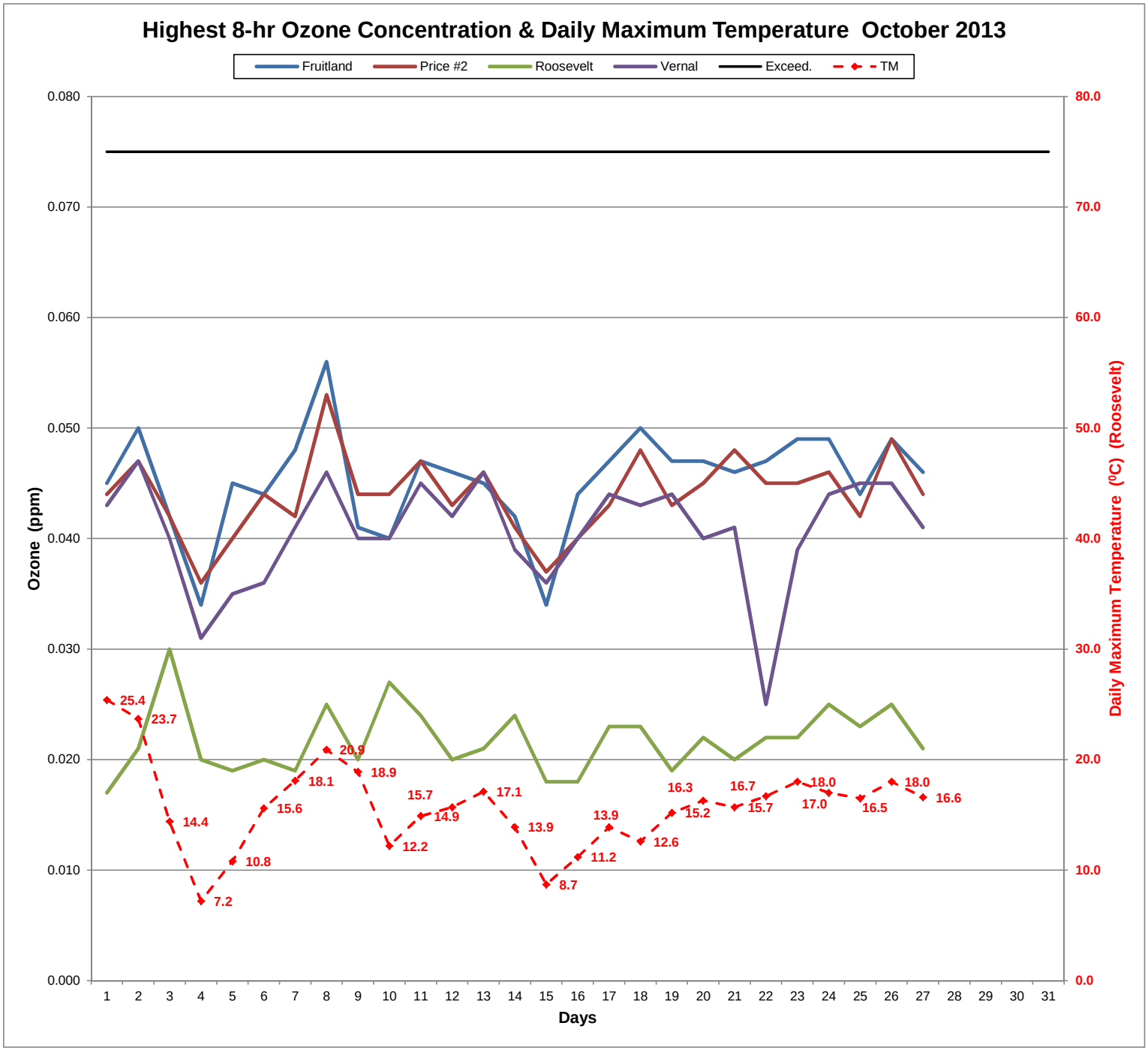


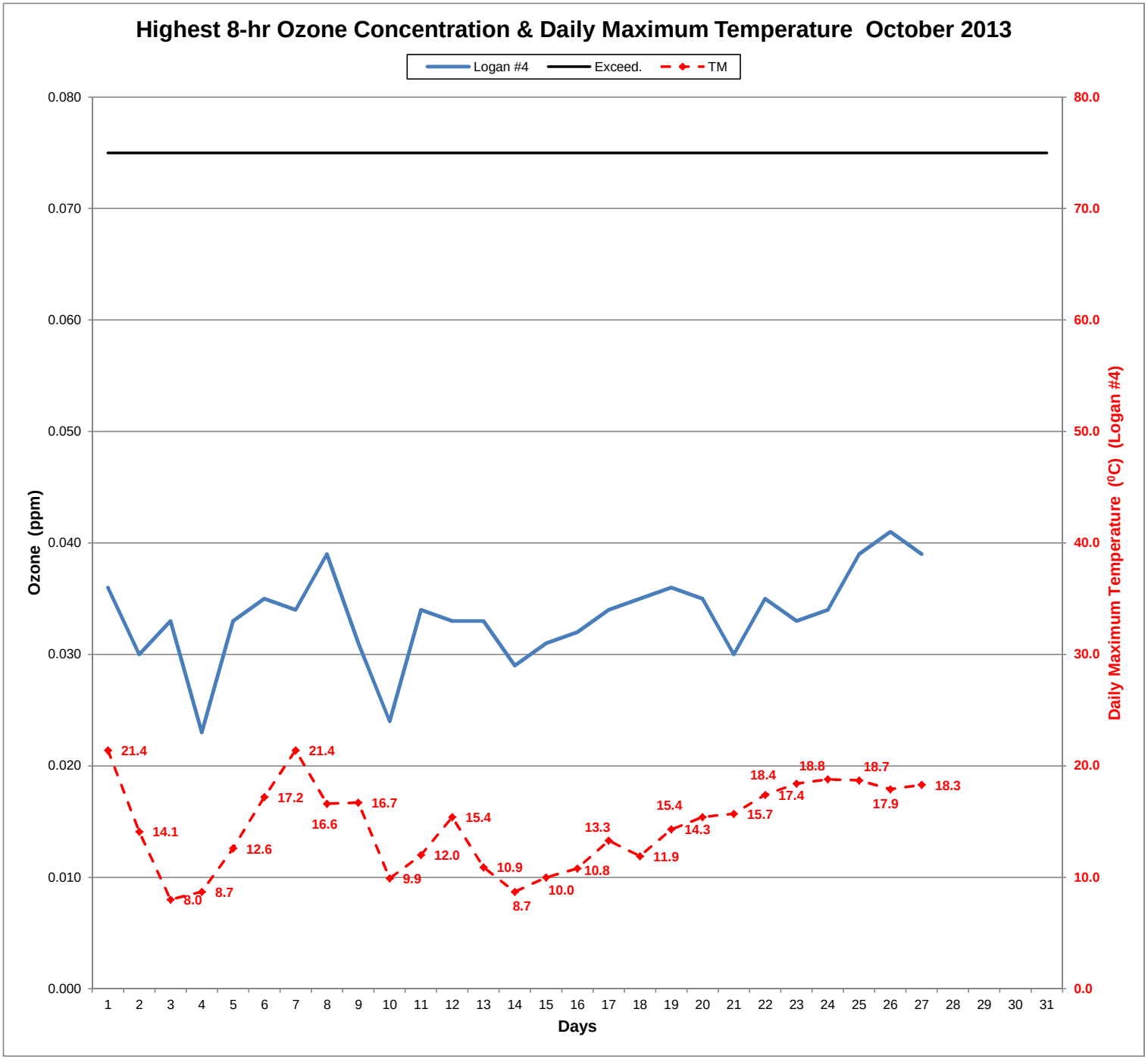
Utah Division of Air Quality

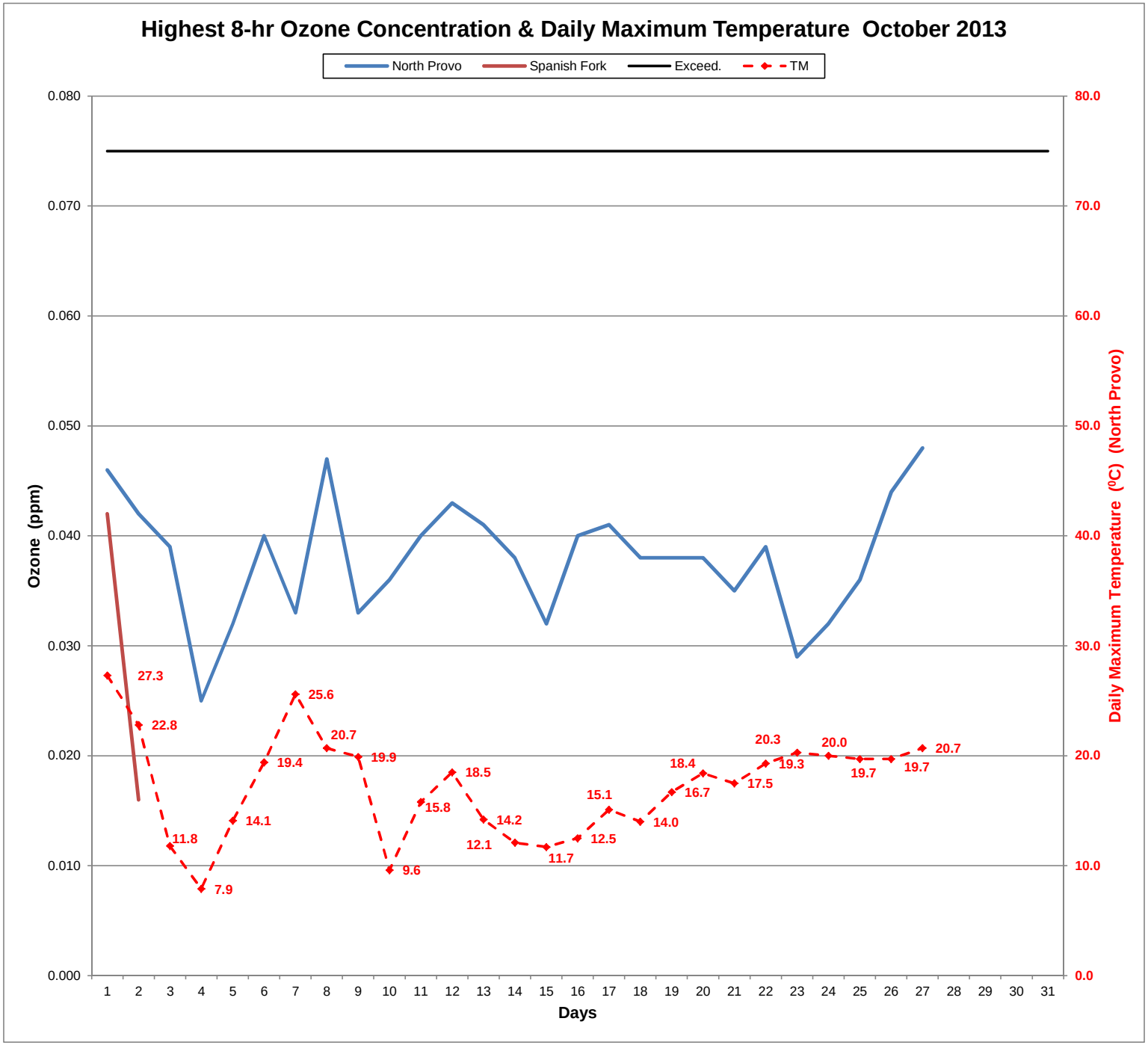
Utah 24-hr PM_{10} Data October 2013

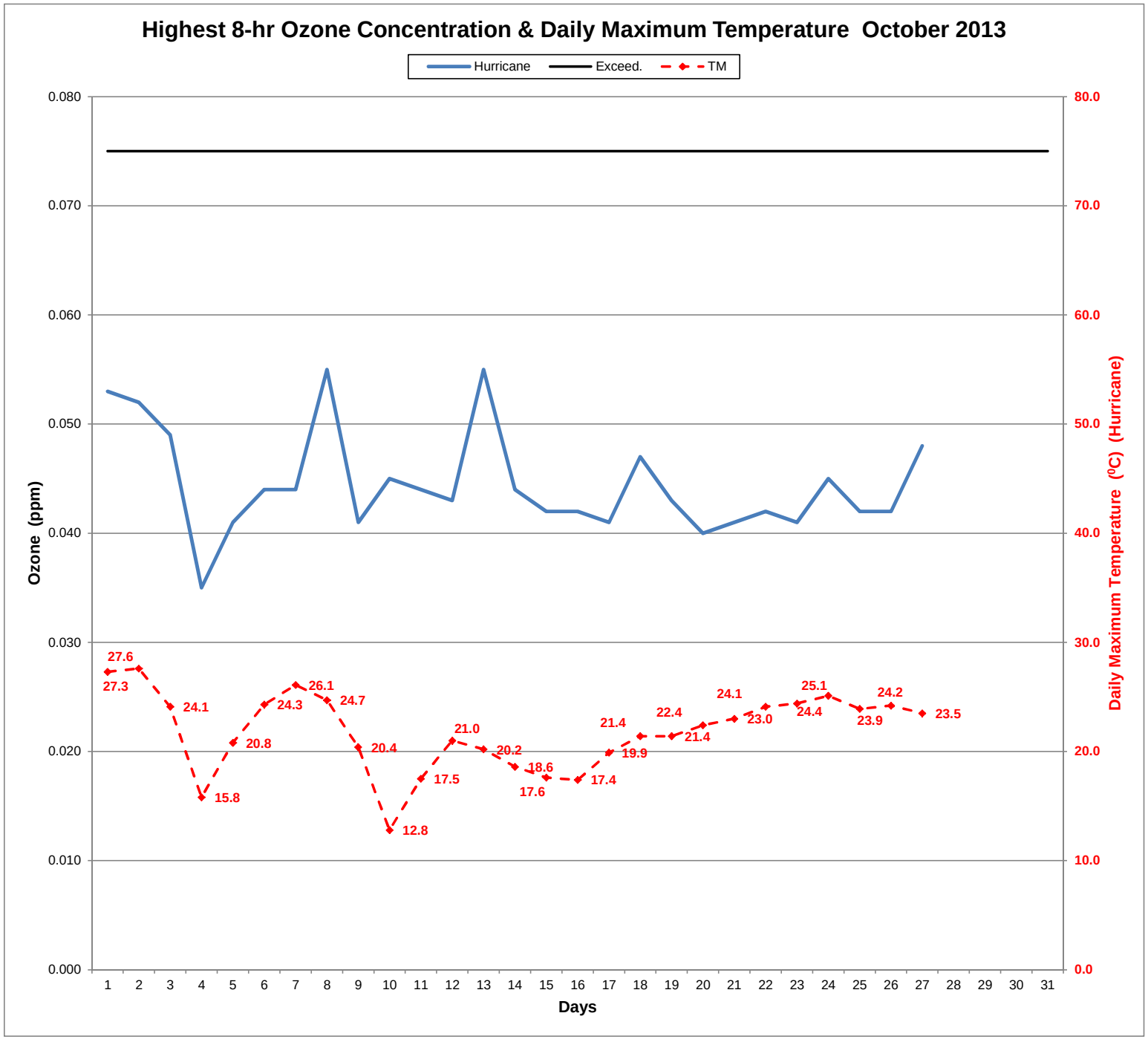



Highest 8-hr Ozone Concentration & Daily Maximum Temperature October 2013
Beach #4
Brigham City
Bountiful
Harrisville
Hawthorne
Ogden #2
Tooele #3
Exceed.
TM
Ozone (ppm)
Daily Maximum Temperature (°C) (Hawthorne)
Days
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
23.5
