

UTAH STATE DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY
AIR QUALITY BOARD

REQUEST TO MAKE COMMENTS

NAME:	Susan Hardy
ORGANIZATION OR AFFILIATION:	MAG Mountainland Assoc. of Govts
GENERAL AREA OF COMMENT:	PM ₁₀ SIP
AMOUNT OF TIME REQUESTED:	5 minutes
WILL A WRITTEN COMMENT BE SUBMITTED?	No

UTAH STATE DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY
AIR QUALITY BOARD

REQUEST TO MAKE COMMENTS

NAME:	JASON GROENEWOLD
ORGANIZATION OR AFFILIATION:	PMR (Families Against Incinerators)
GENERAL AREA OF COMMENT:	YES / Approval of R307-220-4
AMOUNT OF TIME REQUESTED:	5-7 mins
WILL A WRITTEN COMMENT BE SUBMITTED?	No

**UTAH STATE
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY**

UTAH AIR QUALITY BOARD MEETING

September 5, 2001

PLEASE PRINT

NAME	AFFILIATION
JASON GROENELOLD	FAIR
MIKE PARKER	ATK/Thickel
SWAN HARTS	MAG
Matt R. Ffvin	Interplan Co. (MAG consultant)
MIKE STRONG	EGTG
Darrell Cook	MAG
Kathy Van Damm	Wasatch Clean Air Coalition
Lynn R Menlove	DAQ
Lydia Salmon	Kennecott Utah Copper
Kip Billings	WFRC
STEVE ALDER	Utah County



State of Utah

Utah Air Quality Board

Michael O. Leavitt
Governor

David B. George
Chair

John M. Veranth
Vice Chair

Richard W. Sprott
Executive Secretary

Karl F. Brooks
David B. George
James R. Horrocks
Dannie R. McConkie
Dianne R. Nielson
Richard R. Olson
Wayne M. Samuelson
JoAnn B. Seghini
Joseph D. Thompson
Jeffrey K. Utley

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000
(801) 536-4099 Fax
(801) 538-4144 T.D.D.

AIR QUALITY BOARD MEETING

FINAL AGENDA

September 5, 2001
1:30 P.M.

168 N. 1950 W. (Building #2) Room 101

- I. Call to Order
- II. Date of Next Meeting
- III. Approval of Minutes of the August 1, 2001, Board Meeting
- IV. **Final Adoption:** R307-220-4 and the State Plan for Small Municipal Waste Combustor Units, and R307-223, Emission Standards: Existing Small Municipal Waste Combustion Units
- V. **Board Action Item:** Addendum to Stipulation and Consent Order - Wasatch Energy Systems (WES)
- VI. **Final Adoption:** Return to 2.7% Oxygenated Gasoline in Utah County, R307-301-3, R307-110-12 and SIP Section IX.C.6.f(2)
- VII. Information Items
 - A. Environmental Performance Program
 - B. Compliance Activities for July 2001
 - C. HAPs Compliance Activities for July 2001
 - D. Monitoring Data for August 2001
- VIII. Miscellaneous

- MINUTES -

**UTAH AIR QUALITY BOARD MEETING
SEPTEMBER 5, 2001**

I. Call To Order

David B. George called the meeting to order at 1:30 p.m.

Board members present:

David B. George	Dannie R. McConkie	John M. Veranth
JoAnn B. Seghini	James R. Horrocks	Karl F. Brooks
Wayne M. Samuelson	Richard R. Olson	Dianne R. Nielson
Jeffrey K. Utley		

Executive Secretary: Cheryl Heying substituting for Rick Sprott.

II. Date of the Next Air Quality Board Meeting

The next meeting of the Board will be held Wednesday, October 3, 2001, at 1:30 p.m.

III. Approval of the Minutes of the August 1, 2001, Board Meeting

JoAnn Seghini made the motion to approve the minutes of the August meeting. The motion was seconded. The motion passed.

IV. Final Adoption: R307-220-4 and the State Plan for Small Municipal Waste Combustor Units, and R307-223, Emission Standards: Existing Small Municipal Waste Combustion Units

Presenter: Mike Beheshti, Environmental Engineer

A public hearing was held July 17. Comments were received and many questions were answered. One person submitted 30 comments and the Division provided responses for all 30 comments. No change is recommended as a result of the public comments; however, five changes have been proposed by the Division. Mr. Beheshti listed and explained those changes.

Public Comment by Jason Groenewold, director of Families Against Incinerator Risk (FAIR): To date, Wasatch Energy has not paid any fines for violations incurred over the past five years. The danger lies in setting up a situation where regulated sources become in conflict or confrontational with the Division of Air Quality and then become successful in having the Division back off on implementing fines and forcing clean up. It encourages other pollution sources to do the same. The hope is that the Board will advise the Division on how it should go about compliance with these types of facilities.

In responses to comments, DAQ staff commented that the State does not like to impose fines on government-run facilities because fines would come out of the taxpayers' pockets. WES is an entity that

has been making large sums of money. If fines are waived out of consideration for the public, it leaves the misimpression that somehow this facility is not costing the full amount to operate. For residents outside of Davis County who are subjected to the pollutants emitted from that smoke stack, there is no recourse or benefit gained by not implementing fines on that type of facility. The compliance policy needs to be discussed as the new equipment is installed at WES so that the same history is not repeated.

Regarding the notice of violation issued to WES by the EPA, Mr. Groenewold stated that EPA would not have taken that action if they felt that true enforcement was going to take place from the DAQ.

Mr. Groenewold requested that §60.1790, subsection (e), be deleted from the state plan. This requirement is not necessary. Mike Beheshti responded that there is a provision that the source can apply for a different monitoring method if the source can demonstrate and convince the executive secretary that the alternative method is equivalent technically in its application to the one that the EPA has proposed, and this would provide a broader range for complying with the specific requirements. If the source cannot convince the executive secretary that the two methods are equivalent, then the executive secretary would not be able to grant that permission.

Mr. Groenewold stated that if this section remains in the plan, the burden would be on the public to prove inappropriate waivers of requirements.

Dave Hansell of the Operating Permits Section commented that any request for alternative monitoring has to be approved by the Environmental Protection Agency. It's not just the executive secretary; EPA would also have to approve the request.

John Veranth, on the subject of low carbon feed rates, asked, "If they operated for 7-1/2 hours with no carbon feed and in the last half hour, they put in the full amount of carbon they needed to put in for eight hours, would that be good operating practice, or would that be achieving dioxin removal?" Mr. Beheshti responded that it would not be good operating practice. Mr. Veranth noted that he has seen this sort of practice take place in incinerators and feels it's something the staff and Board need to be aware of; that there is a potential for this kind of game playing.

Mr. Groenewold asked if tires were included in the definition of "Municipal solid waste or municipal-type solid waste." Mr. George asked staff to find the answer and report to the Board next month.

- **Motion:** JoAnn Seghini made the motion to adopt this state plan as proposed. Karl Brooks seconded the motion. The motion passed with abstentions from John Veranth and Dannie McConkie. Mr. McConkie declared a conflict of interest and abstained from voting as he is a member of the board of directors for Wasatch Energy Systems.

V. Addendum to Wasatch Energy Systems Stipulation and Consent Order

Presenter: Regg Olsen, Manager, Permitting Branch

Last September, DAQ issued an approval order to Wasatch Energy Systems (WES) in which the requirements of the stipulation and consent order were implemented. This order required WES to come

into compliance with new federal standards several months, if not years, early. As WES began to install the equipment necessary to meet the new federal standards, DAQ identified an inadvertent problem, which was that the new equipment would be unable to show compliance with some of the old parameters, but yet the new permit that would allow that would not be effective until October 2002. This was not the intent of the consent order.

DAQ has drafted an addendum to the March 2000 consent order that allows WES to perform the necessary start-up and shakedown testing with the new equipment without being bound by the operating parameters of the old permit that are no longer feasible. The emission limits are not changing, but in other respects, the new September 2000 permit will become effective with this addendum.

Staff recommends approval of this addendum.

- **Motion:** Jeff Utley made the motion to approve this addendum to the stipulation and consent order. Richard Olson seconded the motion. Dannie McConkie declared a conflict of interest and did not vote. The motion passed.

VI. Final Adoption: Return to 2.7% Oxygenated Gasoline in Utah County, R307-301-3, R307-110-12 and SIP Section IX.C.6.f(2)

Presenter: Ran Macdonald, Environmental Engineer

A public hearing was held in Provo on August 22, 2001, on the proposal to reduce the oxygenate content in fuel. Oral comments were in support of the proposal.

Staff recommends that both the CO SIP and the oxygenated fuel rule be approved as proposed.

- **Motion:** Richard Olson made the motion to adopt this proposal. Jeff Utley seconded the motion. The motion passed.

VII. Information Items

A. Environmental Performance Track

Renette Anderson of the Office of Planning and Public Affairs presented this item to the Board. Currently there are 13 states plus the national EPA who have this kind of program which recognizes and encourages environmental leadership. Participants in this program generally have a good compliance record and participate in pollution prevention activities. Incentives to participate include streamlined permitting, consolidated permits, and expedited approval of innovative technologies.

The Department of Environmental Quality convened such a group that met for the first time in August. The next meeting will be held September 19.

B. Compliance Activities for July 2001

No questions or comments.

C. HAPs Compliance Activities for July 2001

John Veranth asked about school inspections. Bryce Bird commented that things are going well in that area. The Asbestos Advisory Committee still meets to address issues of concern.

D. Monitoring Data for August 2001

Bob Dalley reviewed the monitoring data commenting that there have not been any ozone exceedances since August 17.

VIII. Miscellaneous

Susan Hardy, air quality program manager of the Mountainland Association of Governments (MAG), addressed the Board. MAG is the metropolitan planning organization for Utah County. Ms. Hardy expressed appreciation to DAQ for making available the necessary resources to assist with the fast track PM10 maintenance plan. MAG is responsible for the long-range transportation plan for Utah County. Currently, the long-range transportation plan does not conform to regulations stipulated by the Clean Air Act. Conformity requires that a long-range transportation plan comply with the state implementation plan or the Clean Air Act requirements for the length of the plan (30 years).

The meeting adjourned at 2:25 p.m.



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor

Dianne R. Nielson, Ph.D.
Executive Director

Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

MEMORANDUM

TO: Air Quality Board DAQ-076-01

THROUGH: Richard W. Sprott, Executive Secretary

FROM: Mike Beheshti

DATE: August 27, 2001

SUBJECT: Final Adoption: R307-220-4 and the State Plan for Small Municipal Waste Combustor Units, and R307-223, Emission Standards: Existing Small Municipal Waste Combustion Units

On June 6, 2001, the Board proposed for public comment the plan and rules governing operation of existing small municipal waste combustion units. The plan and rules were written to implement 40 CFR 60, Subpart BBBB, final rules, promulgated on December 6, 2000.

A public hearing was held on July 17, 2001. Comments were received and many questions were asked and answered. One person submitted written comments. A summary of the comments and responses is attached.

Staff Recommendations: No change is recommended in the rules as a result of the public comments. However, the following five changes are proposed in the plan.

1. Page 1, lines 12-14: Specify precisely the combustion units covered by the federal rules.
2. Page 2, line 8: Delete the term *Administrator* from the list of definitions, as the term is not used in the plan. It has been replaced by *Executive Secretary*.
3. Page 11, line 9: Revise to ensure that facility employees receive training within six months of the unit's start-up date and before the activity of the employees affect the operation of the unit.

4. Page 17, lines 9-10: Revise to ensure that subsection 60-1705 ["What emissions limits must I meet? By when?"] is consistent with other references to compliance dates in the plan.
5. Page 39, lines 11-13: As the plan is written to be inclusive of all existing plants, the compliance date for Wasatch Energy Systems is changed to make it consistent with the Stipulation and Consent Order of March 2000, and with current approval order, DAQE-560-2000, which specified October 6, 2002, as the earliest compliance date. This change will also provide agreement with Section III, Compliance, in the plan.

Summary of Comments and Responses
SMALL MUNICIPAL WASTE COMBUSTORS PLAN AND RULE

AVAILABILITY OF INFORMATION

Comment. I appreciate that DEQ sent out email with copies of the rule and plan as soon as they were available. However, I couldn't read them and had to ask for a paper copy. DEQ should have had a copy available electronically that could be read easily. (Mark Graham, introduction)

Response: Copies were distributed as soon as they were available to everyone on DEQ's list of citizens and groups interested in municipal incinerator issues. In addition, the normal public notice schedule was followed, and we assisted anyone who asked for further help.

MALFUNCTIONS, UPSETS, STARTUPS AND SHUTDOWNS

Comment The definition of *startup* should be revised to specify that it does not include *any warmup period when only fossil fuel is being combusted*. The incinerator is always burning fossil fuel any time it burns plastics which are made from petroleum, a fossil fuel. With this definition, the incinerator is constantly in a period of startup. (Mark Graham, 15-11)

Response: The definitions states that startup *does not include any period during which the municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no municipal waste*. Plastics are not a fossil fuel. Any plastics burned by the incinerator would be part of the municipal waste stream specifically exempted in the last phrase of the definition.

Comment Page 12, Plant-Specific Operating Manual, Subsection 60.1665(e). You have failed to define *shutdown* and *malfunction*, thus leaving DAQ open to WES requests to excuse every violation as being caused by a malfunction. Your unavoidable breakdown rule is wide open to abuse. Who defines if a situation is technically a malfunction? (Mark Graham, 11) Please define *malfunction* without leaving a loophole. In the past, WES reports have shown the same events classified as both acceptable and unacceptable at different times. (Mark Graham, 13)

Response: As noted on page 2, line 4, additional definitions are found in 40 CFR 60.2, incorporated into Utah rules in R307-210: *Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions*. As is true for any other source subject to 40 CFR Part 60, the executive secretary decides whether an event fits this definition.

Comment Subsection 60.1665(g). What is the WES employee to do during periodic upset or off-spec conditions? They should turn off the incinerator until the upset can be repaired. Is there a limit on how long such a period can last without reporting to DAQ? (Mark Graham, 11) Regarding 60.1695, if WES has a startup, shutdown or malfunction that lasts longer than 3 hours, is that a violation? How will DAQ know about it? Is WES required to report to DAQ? (Mark Graham, 13) Regarding 60.1710, sources should be required to report at least quarterly, if not the next day, all upsets, malfunctions, startups and shutdowns. (Mark Graham, 15-1)

Response: A startup, shutdown or malfunction lasting longer than 3 hours would be a violation. WES is subject to R307-107, which requires reporting a breakdown of 2 hours or more to DAQ *within 3 hours after the beginning of the breakdown if possible, but in no case longer than 18 hours after the start of the breakdown.*

Sources subject to this Plan also are subject to R307-170, which governs operation of continuous emissions monitors and reporting their results. R307-170-5(2) states, *All sources shall monitor and record all emissions data during all phases of source operations, including start-ups, shutdowns, and process malfunctions.* In addition, R307-170-9 requires that sources report all periods of excess emissions, as well as other information enabling DAQ to know when the source is operating abnormally, and R307-170-9(9) requires a signed statement under penalties of law that the information in the report is truthful and accurate and is a complete record of all monitoring events that occurred during the monitoring period.

Comment There should be a limit on the number of upsets, malfunctions, startups, shutdowns in a given year or quarter. There should be stipulated fines for having more than the allowable number. This Plan doesn't even limit the frequency of upsets or require the source to stop feeding waste into the incinerator during an upset. Nobody has any idea what is being emitted during an upset. The source should be required to estimate actual emissions during each upset, malfunction, startup and shutdown period, and should report these estimates in writing to DAQ within 10 days. What is to prevent the source from allowing the upset to continue up to 3 hours when it could be controlled sooner? (Mark Graham, 15-2, 3, 4, 5)

Response: Refer to the definition of *malfunction* in an earlier response. Upsets or malfunctions that indicate that the source has a pattern or practice of poor maintenance, operator error, or other avoidable practices would prevent the excess emissions from being exempt from enforcement action. As noted above, the continuous emission monitor (CEM) will record information about emissions including startups, shutdowns and malfunctions. The CEM measures sulfur dioxide, nitrogen oxides, and carbon monoxide. Thus, we will know how much of those substances are being emitted at any time. In addition, the readings for those pollutants give an indication of whether the combustion process is complete, and thus, the level of dioxins and furans that are being emitted. The only way to measure dioxins and furans directly is through a stack test, however.

Comment What happens if the air pollution control system ceases to function, or function

properly, during combustion at or near maximum capacity? It should be required to shut down until the control system can be repaired. If not, it should be considered a violation and there should be a fine. (Mark Graham, 15-7)

Response: The three continuous emission monitors [CEM] for oxides of nitrogen and sulfur and carbon will show if the facility's operations have been abnormal. In addition, the opacity CEM, too, will show a violation of the permit limits, should that occur.

HOW WILL WE KNOW THAT WES IS OPERATING WITHIN ITS LIMITS?

Comment Regarding the definition of *maximum demonstrated load of a MWC unit*, how will DAQ determine compliance with the limitations on load? Will you do spot checks, unannounced visits, or other methods? (Mark Graham, 4) Subsection 60.1690(a) requires that the combustion unit not be operated at loads greater than 110 percent of the maximum demonstrated load. DAQ has never kept track of this. (Mark Graham, 12)

Response: Waste feed rate is monitored and measured automatically. WES is required to report any deviation from the specified feed rate limit.

Comment In 60.1690(c), add the words "which demonstrated compliance with the dioxin/furan emission limit in this plan." Otherwise, WES could use a failed stack test to determine the activated carbon level they must use. (Mark Graham, 12)

Response: No change is needed. The reason for setting a required level of activated carbon is to ensure that enough carbon is present to absorb any emissions greater than the emissions limit for each substance. Basing the activated carbon level on a stack test in which emissions were greater than the emissions limit would not satisfy that purpose. DAQ staff are present for all stack tests and will not agree to an activated carbon level determined by a failed stack test.

COMPLIANCE DATE

Comment. You failed to specify the compliance date on page 1 under applicability. There are multiple compliance dates in the Consent Order and the Approval Order. Both the Consent Order and the Approval Order said that if the final EPA regulation was different from the proposed EPA regulation, as it is in setting tighter emission limits on dioxin, then the State would make a new schedule for compliance. (Mark Graham, 1) Section III, Compliance Schedule. This date does not match the date in the Appendix. (Mark Graham, 9, 19)

Response: The compliance date is found in Section III, Compliance Dates, just as emission limits, testing methods, operator training and all other components of the Plan are set forth in individual sections. The introduction includes background and history. Final compliance is to be achieved by October 6, 2002, as was specified in the Stipulation and Consent Order.

The dates in Appendix A applying to WES will be changed to match the dates in the text of Section III. That is, the compliance date for completion of construction is January 6, 2002, and the date for final compliance is October 6, 2002.

Comment A representative of WES should be required to certify in writing under penalty of perjury, whether and when each interim deadline is met. (Mark Graham, 14)

Response: The approval order incorporates by reference R307-223. It is a legal document requiring WES to comply with its requirements. No other document is necessary.

Comment Regarding 1705(b), the compliance date conflicts with that in Section III and in the Approval Order and Consent Order. (Mark Graham, 14)

Response: The Plan is written for the general case of any affected MSW unit. WES's compliance date is governed by the Stipulation and Consent Order, October 6, 2002.

Comment Regarding 60.1785, if the stack test is not conducted until 180 days after the final compliance date, how will you know they are in compliance on the final compliance date? This is a violation of the consent order. (Mark Graham, 17)

Response: The Plan is written for the general case of any affected MSW unit. WES is governed by the Stipulation and Consent Order, paragraph 8.E, requiring that WES *conduct performance testing during a 180 day time period beginning February 1, 2002, or nineteen months after the date the Approval Order is issued, whichever is later.* The Approval Order was issued on September 6, 2000; performance testing will be conducted beginning April 1, 2002.

MISCELLANEOUS

Comment: Please adopt this Plan, and then enforce it vigorously. (Tom Uhland, Keith Cisney, Joseph Salas)

Response: Noted.

Comment: Be very conservative in setting the emission limits. I don't want to find out 20 years from now that these emissions are bad—that's too late. Enforcement is especially important. (Joseph Salas)

Response: Noted.

Comment In the definitions, *Administrator* means the Administrator of EPA, not the Executive Secretary. The term is not used in the Plan and the definition should be deleted. (Mark Graham,

2)

Response: The term is not used in the Plan, and will be deleted.

Comment Regarding the definition for *four-hour block average*, I don't believe that WES conducts their stack tests using the starting and stopping times specified in the rule. It will be a violation if they begin their testing at a time not specified here. (Mark Graham, 3)

Response: The four-hour time blocks are specified in the federal rule, and therefore are included in this Plan. In the future, stack tests will be conducted as specified in this Plan.

Comment Regarding the definition of *Municipal solid waste*, WES burns dead animals such as road kill. Where does the definition allow this? (Mark Graham, 5-1)

Response: Municipal solid waste is defined as *household, commercial/retail, or institutional waste*. Road kill does not appear to be excluded in this definition, and it would hardly be different from some of the components of household waste.

Comment WES burns a lot of waste from Hill Air Force Base, including probably a lot of hazardous waste. According to this definition, this is not allowed. How do we know whether WES is burning hazardous waste from Hill Air Force Base? Are we just supposed to trust them? Does DAQ do inspections, random spot checks, to determine this? Your definition should explicitly state that municipal solid waste does not include hazardous waste. (Mark Graham, 5-2)

Response: WES burns non-hazardous waste from Hill Air Force Base. Hill Air Force Base is subject to very strict federal and state rules in disposing of its hazardous waste, and any failure to follow them would be a violation for Hill Air Force Base as well as WES. DAQ does do unannounced inspections at WES.

Comment WES burns medical waste. Please inform them specifically that they are no longer allowed to do so. WES should be required to periodically submit a written certification that they have not burned either hazardous waste or medical waste in the quarter or other time period just ended. (Mark Graham, 5-5)

Response: If you have proof of the allegation that WES is burning medical waste, please bring it to DAQ. Burning of medical waste is governed by the provisions of R307-222 and the Plan for Hospital, Medical, Infectious Waste Incinerators, adopted by the Air Quality Board on November 12, 1998. WES is not allowed to burn medical waste. However, the definition of *municipal solid waste* includes non-medical hospital waste, and thus MSW incinerators such as WES may burn non-medical waste from hospitals.

Comment The definition of *yard waste* should explicitly mention leaves, or else leaves should

be explicitly excluded. (Mark Graham, 7)

Response: The definition of *yard waste* neither includes nor excludes leaves. However, there is nothing in the definition of *municipal solid waste* that excludes leaves, and therefore, leaves could be burned at the municipal waste incinerator.