17.5
12.8
8.1
17.4
12.3
21.8
18.2
20.7
8.7
13.3
18.0
14.1
11.8
11.1
14.0
12.4
16.4
12.7
15.8
17.9
16.3
18.7
17.9
18.7
19.0
20.8


Highest 8-hr Ozone Concentration & Daily Maximum Temperature October 2013
Fruitland
Price #2
Roosevelt
Vernal
Exceed.
TM
Ozone (ppm)
Daily Maximum Temperature (°C) (Roosevelt)
Days
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
25.4
23.7
14.4
7.2
10.8
15.6
18.1
20.9
18.9
12.2
15.7
14.9
17.1
13.9
8.7
11.2
13.9
12.6
16.3
15.2
16.7
15.7
18.0
17.0
16.5
18.0
16.6


Highest 8-hr Ozone Concentration & Daily Maximum Temperature October 2013
Logan #4
Exceed.
TM
Ozone (ppm)
Daily Maximum Temperature (°C) (Logan #4)
Days
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
21.4
14.1
8.0
8.7
12.6
17.2
21.4
16.6
16.7
9.9
12.0
15.4
10.9
8.7
10.0
10.8
13.3
11.9
15.4
14.3
15.7
18.4
17.4
18.8
18.7
17.9
18.3


Highest 8-hr Ozone Concentration & Daily Maximum Temperature October 2013
North Provo
Spanish Fork
Exceed.
TM
Ozone (ppm)
Daily Maximum Temperature (°C) (North Provo)
Days
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
27.3
22.8
11.8
7.9
14.1
19.4
25.6
20.7
19.9
9.6
15.8
18.5
14.2
12.1
11.7
12.5
15.1
14.0
16.7
18.4
17.5
20.3
19.3
20.0
19.7
19.7
20.7


Highest 8-hr Ozone Concentration & Daily Maximum Temperature October 2013
Hurricane
Exceed.
TM
Ozone (ppm)
Daily Maximum Temperature (°C) (Hurricane)
Days
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
27.6
27.3
24.1
15.8
20.8
24.3
26.1
24.7
20.4
12.8
17.5
21.0
20.2
18.6
17.6
17.4
21.4
19.9
22.4
21.4
24.1
23.0
25.1
24.4
24.2
23.9
23.5