Comment Page 9, line 5-6: I thought the Clean Air Act gives EPA 6 months to review and approve or reject state plans. That's what I was told in 1999 by Mark Stevenson at EPA. (Mark Graham, #8)

Response: 40 CFR 60. 27(b) specifies, *After receipt of a plan or plan revision, the Administrator will propose the plan or revision for approval or disapproval. The Administrator will, within four months after the date required for submission of a plan or plan revision, approve or disapprove such a plan or revision to each portion thereof.*

Comment WES employees should be required to keep their training and certification current by taking additional training courses once a year or more. (Mark Graham, #10)

Response: Requiring additional training would be more stringent than the federal rule, which is not allowed under Utah Code 19-2-106, unless the Board *makes a written finding after public comment and hearing and based on the evidence on the record, that corresponding federal regulations are not adequate to protect public health and the environment of the state.* Anyone who has such evidence should bring it to DAQ.

Comment Subsection 60.1665. Does the Plant-Specific Operating Manual apply to stack test procedures? Stack tests are to be conducted during representative conditions or normal operating procedures. (Mark Graham, 11)

Response: Table 8 of the State Plan specifies all the required test methods. Stack tests may be conducted under a set of more severe operational conditions, but at no time less severe. Test conditions are governed by 40 CFR 60, Subpart A [The General Provisions] and R307-165.

Comment Regarding 60.1750(c), why should the source be required to collect data only for 90% of the operating days and only 75% of the operating hours? (Mark Graham, 16)

Response: The intent of this Plan is to adopt the federal requirements, and this is the federal requirement.

Comment Regarding the definition of *total mass of dioxin/furan*, using this definition precludes allowing other stack test methods. (Mark Graham, 6)

Response: Yes. The method specified in the state plan [Method 23] must be used for WES.

Any source that desires to use another test method, as allowed under Subsection 60.1790(e) in the Plan, would have to prove to the executive secretary that the alternative is equivalent to Method 23.

Comment. Regarding 60.1790(e), the federal rule does not allow using other test methods unless the Administrator of EPA approves them. You have substituted *Executive Secretary* in 60.1790(e), and that changes the meaning. EPA has had an open public process for developing Method 23, and the State does not have the expertise to develop a different method. WES has argued with DAQ over Method 23 for years. Now you have the authority from the federal government to put the whole issue to rest once and for all. Don't do it. If you decide to keep this provision, please be sure to have an open, scientific process with full public notice and comment and rely on the professional advice of DAQ's technically trained experts so that the public and the Board would have the opportunity to hear it. (Mark Graham, 18) Test methods are specified in Appendix A, Table 8. You can't approve a different test method without changing the Table, making this Plan less stringent than the federal requirement and therefore unapprovable by EPA. (Mark Graham, 20) In the past 3 years, WES has made various claims about Method 23 and the reasons they could withhold data from stack tests. Please comment on how this Plan relates to these arguments. (Mark Graham, 21)

Response: The federal rule, as presented in Appendix A, Table 8 in the Plan, requires use of Method 23 to measure dioxins/furans, with a minimum sampling time of 4 hours per test run and while the incinerator is operating at full load. DAQ will enforce the Plan and the rule. Neither the Administrator of EPA nor the Executive Secretary of the Air Quality Board seeks public comment for a change in test method for a single test at a single facility; such requests are evaluated individually.

Comment On any decision regarding WES, I hope the Air Quality Board will make its decision based on science, not politics. DAQ employs a number of qualified engineers and scientists, yet the Board has never asked any of them to give oral testimony regarding any WES issue in the last 4 years. (Mark Graham, #22)

Response: The Air Quality Board's membership is specified in Utah Code 19-2-103; a variety of policy and technical experts are included. DAQ staff analysis comes to the Air Quality Board in memos and in Notices of Violation. Those are always available to the public, as well as the Board.

Comment. Utah should make all decisions on air quality and permits in full public view, giving ample opportunity for public review, input and comment. You should not have your minds made up before public comment starts. The Utah Open and Public Meetings Act says that all government agencies exist to serve the public interest and their actions should be made openly. (Mark Graham, #23)

Response: Internal analysis and review of applications and permits is necessary before they

go out for public comment, and this review is not subject to the Open and Public Meetings Act. The public comment period on permits is held after the DAQ staff have determined that the application meets all federal and state requirements. The purpose of the comment period is to identify any additional information indicating that the application does not meet all applicable requirements. If the applicant meets the requirements, DAQ has no authority to deny the permit. Federal and State laws are adopted by the Congress and the Legislature to serve the public interest, and no staff member has the right to ignore or circumvent them.

Comment. Decisions such as signing the Stipulation and Consent Order in March 2000, should not be made behind the backs of the public and the Board, and without holding a public comment period and public hearing. It was very favorable to the source; once again, they did not get fined. (Mark Graham, # 24)

Response: The Stipulation and Consent Order was entered into by WES and the Executive Secretary as the settlement of several notices of violation. The executive secretary has the authority under Utah Code 19-2-104(3)(b) to settle matters initiated to compel compliance with the Air Conservation Act. Such actions are not subject to the Open and Public Meetings Act.

The Stipulation and Consent Order set a fine of \$38,000. Any fines on WES ultimately are paid by the taxpayers of the cities that are members of Wasatch Energy Systems, and it is better to divert the fines toward early cleanup, as happened in this case.

Comment. What is the significance of the figures in the emissions inventory? A stack test? I do not believe they have any stack tests that would support these estimates. My calculation indicates that, if they operated within the limits of their Approval Order, which they don't, their annual total would be 0.652 pounds per year of dioxins for both units. Please check these figures! (Mark Graham, # 25)

Response: R307-155 requires that sources submit information as to the rate and period of emissions and other information *determined necessary by the executive secretary for the issuance of permits, verification of compliance, and the determination of the effectiveness of control technology.* Sources report their hazardous air pollutant emissions based on stack test data. This does not tell us any source's emissions at every moment of operation, but it is a good indicator. Data are reviewed as part of the inventory verification process.

Please review you calculations. The correct stack gas flow rate is 20,266.7 dscf/minute, not 30,000 dscf/min. Thus, the total annual emissions would be 0.44 pounds, and that limit is included in their approval order.

Comment. The State of Utah needs to do a better job of noticing and citing irregularities and violations in this source's stack tests. For instance, EPA's Notice of Violation regarding the WES stack test in March 2001 cited a number of violations and irregularities, while the DAQ notice of

Violation for the same stack test cited only the violation of the dioxin emission limits. Stack tests are to be conducted using “normal operating conditions, “ and it is important to notice the deviations from normal operating conditions that decrease the stack emissions. (Mark Graham, #27)

Response: Stack tests are to be conducted using “normal operating conditions.” DAQ inspectors stop the test if normal procedures are not being followed. The test in March 2001 was an EPA test, and DAQ had no authority to stop the test in progress. DAQ issued a Notice of Violation for violation of the dioxin emission limits.

EPA's Notice of Violation discusses operational irregularities but cites only the violation of the emission limit.

(2) to provide a program that will motivate students to take better advantage of existing educational opportunities;

(3) to increase graduation rates of underrepresented students from high school;

(4) to strengthen the self-image of minority and female students relating to their success in mathematics and science courses, and to enable them to become successful role models for other students;

(5) to provide students the opportunity to relate and associate with successful role models; and

(6) to coordinate the efforts of public schools, colleges and universities, the USOE, industries, professional and community groups, and others in the development and maintenance of academic support programs to increase the participation of minority and female students in the fields of mathematics and science.

C. Courses shall include secondary courses that place target students on a college preparation track for post high school opportunities in mathematics and science.

D. Examples of MESA activities include:

(1) regularly scheduled after-school meetings with advisors to hear guest presenters;

(2) tutoring sessions, including study aids;

(3) field trips;

(4) hands-on activities designed to introduce students to career possibilities, curriculum options or additional courses of study;

(5) career opportunities;

(6) community service designed to address school interest and attendance issues as well as to introduce minority and female students to math, science, engineering-related businesses/activities and opportunities for high school and the future; and

(7) internships or work experiences in identified areas which may be encouraged by student stipends or academic credit or both.

E. A MESA plan shall include an assessment or evaluation component which:

(1) may be funded and conducted by an outside evaluator.

(2) may be conducted internally.

(3) may request assistance from the USOE.

(4) shall include:

(a) an accounting for funds spent consistent with objectives identified in the plan;

(b) a program narrative; and

(c) specific numbers or examples of increased participation or success in math, science, engineering courses/activities by minority and female students.

R277-717-4. Budget.

A. Budget items shall be tied to objectives.

B. The budget may include payments to compensate schools for school fees directly related to successful participation by minority or female students in identified MESA courses or activities.

C. Districts or schools are encouraged to consider additional course alternatives for identified students including:

(1) ATC classes;

(2) community school classes;

(3) concurrent enrollment;

(4) advanced placement courses.

R277-717-5. Plan Applications.

A. Plan applications shall be submitted annually by school districts.

B. Plan applications shall be submitted to the USOE on forms provided by the USOE and consistent with USOE timelines.

C. State funding may require matching funding from local or federal sources. Applications may require identification of matching funds.

D. Districts shall submit applications consistent with this rule and compete for existing funds. Final funding decisions shall be made by the MESA Public Education Committee.

R277-717-6. Miscellaneous.

A. Continued funding shall be determined by USOE review of program evaluations.

B. Continued funding shall consider the persistence and regularity of efforts in conjunction with increased numbers of successful students in identified courses and activities.

C. MESA courses and activities shall be open to interested participants of both genders and all ethnicities. Continued or increased funding shall be based on successful participation of identified minority and female students.

D. Development of a MESA plan or resulting programs are appropriate career ladder projects under R277-526. District career ladder funding could be counted as matching local funding.

KEY: minority education, mathematics, engineering, science 2001

**Art X Sec 3
53A-1-401(3)**

**Environmental Quality, Air Quality
R307-220-4
Section III, Small Municipal Waste
Combustion Units**

**NOTICE OF PROPOSED RULE
(Amendment)**

DAR FILE NO.: 23835

FILED: 06/11/2001, 13:45

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: Add a new Section, (R307-220-4, Section III, Small Municipal Waste Combustion Units) (see separate filing for R307-223). (DAR Note: The proposed new rule of R307-223 is found under DAR No. 23836 in this *Bulletin*.)

SUMMARY OF THE RULE OR CHANGE: The new section, R307-220-4, incorporates by reference the plan for state implementation of 40 CFR 60, Subpart BBBB published at 63 FR 76378 on December 6, 2000. Subpart BBBB requires

that states prepare and enforce plans to reduce emissions of dioxins, furans, lead, cadmium, mercury, particulate matter, oxides of nitrogen, and carbon monoxide from small municipal waste combustion units. Subpart BBBB sets requirements for operator training and certification, continuous emissions monitoring and reporting. The only known source in Utah subject to Subpart BBBB is Wasatch Energy Systems located in Layton. The plan requires compliance in general within one year after the effective date of EPA approval of the plan, (just in case any other source is identified in the future) but Wasatch Energy Systems is required to achieve compliance with the emission limits by October 6, 2002, as agreed in the Stipulation and Consent Agreement signed by Wasatch Energy Systems and the State of Utah on March 27, 2000.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 19-2-104(1)(a)
 FEDERAL REQUIREMENT FOR THIS RULE: 42 U.S.C. Part 60, Subpart BBBB (63 FR 76378)

THIS RULE OR CHANGE INCORPORATES BY REFERENCE THE FOLLOWING MATERIAL: Section III, Plan for Small Municipal Waste Combustion Units.

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: The Plan adds no additional costs to the state budget. The requirements of the Plan are included in the source's Operating Permit, and the costs of regulation are covered by the Operating Permit fee of \$31.22 per ton of emissions.

❖LOCAL GOVERNMENTS: The affected local governments are those municipalities within Davis County that use Wasatch Energy Systems (WES) for disposal of municipal waste. Because WES began implementation of the new federal requirements following signing of the Stipulation and Consent Order in March 2000, it is not likely that any increases in fees will result from adoption of the state Plan.

❖OTHER PERSONS: The only affected businesses are those supplying and installing the equipment needed to achieve the new emission standards, and they will benefit.

COMPLIANCE COSTS FOR AFFECTED PERSONS: EPA estimates that national amortized capital and operating costs to implement the rule will be approximately \$25 per ton of waste processed. WES, the only known source affected by this rule, is spending approximately \$7,500,000 in capital costs and expects increased operating and maintenance fees to be about \$2.50 per ton of waste processed, though precise costs will not be known until the new equipment is fully operational. Individual citizens in the municipalities in Davis County pay varying fees for collection and disposal of their garbage. Because WES began installation after signing the Stipulation and Consent Agreement in March 2000, costs to citizens are not expected to change as a result of this rule. The only affected businesses are those supplying and installing the equipment needed to achieve the new emissions standards, and they will benefit.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: The only businesses affected by this rule are the suppliers and installers of the

new equipment necessary to achieve the new emission standards, who will benefit. Dianne R. Nielson

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
 Air Quality
 150 North 1950 West
 PO Box 144820
 Salt Lake City, UT 84114-4820, or
 at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmillier@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 07/31/2001; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 07/17/2001, 6:30 p.m., Layton City Hall, 447 N. Wasatch Dr, Layton, UT.

THIS RULE MAY BECOME EFFECTIVE ON: 09/05/2001

AUTHORIZED BY: Cheryl Heying, Planning Branch Manager

**R307. Environmental Quality, Air Quality.
 R307-220. Emission Standards: Plan for Designated Facilities.
 R307-220-4. Section III, Small Municipal Waste Combustion Units.**

Section III, Small Municipal Waste Combustion Units, as most recently adopted by the Air Quality Board on September 5, 2001, pursuant to Section 19-2-104, is hereby incorporated by reference and made a part of these rules.

KEY: air pollution, landfills, environmental protection, incinerators*
 [November 25, 1998]2001 19-2-104



**Environmental Quality, Air Quality
 R307-223
 Emission Standards: Existing Small
 Municipal Waste Combustion Units**

NOTICE OF PROPOSED RULE

(New)

DAR FILE NO.: 23836

FILED: 06/11/2001, 13:45

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: To implement the state Plan for Small Municipal Waste

Combustion Units, incorporated in Section R307-220-4 (see separate filing for Section R307-220-4).

(DAR Note: The proposed amendment for R307-220-4 is under DAR No. 23835 in this *Bulletin*.)

SUMMARY OF THE RULE OR CHANGE: The rule incorporates by reference the federal model rule in 40 CFR Part 60, Subpart BBBB, published at 63 FR 76378 on December 6, 2000. Changes are made to bring the federal rule into alignment with state terms, and to indicate that the State of Utah does not intend to operate a training course for personnel operating small municipal waste combustion units. The compliance dates are fixed in the state Plan incorporated by reference in Section R307-220-4. The only known source in Utah subject to this rule is Wasatch Energy Systems in Davis County; its compliance date is October 6, 2002.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 19-2-104(1)(a)
FEDERAL REQUIREMENT FOR THIS RULE: 42 U.S.C. Part 60, Subpart BBBB (63 FR 76378)

ANTICIPATED COST OR SAVINGS TO:

❖**THE STATE BUDGET:** This rule adds no additional costs to the state budget. The requirements of the rule are included in the source's Operating Permit, and the costs of regulation are covered by the Operating Permit fee of \$31.22 per ton of emissions.

❖**LOCAL GOVERNMENTS:** The affected local governments are those municipalities within Davis County that use Wasatch Energy Systems (WES) for disposal of municipal waste. Because WES began implementation of the new federal requirements following signing of the Stipulation and Consent Order in March 2000, it is not likely that any increases in fees will result from adoption of this rule.

❖**OTHER PERSONS:** The only affected businesses are those supplying and installing the equipment needed to achieve the new emission standards, and they will benefit.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Environmental Protection Agency (EPA) estimates that national amortized capital and operating costs to implement the rule will be approximately \$25 per ton of waste processed. WES, the only known source affected by this rule, is spending approximately \$7,500,000 in capital costs and expects increased operating and maintenance fees to be about \$2.50 per ton of waste processed, though precise costs will not be known until the new equipment is fully operational. Individual citizens in the municipalities in Davis County pay varying fees for collection and disposal of their garbage. Because WES began installation after signing the Stipulation and Consent Agreement in March 2000, costs to citizens are not expected to change as a result of this rule. The only affected businesses are those supplying and installing the equipment needed to achieve the new emissions standards, and they will benefit.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: The only businesses involved with WES are the suppliers and installers of the new equipment necessary to achieve the new emission standards, who will benefit. Dianne R. Nielson

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
 Air Quality
 150 North 1950 West
 PO Box 144820
 Salt Lake City, UT 84114-4820, or
 at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmiller@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 07/31/2001; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 07/17/2001, 6:30 p.m., Layton City Hall, 447 North Wasatch Dr, Layton, UT.

THIS RULE MAY BECOME EFFECTIVE ON: 09/05/2001

AUTHORIZED BY: Cheryl Heying, Planning Branch Manager

R307. Environmental Quality, Air Quality.

R307-223. Emission Standards: Existing Small Municipal Waste Combustion Units.

R307-223-1. Purpose and Applicability.

(1) R307-223 regulates emissions from existing small municipal waste combustion units. The purpose of R307-223 is to reduce the emissions of particulate matter, sulfur dioxide, hydrogen chloride, oxides of nitrogen, carbon monoxide, lead, cadmium, mercury, and dioxins and furans from small municipal waste combustion units. Reductions are required by 42 U.S.C. 7411(d) and 7429 and 40 CFR Part 60, subpart BBBB, published at 63 FR 76378, December 6, 2000, and by the Plan for Existing Small Municipal Waste Combustion Units that is incorporated by reference at R307-220-4.

(2) R307-223 applies to each existing small municipal waste combustion unit that has the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel and commenced construction on or before August 30, 1999. A list of facilities not subject to R307-223 is found in 40 CFR 60.1555(a) through (k), and is hereby adopted and incorporated by reference.

(3) If an owner or operator of a municipal waste combustion unit makes physical or operational changes to an existing municipal waste combustion unit primarily to comply with the Plan for Existing Small Municipal Waste Combustion Units that is incorporated by reference at R307-220-4, then R307-210 does not apply to that unit. Such changes do not constitute modifications or reconstructions under R307-210.

(4) The owner or operator of any source subject to R307-223 also is required to submit an application for an operating permit under R307-415 and must notify the executive secretary that the source is subject to CFR Part 60, Subpart BBBB no later than January 1, 2002.

R307-223-2. Definitions and Equations.

(1) The following definitions apply only to R307-223. Definitions found in 40 CFR 60.1940, effective February 5, 2001, and published at 65 FR 76378, are adopted and incorporated by reference, with the following substitutions.

(a) Substitute "executive secretary" for all federal regulation references to "Administrator" or "EPA Administrator."

(b) Substitute "State of Utah" for all federal regulation references to "State," "State agency" or "State regulatory agency."

(c) "State plan" means the Plan for Existing Small Municipal Waste Combustion Units that is incorporated by reference at R307-220-4.

(d) "You" means the owner or operator of a small municipal waste combustion unit.

(e) Substitute "Rule R307-223" for all references to "this subpart."

(f) Substitute "40 CFR Part 60" for all references to "this part."

(g) Substitute "40 CFR" for all references to "This title."

(2) Equations found in 40 CFR 60.1935, effective February 5, 2001, and published at 65 FR 76378, are adopted and incorporated by reference.

R307-223-3. Requirements.

(1) Each incinerator owner or operator subject to R307-223 must comply with the requirements of 40 CFR 60.1540 and 60.1585 through 60.1905, and with the requirements and schedules set forth in Tables 2 through 8 that are found following 40 CFR 60.1940 for operator training and certification, operating requirements, emission limits, continuous emission monitoring, stack testing, other monitoring requirements, record keeping, and reporting. These provisions and table are adopted and incorporated by reference with the exceptions listed below.

(a) In 40 CFR 60.1650(a), delete "or state."

(b) In 40 CFR 60.1675(a), delete "or a current provisional operator certification from your State certification program."

(c) In 40 CFR 1675 (c), change "three" to "two," and delete 40 CFR 1675(c)(3).

(2) Compliance dates. Each incinerator must be in compliance with the dates in Section III of the Plan.

**KEY: air pollution, municipal waste incinerator*, waste to energy plant*
2001 19-2-104**

**Environmental Quality, Drinking Water
R309-605
Source Protection: Drinking Water
Source Protection for Surface Water
Sources**

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 23845

FILED: 06/15/2001, 08:34

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The Drinking Water Source Protection (DWSP) for Surface Water Sources rule was implemented on June 12, 2000. Since then, the Division of Drinking Water has produced reports for each affected drinking water system to assist the systems in complying with the rule. Each report shows the watershed area for the source, and identifies major potential contamination sources (PCSs). It became apparent that the requirements of the rule would be excessively burdensome for some smaller systems with large watersheds. The proposed changes provide a mechanism to simplify the assessment of PCSs, and allow systems to focus their efforts on managing the most risky PCSs, rather than requiring them to propose management strategies for all PCSs.

SUMMARY OF THE RULE OR CHANGE: The current version of the rule requires systems to assess the hazards associated with each individual PCS. The proposed revision allows systems to combine assessments for related or similar PCSs, such as mines in one mining district, or septic tanks in one residential development or community. The current version of the rule also requires systems to propose strategies to manage the risk associated with all individual PCSs. The proposed change allows systems to manage the three worst PCSs. The proposed change provides for requiring additional management for hazardous PCSs, if necessary, and also provides for future revisions of the list, which may require management of additional PCSs as the plan is revised and resubmitted. Plans are currently revised and resubmitted every six years. Other changes in the rule are clarifications and corrections that do not affect the scope of work.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 19-4-104(1)(a)(iv)

ANTICIPATED COST OR SAVINGS TO:

- ❖ **THE STATE BUDGET:** None--No change in scope of work to Division of Drinking Water to other state entities
- ❖ **LOCAL GOVERNMENTS:** \$1,000 - \$3,000 savings, due to decreased scope of work for associated public water systems
- ❖ **OTHER PERSONS:** \$1,000 - \$3,000 savings, due to decreased scope of work scope of work for associated public water systems

COMPLIANCE COSTS FOR AFFECTED PERSONS: There will be no additional costs, since these changes will decrease the scope and work involved in complying with the rule. The program was designed to make it possible for systems to complete the plans themselves, without relying on technical assistance from the outside. Total cost per surface water source is estimated at \$500 to \$2,500, depending on whether a system hires outside assistance, and depending on the size of the watershed area contributing to the source.

UTAH STATE PLAN
FOR
IMPLEMENTATION OF EMISSION CONTROLS FOR
EXISTING DESIGNATED FACILITIES

**SECTION III, PLAN FOR
Small Municipal Waste Combustion Units**

Draft

**Implementation of 40 CFR 60
Subpart BBBB (60.1500 - 60.1940)**

Adopted by the Air Quality Board
September 5, 2001

Table of Contents

<u>Page</u>	<u>Title</u>
1	I. INTRODUCTION AND DEFINITIONS
1	The Act of Congress
1	The EPA's Action
1	Applicability of the State Plan and Rules
1	Regulated Pollutants
2	Definitions
9	II. RESPONSIBILITIES
9	A. The States
10	B. The EPA
10	III. COMPLIANCE SCHEDULE
10	§60.1535 What compliance schedule must I include in my State plan?
10	IV. OPERATOR TRAINING: GOOD COMBUSTION PRACTICES:
10	§60.1645 What types of training must I do?
11	§60.1650 Who must complete the operator training course? By when?
11	§60.1655 Who must complete the plant-specific training course?
11	§60.1660 What plant-specific training must I provide?
12	§60.1665 What information must I include in the plant-specific operating manual?
13	§60.1670 Where must I keep the plant-specific operating manual?
13	V. OPERATOR CERTIFICATION: GOOD COMBUSTION PRACTICES:
13	§60.1675 What types of operator certification must the chief facility operator and shift supervisor obtain and by when must they obtain it?
14	§60.1680 After the required date for operator certification, who may operate the municipal waste combustion unit?
14	§60.1685 What if all the certified operators must be temporarily offsite?
15	VI. OPERATING REQUIREMENTS: GOOD COMBUSTION PRACTICES:
15	§60.1690 What are the operating practice requirements for my municipal waste combustion unit?
16	§60.1695 What happens to the operating requirements during periods of startup, shutdown, and malfunction?

16 VII. EMISSION LIMITS

16 §60.1700 What pollutants are regulated by this Plan?

17 §60.1705 What emission limits must I meet? By when?

17 §60.1710 What happens to the emission limits during periods of startup, shutdown, and malfunction?

17 VIII. CONTINUOUS EMISSION MONITORING

17 §60.1715 What types of continuous emission monitoring must I perform?

17 §60.1720 What continuous emission monitoring systems must I install for gaseous pollutants?

18 §60.1725 How are the data from the continuous emission monitoring systems used?

18 §60.1740 What is my schedule for evaluating continuous emission monitoring systems?

19 §60.1745 What must I do if I choose to monitor carbon dioxide instead of oxygen as a diluent gas?

19 §60.1750 What is the minimum amount of monitoring data I must collect with my continuous emission monitoring systems and is the data collection requirement enforceable?

20 §60.1755 How do I convert my 1-hour arithmetic averages into appropriate averaging times and units?

20 §60.1760 What is required for my continuous opacity monitoring system and how are the data used?

21 §60.1765 What additional requirements must I meet for the operation of my continuous emission monitoring systems and continuous opacity monitoring system?

21 §60.1770 What must I do if any of my continuous emission monitoring systems are temporarily unavailable to meet the data collection requirements?

21 IX. STACK TESTING

21 §60.1775 What types of stack tests must I conduct?

21 §60.1780 How are the stack test data used?

21 §60.1785 What schedule must I follow for the stack testing?

21 §60.1790 What test methods must I use to stack test?

22 §60.1795 May I conduct stack testing less often?

23 §60.1800 May I deviate from the 13-month testing schedule if unforeseen circumstances arise?

23 X. OTHER MONITORING REQUIREMENTS

23 §60.1805 Must I meet other requirements for continuous monitoring?

24 §60.1810 How do I monitor the load of my municipal waste combustion unit?

25 §60.1815 How do I monitor the temperature of flue gases at the inlet of my particulate matter control device?

- 25 §60.1820 How do I monitor the injection rate of activated carbon?
 25 §60.1825 What is the minimum amount of monitoring data I must collect with my
 continuous parameter monitoring systems and is the data collection requirement
 enforceable?
- 26 XI. RECORD-KEEPING
- 26 §60.1830 What records must I keep?
 26 §60.1835 Where must I keep my records and for how long?
 26 §60.1840 What records must I keep for operator training and certification?
 28 §60.1845 What records must I keep for stack tests?
 28 §60.1850 What records must I keep for continuously monitored pollutants or parameters?
 30 §60.1855 What records must I keep for municipal waste combustion units that use activated
 carbon?
- 32 XII. REPORTING
- 32 §60.1860 What reports must I submit and in what form?
 32 §60.1865 What are the appropriate units of measurement for reporting my data?
 32 §60.1870 When must I submit the initial report?
 32 §60.1875 What must I include in my initial report?
 34 §60.1880 When must I submit the annual report?
 34 §60.1885 What must I include in my annual report?
 36 §60.1890 What must I do if I am out of compliance with the requirements of this Plan?
 36 §60.1895 If a semiannual report is required, when must I submit it?
 36 §60.1900 What must I include in the semiannual out-of-compliance reports?
 38 §60.1905 Can reporting dates be changed?

Appendixes

- 39 Appendix A. List of Tables
- 39 Table 1. Compliance Schedule and Increment of Progress
 40 Table 2. Emission Limits for Existing Class I Small Municipal Waste Combustion Units
 41 Table 3. Class I Nitrogen Oxide Emission Limits
 41 Table 4. Class II Emission Limits
 42 Table 5. Carbon Monoxide Emissions Limits
 43 Table 6. Requirements for Validating Continuous Emission Monitoring Systems (CEMS)
 44 Table 7. Requirements for Continuous Emission Monitoring Systems (CEMS)
 45 Table 8. Requirements for Stack Tests
- 46 Appendix B. Equations.
 49 Appendix C. WES's Emission Inventory

1
2
3
4 **I. INTRODUCTION AND DEFINITIONS**
5

6 **The Act of Congress:** The Congress of the United States authorized EPA to develop standards and
7 guidelines to govern the operation of new and existing incinerators that burn municipal waste materials,
8 and the States to develop a Plan to implement the guidelines. See the Clean Air Act, sections 111(d) and
9 129 (42 U.S.C. 7411(d) and 7429).
10

11 **The EPA's Action:** On December 6, 2000, EPA promulgated a set of guidelines to govern the operation
12 of small [existing] combustion units that began construction on or before August 30, 1999 that [burn
13 municipal solid waste] has the capacity to combust at least 35 tons per day but no more than 250 tons per
14 day of municipal solid waste or refuse-derived fuel; the guidelines are codified in 40 CFR 60 Subpart
15 BBBB.. Two classes of "Small" have been specified. Class I units are small municipal waste
16 combustors located at plants with an aggregate plant capacity greater than 250 tons per day of municipal
17 solid waste. If aggregate plant capacity is less than or equal to 250 tons per day, the plant is identified as
18 Class II.
19

20 **Applicability:** Only one municipal waste incineration facility is known to exist in Utah, Wasatch
21 Energy System (WES) operating in Layton, in Davis County. WES is a Class I facility and is subject to
22 the Class I provisions of 40 CFR 60, Subpart BBBB, as well as to this Plan and R307-223.
23

24 WES's compliance date for meeting the emission limits in R307-223 and this Plan are specified in the
25 Stipulation and Consent Order between WES and the State of Utah, dated March 27, 2000. Compliance
26 dates for WES for other components of R307-223 and this Plan are as specified in R307-223-3 unless a
27 more stringent requirement is specified in the Stipulation and Consent Order or Approval Order DAQE-
28 516-00.
29

30 **Regulated Pollutants** The guidelines regulate emissions of pollutants that the EPA has considered to be
31 carcinogenic, toxic, or have pulmonary adverse effects following exposure at sufficient concentrations.
32 The regulated pollutants specified in the guidelines are:
33

34 Particulate Matter [PM]	Cadmium [Cd]
35 Sulfur Dioxide [SO ₂]	Mercury [Hg]
36 Hydrogen Chloride [HCl]	Dioxin [total mass basis]
37 Oxides of Nitrogen [NO _x]	Furan [total mass basis]
38 Carbon Monoxide [CO]	Fugitive ash emissions
39 Lead [Pb]	Opacity

40

41 The emission limits specified for the above pollutants [see Tables in Appendix A] are adopted from
42 incinerators that have already achieved these limits in their operations. The emission limits are achieved
43 through the application of maximum achievable control technology (MACT) available at the present
44 state of knowledge.
45

1
2
3
4
5
6
7
8
9

Definitions
[40 CFR Part 60, Sec. 1940]

10
11
12
13

Terms used but not defined in this section are defined in the CAA and in Subparts A and B of 40 CFR Part 60.

14
15
16
17

~~[Administrator means the Executive Secretary of the Air Quality Board.~~

18
19
20
21
22
23

~~]Air curtain incinerator means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of that type can be constructed above or below ground and with or without refractory walls and floor.~~

24
25
26
27
28
29

Batch municipal waste combustion unit means a municipal waste combustion unit designed so it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed during combustion.

30
31
32
33
34
35

Calendar quarter means three consecutive months (non-overlapping) beginning on: January 1, April 1, July 1, or October 1.

36
37
38
39
40

Calendar year means 365 (or 366 consecutive days in leap years) consecutive days starting on January 1 and ending on December 31.

Chief facility operator means the person in direct charge and control of the operation of a municipal waste combustion unit. That person is responsible for daily onsite supervision, technical direction, management, and overall performance of the municipal waste combustion unit.

Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See the definition in this section of "municipal waste combustion plant capacity" for specification of which units at a plant site are included in the aggregate capacity calculation.

Class II units mean small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See the definition in this section of "municipal waste combustion plant capacity" for specification of which units at a plant site are included in the aggregate capacity calculation.

1 **Clean wood** means untreated wood or untreated wood products including clean untreated
2 lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not
3 include two items:

4 (1) "Yard waste," which is defined elsewhere in this section.

5 (2) Construction, renovation, or demolition wastes (for example, railroad ties and telephone
6 poles) that are exempt from the definition of "municipal solid waste" in this section.

7
8 **Co-fired combustion unit** means a unit that combusts municipal solid waste with non-municipal
9 solid waste fuel (for example, coal, industrial process waste). To be considered a co-fired
10 combustion unit, the unit must be subject to a federally enforceable permit that limits it to
11 combusting a fuel feed stream which is 30 percent or less (by weight) municipal solid waste as
12 measured each calendar quarter.

13
14 **Continuous burning** means the continuous, semi-continuous, or batch feeding of municipal
15 solid waste to dispose of the waste, produce energy, or provide heat to the combustion system in
16 preparation for waste disposal or energy production. Continuous burning does not mean the use
17 of municipal solid waste solely to thermally protect the grate or hearth during the startup period
18 when municipal solid waste is not fed to the grate or hearth.

19
20 **Continuous emission monitoring system** means a monitoring system that continuously
21 measures the emissions of a pollutant from a municipal waste combustion unit.

22
23 **Dioxins/furans** mean tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

24
25 **Effective date of State plan approval** means the effective date that the EPA approves the State
26 plan. The Federal Register specifies the date in the notice that announces EPA's approval of the
27 State plan.

28
29 **Eight-hour block average** means the average of all hourly emission concentrations or parameter
30 levels when the municipal waste combustion unit operates and combusts municipal solid waste
31 measured over any of three 8-hour periods of time:

32
33 (1) 12:00 midnight to 8:00 a.m.

34 (2) 8:00 a.m. to 4:00 p.m.

35 (3) 4:00 p.m. to 12:00 midnight.

36
37 **Federally enforceable** means all limits and conditions the Executive Secretary can enforce
38 (including the requirements of 40 CFR parts 60, 61, and 63), requirements in a State's
39 implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40
40 CFR 51.18 and 40 CFR 51.24.

41
42 **First calendar half** means the period that starts on January 1 and ends on June 30 in any year.

1 **Fluidized bed combustion unit** means a unit where municipal waste is combusted in a fluidized
2 bed of material. The fluidized bed material may remain in the primary combustion zone or may
3 be carried out of the primary combustion zone and returned through a recirculation loop.
4

5 **Four-hour block average or 4-hour block average** means the average of all hourly emission
6 concentrations or parameter levels when the municipal waste combustion unit operates and
7 combusts municipal solid waste measured over any of six 4-hour periods:
8

- 9 (1) 12:00 midnight to 4:00 a.m.
- 10 (2) 4:00 a.m. to 8:00 a.m.
- 11 (3) 8:00 a.m. to 12:00 noon.
- 12 (4) 12:00 noon to 4:00 p.m.
- 13 (5) 4:00 p.m. to 8:00 p.m.
- 14 (6) 8:00 p.m. to 12:00 midnight.

15
16 **Mass burn refractory municipal waste combustion unit** means a field-erected municipal
17 waste combustion unit that combusts municipal solid waste in a refractory wall furnace. Unless
18 otherwise specified, that includes municipal waste combustion units with a cylindrical rotary
19 refractory wall furnace.
20

21 **Mass burn rotary water-wall municipal waste combustion unit** means a field-erected
22 municipal waste combustion unit that combusts municipal solid waste in a cylindrical rotary
23 water-wall furnace.
24

25 **Mass burn water-wall municipal waste combustion unit** means a field-erected municipal
26 waste combustion unit that combusts municipal solid waste in a water-wall furnace.
27

28 **Maximum demonstrated load of a municipal waste combustion unit** means the highest
29 4-hour block arithmetic average municipal waste combustion unit load achieved during 4
30 consecutive hours in the course of the most recent dioxin/furan stack test that demonstrates
31 compliance with the applicable emission limit for dioxin/furan specified in this subpart.
32

33 **Maximum demonstrated temperature of the particulate matter control device** means the
34 highest 4-hour block arithmetic average flue gas temperature measured at the inlet of the
35 particulate matter control device during 4 consecutive hours in the course of the most recent
36 stack test for dioxin/furan emissions that demonstrates compliance with the limits specified in
37 this subpart.
38

39 **Medical/infectious waste** means any waste meeting the definition of "medical/infectious waste"
40 in 40 CFR 60.51c.
41

1 **Mixed fuel-fired (pulverized coal/refuse-derived fuel) combustion unit** means a combustion
2 unit that combusts coal and refuse-derived fuel simultaneously, in which pulverized coal is
3 introduced into an air stream that carries the coal to the combustion chamber of the unit where it
4 is combusted in suspension. That includes both conventional pulverized coal and micro-
5 pulverized coal.
6

7 **Modification or modified municipal waste combustion unit** means a municipal waste
8 combustion unit you have changed after June 6, 2001, and that meets one of two following
9 criteria:
10

11 (1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original
12 cost of building and installing the unit (not including the cost of land) updated to current costs.
13

14 (2) Any physical change in the municipal waste combustion unit or change in the method of
15 operating it that increases the emission level of any air pollutant for which new source
16 performance standards have been established under section 129 or section 111 of the CAA.
17 Increases in the emission level of any air pollutant are determined when the municipal waste
18 combustion unit operates at 100 percent of its physical load capability and are measured
19 downstream of all air pollution control devices. Load restrictions based on permits or other
20 nonphysical operational restrictions cannot be considered in the determination.
21

22 **Modular excess-air municipal waste combustion unit** means a municipal waste combustion
23 unit that combusts municipal solid waste, is not field-erected, and has multiple combustion
24 chambers, all of which are designed to operate at conditions with combustion air amounts in
25 excess of theoretical air requirements.
26

27 **Modular starved-air municipal waste combustion unit** means a municipal waste combustion
28 unit that combusts municipal solid waste, is not field-erected, and has multiple combustion
29 chambers in which the primary combustion chamber is designed to operate at below-
30 stoichiometric conditions.
31

32 **Municipal solid waste or municipal-type solid waste** means household, commercial/retail, or
33 institutional waste. Household waste includes material discarded by residential dwellings,
34 hotels, motels, and other similar permanent or temporary housing. Commercial/retail waste
35 includes material discarded by stores, offices, restaurants, warehouses, non-manufacturing
36 activities at industrial facilities, and other similar establishments or facilities. Institutional waste
37 includes materials discarded by schools, by hospitals (non-medical), by non-manufacturing
38 activities at prisons and government facilities, and other similar establishments or facilities.
39 Household, commercial/retail, and institutional waste does include yard waste and refuse-derived
40 fuel. Household, commercial/retail, and institutional waste does not include used oil; sewage
41 sludge; wood pallets; construction, renovation, and demolition wastes (which include railroad

1 ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical
2 waste; or motor vehicles (including motor vehicle parts or vehicle fluff).

3
4 **Municipal waste combustion plant** means one or more municipal waste combustion units at the
5 same location as specified under Applicability of State Plans (40 CFR 60.1550(a)).

6
7 **Municipal waste combustion plant capacity** means the aggregate municipal waste combustion
8 capacity of all municipal waste combustion units at the plant that are not subject to Subparts Ea,
9 Eb, or AAAA of 40 CFR Part 60.

10
11 **Municipal waste combustion unit** means any setting or equipment that combusts solid, liquid,
12 or gasified municipal solid waste including, but not limited to, field-erected combustion units
13 (with or without heat recovery), modular combustion units (starved-air or excess-air), boilers (for
14 example, steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air
15 curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Two criteria further
16 define municipal waste combustion units:

17
18 (1) Municipal waste combustion units do not include pyrolysis or combustion units located at a
19 plastics or rubber recycling unit as specified under Applicability of State Plans (§60.1555(h) and
20 (i). Municipal waste combustion units do not include cement kilns that combust municipal solid
21 waste as specified under Applicability of State Plans (§60.1555(j)). Municipal waste combustion
22 units also do not include internal combustion engines, gas turbines, or other combustion devices
23 that combust landfill gases collected by landfill gas collection systems.

24
25 (2) The boundaries of a municipal waste combustion unit are defined as follows. The municipal
26 waste combustion unit includes, but is not limited to, the municipal solid waste fuel feed system,
27 grate system, flue gas system, bottom ash system, and the combustion unit water system. The
28 municipal waste combustion unit does not include air pollution control equipment, the stack,
29 water treatment equipment, or the turbine-generator set. The municipal waste combustion unit
30 boundary starts at the municipal solid waste pit or hopper and extends through three areas:

31
32 (i) The combustion unit flue gas system, which ends immediately after the heat recovery
33 equipment or, if there is no heat recovery equipment, immediately after the combustion chamber.

34
35 (ii) The combustion unit bottom ash system, which ends at the truck loading station or similar
36 equipment that transfers the ash to final disposal. It includes all ash handling systems connected
37 to the bottom ash handling system.

38
39 (iii) The combustion unit water system, which starts at the feed water pump and ends at the
40 piping that exits the steam drum or super-heater.
41

1 **Particulate matter** means total particulate matter emitted from municipal waste combustion units as
2 measured using EPA Reference Method 5 in appendix A of 40 CFR Part 60 and the procedures specified
3 in 40 CFR 60.1790.
4

5 **Plastics or rubber recycling unit** means an integrated processing unit for which plastics, rubber, or
6 rubber tires are the only feed materials (incidental contaminants may be in the feed materials). The feed
7 materials are processed and marketed to become input feed stock for chemical plants or petroleum
8 refineries. The following three criteria further define a plastics or rubber recycling unit:
9

10 (1) Each calendar quarter, the combined weight of the feed stock that a plastics or rubber
11 recycling unit produces must be more than 70 percent of the combined weight of the
12 plastics, rubber, and rubber tires that recycling unit processes.
13

14 (2) The plastics, rubber, or rubber tires fed to the recycling unit may originate from
15 separating or diverting plastics, rubber, or rubber tires from municipal or industrial solid
16 waste. The feed materials may include manufacturing scraps, trimmings, and off-
17 specification plastics, rubber, and rubber tire discards.
18

19 (3) The plastics, rubber, and rubber tires fed to the recycling unit may contain incidental
20 contaminants (for example, paper labels on plastic bottles or metal rings on plastic bottle
21 caps).
22

23 **Potential hydrogen chloride emissions** means the level of emissions from a municipal waste
24 combustion unit that would occur from combusting municipal solid waste without emission
25 controls for acid gases.
26

27 **Potential mercury emissions** means the level of emissions from a municipal waste combustion
28 unit that would occur from combusting municipal solid waste without controls for mercury
29 emissions.
30

31 **Potential sulfur dioxide emissions** means the level of emissions from a municipal waste
32 combustion unit that would occur from combusting municipal solid waste without emission
33 controls for acid gases.
34

35 **Pyrolysis/combustion unit** means a unit that produces gases, liquids, or solids by heating
36 municipal solid waste. The gases, liquids, or solids produced are combusted and the emissions
37 vented to the atmosphere.
38

39 **Reconstruction** means rebuilding a municipal waste combustion unit and meeting two criteria:
40

41 (1) The reconstruction begins after June 6, 2001;
42

1 (2) The cumulative cost of the construction over the life of the unit exceeds 50 percent of
2 the original cost of building and installing the municipal waste combustion unit (not
3 including land) updated to current costs (current dollars). To determine what systems are
4 within the boundary of the municipal waste combustion unit used to calculate the costs,
5 see the definition in this section of "municipal waste combustion unit."
6

7 **Refractory unit or refractory wall furnace** means a municipal waste combustion unit that has
8 no energy recovery (such as through a waterwall) in the furnace of the municipal waste
9 combustion unit.

10 **Refuse-derived fuel** means a type of municipal solid waste produced by processing municipal
11 solid waste through shredding and size classification. That includes all classes of refuse-derived
12 fuel including two fuels:
13

- 14
15 (1) Low-density fluff refuse-derived fuel through densified refuse-derived fuel.
16 (2) Pelletized refuse-derived fuel.
17

18 **Same location** means the same or contiguous properties under common ownership or control,
19 including those separated only by a street, road, highway, or other public right-of-way. Common
20 ownership or control includes properties that are owned, leased, or operated by the same entity,
21 parent entity, subsidiary, subdivision, or any combination thereof. Entities may include a
22 municipality, other governmental unit, or any quasi-governmental authority (for example, a
23 public utility district or regional authority for waste disposal).
24

25 **Second calendar half** means the period that starts on July 1 and ends on December 31 in any
26 year.
27

28 **Shift supervisor** means the person who is in direct charge and control of operating a municipal
29 waste combustion unit and who is responsible for onsite supervision, technical direction,
30 management, and overall performance of the municipal waste combustion unit during an
31 assigned shift.
32

33 **Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel) combustion unit** means a
34 municipal waste combustion unit that combusts coal and refuse-derived fuel simultaneously, in
35 which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a
36 grate from above. Combustion takes place both in suspension and on the grate.
37

38 **Standard conditions** when referring to units of measure mean a temperature of 20°C and a
39 pressure of 101.3 kilo-pascals.
40

41 **Startup period** means the period when a municipal waste combustion unit begins the continuous
42 combustion of municipal solid waste. It does not include any warmup period during which the

1 municipal waste combustion unit combusts fossil fuel or other solid waste fuel but receives no
2 municipal solid waste.

3
4 **State** means any of the 50 United States and the protectorates of the United States.

5
6 **State plan** means a plan submitted pursuant to sections 111(d) and 129(b)(2) of the CAA (42
7 U.S.C. 7411(d) and 7429(b)(2) and subpart B of 40 CFR Part 60, that implements and enforces
8 this subpart.

9
10 **Stoker (refuse-derived fuel) combustion unit** means a steam generating unit that combusts
11 refuse-derived fuel in a semi-suspension combusting mode, using air-fed distributors.

12
13 **Total mass dioxin/furan or total mass** means the total mass of tetra- through octa-chlorinated
14 dibenzo-p-dioxin and dibenzofurans as determined using EPA Reference Method 23 in appendix
15 A of this part and the procedures specified in §60.1790.

16
17 **Twenty-four hour daily average or 24-hour daily average** means either the arithmetic mean or
18 geometric mean (as specified) of all hourly emission concentrations when the municipal waste
19 combustion unit operates and combusts municipal solid waste measured during the 24 hours
20 between 12:00 midnight and the following midnight.

21
22 **Untreated lumber** means wood or wood products that have been cut or shaped and include wet,
23 air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that
24 have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper
25 arsenate, penta-chloro-phenol, and creosote.

26
27 **Water-wall furnace** means a municipal waste combustion unit that has energy (heat) recovery in the
28 furnace (for example, radiant heat transfer section) of the combustion unit.

29
30 **Yard waste** means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They
31 come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards
32 or other private or public lands. Yard waste does not include two items:

33
34 (1) Construction, renovation, and demolition wastes that are exempt from the definition of
35 "municipal solid waste" in this section.

36
37 (2) Clean wood that is exempt from the definition of "municipal solid waste" in this section.

38 39 40 **II Responsibilities**

41
42 A. The States. Under 40 CFR 60.1505, each state is required to prepare a plan to implement the federal
43 requirements. States also are responsible for ensuring that the affected facilities within their borders

1 meet the requirements established in 40 CFR Part 60, Subpart BBBB. Finally, the State of Utah commits
 2 to submit annual reports on Plan enforcement to EPA as required under 40 CFR 60.25(e)
 3

4 B. The EPA: Section 129 of the 1990 Clean Air Act Amendments authorizes EPA to review, approve,
 5 or reject the State's Plan. Under 40 CFR 60.27, EPA is expected to approve or reject the Plan within
 6 four months after the date on which the state must submit the Plan to EPA. The EPA also provides
 7 appropriate information to assist the states and local agencies to develop a complete and acceptable plan.
 8 If the State is unable or unwilling to submit a Plan that meets EPA's approval, 40 CFR 60.27 requires
 9 EPA to write and enforce a federal Plan.

10 11 **III. COMPLIANCE SCHEDULE.**

12
 13 (a) Compliance dates for Wasatch Energy Systems (WES) are as specified in this Plan, and
 14 in the Stipulation and Consent Order between WES and the State of Utah, dated March 27,
 15 2000. That Stipulation and Consent order specifies that WES will complete certain
 16 intermediate steps within specified periods after the issuance of a new Approval Order. The
 17 new Approval Order was issued on September 6, 2000. The intermediate deadlines set by the
 18 Stipulation and Consent Order are measured from the date the Approval Order was issued:
 19

- 20 (1) Equipment procurement shall be complete within 6 months (March 6, 2001).
 21 (2) Construction of the retrofit shall be complete within 16 months (January 6, 2002).
 22 (3) Performance testing shall begin within 19 months (April 6, 2002).
 23 (4) WES shall be in final compliance within 25 months (October 6, 2002).
 24

25 (b) There are no other Class I or Class II units located within Utah. However, if any such
 26 unit is identified later, its final compliance date would be one year after the effective date of
 27 EPA approval of this Plan.
 28
 29

30 **IV. OPERATOR TRAINING: GOOD COMBUSTION PRACTICES**

31 **§60.1645 What types of training must I do?**

32
 33 There are two types of required training:
 34

- 35
 36 (a) Training of operators of municipal waste combustion units using the EPA or a
 37 State-approved training course.
 38
 39 (b) Training of plant personnel using a plant-specific training course.
 40
 41
 42
 43

1 **§60.1650 Who must complete the operator training course? By when?**
 2

3 (a) Three types of employees must complete the EPA or State-approved operator training
 4 course:

- 5 (1) Chief facility operators.
 6 (2) Shift supervisors.
 7 (3) Control room operators.

8
 9 (b) Those employees must complete the operator training course by the ~~later~~earlier of three
 10 dates:

- 11
 12 (1) One year after the effective date of State plan approval.
 13 (2) Six months after your municipal waste combustion unit starts up.
 14 (3) The date before an employee assumes responsibilities that affect operation of the
 15 municipal waste combustion unit.

16
 17 (c) The requirement in paragraph (a) of this section does not apply to chief facility operators,
 18 shift supervisors, and control room operators who have obtained full certification from the
 19 American Society of Mechanical Engineers on or before the effective date of State plan
 20 approval.

21
 22 (d) You may request that the Executive Secretary waive the requirement in paragraph (a) of
 23 this section for chief facility operators, shift supervisors, and control room operators who
 24 have obtained provisional certification from the American Society of Mechanical Engineers
 25 on or before the effective date of State plan approval.

26
 27 **§60.1655 Who must complete the plant-specific training course?**
 28

29 All employees with responsibilities that affect how a municipal waste combustion unit
 30 operates must complete the plant-specific training course. Include at least six types of
 31 employees:

- 32
 33 (a) Chief facility operators.
 34 (b) Shift supervisors.
 35 (c) Control room operators.
 36 (d) Ash handlers.
 37 (e) Maintenance personnel.
 38 (f) Crane or load handlers.

39
 40 **§60.1660 What plant-specific training must I provide?**
 41

42 For plant-specific training, you must do four things:

1 (a) For training at a particular plant, develop a specific operating manual for that plant by the
2 later of two dates:

- 3
4 (1) Six months after your municipal waste combustion unit starts up.
5 (2) One year after the effective date of State plan approval.

6
7 (b) Establish a program to review the plant-specific operating manual with people whose
8 responsibilities affect the operation of your municipal waste combustion unit. Complete the
9 initial review by the later of three dates:

- 10
11 (1) One year after the effective date of State plan approval.
12 (2) Six months after your municipal waste combustion unit starts up.
13 (3) The date before an employee assumes responsibilities that affect operation of the
14 municipal waste combustion unit.

15
16 (c) Update your manual annually.

17
18 (d) Review your manual with staff annually.

19
20 **§60.1665 What information must I include in the plant-specific operating manual?**

21
22 You must include 11 items in the operating manual for your plant:

- 23
24 (a) A summary of all applicable requirements in this Plan.
25
26 (b) A description of the basic combustion principles that apply to municipal waste
27 combustion units.
28
29 (c) Procedures for receiving, handling, and feeding municipal solid waste.
30
31 (d) Procedures to be followed during periods of startup, shutdown, and malfunction of the
32 municipal waste combustion unit.
33
34 (e) Procedures for maintaining a proper level of combustion air supply.
35
36 (f) Procedures for operating the municipal waste combustion unit in compliance with the
37 requirements contained in this Plan.
38
39 (g) Procedures for responding to periodic upset or off-specification conditions.
40
41 (h) Procedures for minimizing carryover of particulate matter.
42

- 1 (i) Procedures for handling ash.
 2
 3 (j) Procedures for monitoring emissions from the municipal waste combustion unit.
 4
 5 (k) Procedures for record-keeping and reporting.
 6

7 **§60.1670 Where must I keep the plant-specific operating manual?**
 8

9 You must keep your operating manual in an easily accessible location at your plant. It must be
 10 available for review or inspection by all employees who must review it and by the Executive Secretary.
 11

12
 13 **V. OPERATOR CERTIFICATION: GOOD COMBUSTION PRACTICES:**
 14

15 **§60.1675 What types of operator certification must the chief facility operator and shift supervisor**
 16 **obtain and by when must they obtain it?**
 17

18 (a) Each chief facility operator and shift supervisor must obtain and keep a current provisional
 19 operator certification from the American Society of Mechanical Engineers (QRO-1-1994 –
 20 Qualification and Certification of Resource recovery Facility Operators, which are incorporated by
 21 reference in 40 CFR 60, §60.17.)
 22

23 (b) Each chief facility operator and shift supervisor must obtain a provisional certification by the
 24 later of three dates:
 25

- 26 (1) For Class I units, 12 months after the effective date of State plan approval. For Class II
 27 units, 18 months after the effective date of State plan approval.
 28 (2) Six months after the municipal waste combustion unit starts up.
 29 (3) Six months after they transfer to the municipal waste combustion unit or 6 months
 30 after they are hired to work at the municipal waste combustion unit.
 31

32 (c) Each chief facility operator and shift supervisor must take one of two actions:
 33

- 34 (1) Obtain a full certification from the American Society of Mechanical Engineers or a
 35 State certification program in your State.
 36 (2) Schedule a full certification exam with the American Society of Mechanical
 37 Engineers (QRO-1-1994) (incorporated by reference in §60.17).
 38

39 (d) The chief facility operator and shift supervisor must obtain the full certification or be
 40 scheduled to take the certification exam by the later of the following dates:
 41

- 42 (1) For Class I units, 12 months after the effective date of State plan approval. For Class
 43 II units, 18 months after the effective date of State plan approval.
 44

1 (2) Six months after the municipal waste combustion unit starts up.

2
3 (3) Six months after they transfer to the municipal waste combustion unit or 6 months
4 after they are hired to work at the municipal waste combustion unit.

5
6 **§60.1680 After the required date for operator certification, who may operate the municipal**
7 **waste combustion unit?**

8
9 After the required date for full or provisional certification, you must not operate your municipal
10 waste combustion unit unless one of four employees is on duty:

11
12 (a) A fully certified chief facility operator.

13
14 (b) A provisionally certified chief facility operator who is scheduled to take the full
15 certification exam.

16
17 (c) A fully certified shift supervisor.

18
19 (d) A provisionally certified shift supervisor who is scheduled to take the full certification
20 exam.

21
22 **§60.1685 What if all the certified operators must be temporarily offsite?**

23
24 If the certified chief facility operator and certified shift supervisor both are unavailable, a
25 provisionally certified control room operator at the municipal waste combustion unit may fulfill
26 the certified operator requirement. Depending on the length of time that a certified chief facility
27 operator and certified shift supervisor are away, you must meet one of three criteria:

28
29 (a) When the certified chief facility operator and certified shift supervisor are both offsite for
30 12 hours or less and no other certified operator is onsite, the provisionally certified control
31 room operator may perform those duties without notice to, or approval by, the Executive
32 Secretary.

33
34 (b) When the certified chief facility operator and certified shift supervisor are offsite for
35 more than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, the
36 provisionally certified control room operator may perform those duties without notice to, or
37 approval by, the Executive Secretary. However, you must record the periods when the
38 certified chief facility operator and certified shift supervisor are offsite and include the
39 information in the annual report as specified under §60.1885(1).

40
41 (c) When the certified chief facility operator and certified shift supervisor are offsite for
42 more than 2 weeks, and no other certified operator is onsite, the provisionally certified

1 control room operator may perform those duties without notice to, or approval by, the
2 Executive Secretary. However, you must take two actions:

3
4 (1) Notify the Executive Secretary in writing. In the notice, state what caused the
5 absence and what you are doing to ensure that a certified chief facility operator or
6 certified shift supervisor is onsite.

7
8 (2) Submit a status report and corrective action summary to the Executive Secretary
9 every 4 weeks following the initial notification. If the Executive Secretary notifies you
10 that your status report or corrective action summary is disapproved, the municipal waste
11 combustion unit may continue operation for 90 days, but then must cease operation. If
12 corrective actions are taken in the 90-day period such that the Executive Secretary
13 withdraws the disapproval, municipal waste combustion unit operation may continue.

14 15 16 **VI. OPERATING REQUIREMENTS: GOOD COMBUSTION PRACTICES:**

17 18 **§60.1690 What are the operating practice requirements for my municipal waste** 19 **combustion unit?**

20
21 (a) You must not operate your municipal waste combustion unit at loads greater than 110
22 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour
23 block average), as specified under "Definitions" in Section I of this Plan.

24
25 (b) You must not operate your municipal waste combustion unit so that the temperature at
26 the inlet of the particulate matter control device exceeds 17°C above the maximum
27 demonstrated temperature of the particulate matter control device (4-hour block average), as
28 specified under "Definitions" in Section I of this Plan.

29
30 (c) If your municipal waste combustion unit uses activated carbon to control dioxins/furans
31 or mercury emissions, you must maintain an 8-hour block average carbon feed rate at or
32 above the highest average level established during the most recent dioxins/furans or mercury
33 test.

34
35 (d) If your municipal waste combustion unit uses activated carbon to control dioxins/furans
36 or mercury emissions, you must evaluate total carbon usage for each calendar quarter. The
37 total amount of carbon purchased and delivered to your municipal waste combustion plant
38 must be at or above the required quarterly usage of carbon. At your option, you may choose
39 to evaluate required quarterly carbon usage on a municipal waste combustion unit basis for
40 each individual municipal waste combustion unit at your plant. Calculate the required
41 quarterly usage of carbon using equation 4 or 5 in Appendix B of this Plan.
42

1 (e) Your municipal waste combustion unit is exempt from limits on load level, temperature at the
 2 inlet of the particulate matter control device, and carbon feed rate during any of five situations:
 3

- 4 (1) During your annual tests for dioxins/furans.
 5 (2) During your annual mercury tests (for carbon feed rate requirements only).
 6 (3) During the 2 weeks preceding your annual tests for dioxins/furans.
 7 (4) During the 2 weeks preceding your annual mercury tests (for carbon feed rate requirements
 8 only).
 9 (5) Whenever the Executive Secretary permits you to do any of five activities:
 10
 11 (i) Evaluate system performance.
 12 (ii) Test new technology or control technologies.
 13 (iii) Perform diagnostic testing.
 14 (iv) Perform other activities to improve the performance of your municipal waste
 15 combustion unit.
 16 (v) Perform other activities to advance the state of the art for emission controls for your
 17 municipal waste combustion unit.

18
 19 **§60.1695 What happens to the operating requirements during periods of startup, shutdown, and**
 20 **malfunction?**

- 21
 22 (a) The operating requirements of this Plan apply at all times except during periods of municipal
 23 waste combustion unit startup, shutdown, or malfunction
 24
 25 (b) Each startup, shutdown, or malfunction must not last for longer than 3 hours.
 26

27
 28 **VII. EMISSION LIMITS**

29
 30 **§60.1700 What pollutants are regulated by this Plan?**

31
 32 Eleven pollutants, in four groupings, are regulated:

- 33 (a) Organics. Dioxins/furans.
 34 (b) Metals.
 35 (1) Cadmium.
 36 (2) Lead.
 37 (3) Mercury.
 38 (4) Opacity.
 39 (5) Particulate matter.
 40 (c) Acid gases.
 41 (1) Hydrogen chloride.
 42 (2) Nitrogen oxides.
 43 (3) Sulfur dioxide.
 44 (d) Other.
 45 (1) Carbon monoxide.
 46 (2) Fugitive ash.

1 **§60.1705 What emission limits must I meet? By when?**
2

3 (a) After the date the initial stack test and continuous emission monitoring system evaluation
4 are required or completed (whichever is earlier), you must meet the applicable emission
5 limits specified in the Tables in Appendix A.
6

7 (b) If your Class I municipal waste combustion unit began construction, reconstruction, or
8 modification after June 26, 1987, then you must comply with the dioxins/furans and mercury
9 emission limits specified in Table 2 in Appendix A of this Plan [~~one year after the effective~~
10 ~~date of State plan approval~~]by the date specified in Table 1 in Appendix A of this Plan.
11

12 **§60.1710 What happens to the emission limits during periods of startup, shutdown, and**
13 **malfunction?**
14

15 (a) The emission limits of this Plan apply at all times except during periods of municipal
16 waste combustion unit startup, shutdown, or malfunction.
17

18 (b) Each startup, shutdown, or malfunction must not last for longer than 3 hours
19

20 (c) A maximum of 3 hours of test data can be dismissed from compliance calculations during
21 periods of startup, shutdown, or malfunction.
22

23 (d) During startup, shutdown, or malfunction periods longer than 3 hours, emissions data
24 cannot be discarded from compliance calculations and all provisions under 40 CFR 60.11(d)
25 apply.
26

27
28 **VIII. CONTINUOUS EMISSION MONITORING**
29

30 **§60.1715 What types of continuous emission monitoring must I perform?**
31

32 To continuously monitor emissions, you must perform four tasks:
33

- 34 (a) Install continuous emission monitoring systems for certain gaseous pollutants.
35 (b) Make sure your continuous emission monitoring systems are operating correctly.
36 (c) Make sure you obtain the minimum amount of monitoring data.
37 (d) Install a continuous opacity monitoring system.
38

39 **§60.1720 What continuous emission monitoring systems must I install for gaseous**
40 **pollutants?**
41

1 (a) You must install, calibrate, maintain, and operate continuous emission monitoring
2 systems for oxygen (or carbon dioxide), sulfur dioxide, and carbon monoxide. If you operate
3 a Class I municipal waste combustion unit, also install, calibrate, maintain, and operate a
4 continuous emission monitoring system for nitrogen oxides. Install the continuous emission
5 monitoring systems for sulfur dioxide, nitrogen oxides, and oxygen (or carbon dioxide) at the
6 outlet of the air pollution control device.

7
8 (b) You must install, evaluate, and operate each continuous emission monitoring system
9 according to the "Monitoring Requirements" in 40 CFR 60.13, and Utah Rule R307-170.

10 (c) You must monitor the oxygen (or carbon dioxide) concentration at each location where
11 you monitor sulfur dioxide and carbon monoxide. Additionally, if you operate a Class I
12 municipal waste combustion unit, you must also monitor the oxygen (or carbon dioxide)
13 concentration at the location where you monitor nitrogen oxides.

14
15 (d) You may choose to monitor carbon dioxide instead of oxygen as a diluent gas. If you
16 choose to monitor carbon dioxide, then an oxygen monitor is not required and you must
17 follow the requirements in §60.1745 below.

18
19 (e) If you choose to demonstrate compliance by monitoring the percent reduction of sulfur
20 dioxide, you must also install continuous emission monitoring systems for sulfur dioxide and
21 oxygen (or carbon dioxide) at the inlet of the air pollution control device.

22
23 (f) If you prefer to use an alternative sulfur dioxide monitoring method, such as parametric
24 monitoring, or cannot monitor emissions at the inlet of the air pollution control device to
25 determine percent reduction, you can apply to the Executive Secretary for approval to use an
26 alternative monitoring method under 40 CFR 60.13(i).

27
28 **§60.1725 How are the data from the continuous emission monitoring systems used?**

29
30 You must use data from the continuous emission monitoring systems for sulfur dioxide,
31 nitrogen oxides, and carbon monoxide to demonstrate continuous compliance with the applicable
32 emission limits specified in the Tables of this Plan. To demonstrate compliance for
33 dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and
34 fugitive ash, see §60.1780 below.

35
36 **§60.1740 What is my schedule for evaluating continuous emission monitoring systems?**

37
38 (a) Conduct annual evaluations of your continuous emission monitoring systems no more
39 than 13 months after the previous evaluation was conducted.

40
41 (b) Evaluate your continuous emission monitoring systems daily and quarterly as specified in
42 40 CFR 60, Appendix F.

1 **§60.1745 What must I do if I choose to monitor carbon dioxide instead of oxygen as a**
2 **diluent gas?**

3
4 You must establish the relationship between oxygen and carbon dioxide during the initial
5 evaluation of your continuous emission monitoring systems. You may reestablish the
6 relationship during annual evaluations. To establish the relationship use three procedures:
7

8 (a) Use EPA Reference Method 3A or 3B in 40 CFR 60, Appendix A to determine oxygen
9 concentration at the location of your carbon dioxide monitor.

10
11 (b) Conduct at least three test runs for oxygen. Make sure each test run represents a 1-hour
12 average and that sampling continues for at least 30 minutes in each hour.

13
14 (c) Use the fuel-factor equation in EPA Reference Method 3B in 40 CFR 60, Appendix A to
15 determine the relationship between oxygen and carbon dioxide.
16

17 **§60.1750 What is the minimum amount of monitoring data I must collect with my**
18 **continuous emission monitoring systems and is the data collection requirement**
19 **enforceable?**

20
21 (a) Where continuous emission monitoring systems are required, obtain 1-hour arithmetic
22 averages. Make sure the averages for sulfur dioxide, nitrogen oxides (Class I municipal
23 waste combustion units only), and carbon monoxide are in parts per million by dry volume at
24 7 percent oxygen (or the equivalent carbon dioxide level). Use the 1-hour averages of
25 oxygen (or carbon dioxide) data from your continuous emission monitoring system to
26 determine the actual oxygen (or carbon dioxide) level and to calculate emissions at 7 percent
27 oxygen (or the equivalent carbon dioxide level).
28

29 (b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic
30 average. 40 CFR 60.13(e)(2) requires your continuous emission monitoring systems to
31 complete at least one cycle of operation (sampling, analyzing, and data recording) for each
32 15-minute period.
33

34 (c) Obtain valid 1-hour averages for 75 percent of the operating hours per day for 90 percent
35 of the operating days per calendar quarter. An operating day is any day the unit combusts any
36 municipal solid waste or refuse-derived fuel.
37

38 (d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this
39 section, you are in violation of the data collection requirement regardless of the emission
40 level monitored, and you must notify the Executive Secretary according to 40 CFR
41 60.1885(e).
42

1 (e) If you do not obtain the minimum data required in paragraphs (a) through (c) of this
2 section, you must still use all valid data from the continuous emission monitoring systems in
3 calculating emission concentrations and percent reductions in accordance with 40 CFR
4 60.1755.
5

6 **§60.1755 How do I convert my 1-hour arithmetic averages into appropriate averaging**
7 **times and units?**
8

9 (a) Use the equation in 40 CFR 60.1935(a) to calculate emissions at 7 percent oxygen.
10

11 (b) Use EPA Reference Method 19 in 40 CFR 60, Appendix A [section 4.3] to calculate the
12 daily geometric average concentrations of sulfur dioxide emissions. If you are monitoring the
13 percent reduction of sulfur dioxide, use EPA Reference Method 19 in 40 CFR 60, Appendix
14 A [section 5.4] to determine the daily geometric average percent reduction of potential sulfur
15 dioxide emissions.
16

17 (c) If you operate a Class I municipal waste combustion unit, use EPA Reference Method 19
18 in 40 CFR 60, Appendix A [section 4.1] to calculate the daily arithmetic average for
19 concentrations of nitrogen oxides.
20

21 (d) Use EPA Reference Method 19 in 40 CFR 60, Appendix A [section 4.1] to calculate the
22 4-hour or 24-hour daily block averages (as applicable) for concentrations of carbon
23 monoxide.
24

25 **§60.1760 What is required for my continuous opacity monitoring system and how are the**
26 **data used?**
27

28 (a) Install, calibrate, maintain, and operate a continuous opacity monitoring system.
29

30 (b) Install, evaluate, and operate each continuous opacity monitoring system according to 40
31 CFR§60.13.
32

33 (c) Complete an initial evaluation of your continuous opacity monitoring system according to
34 Performance Specification 1 in 40 CFR 60, Appendix B. Complete the evaluation by 180
35 days after your final compliance date.
36

37 (d) Complete each annual evaluation of your continuous opacity monitoring system no more
38 than 13 months after the previous evaluation.
39

40 (e) Use tests conducted according to EPA Reference Method 9 in 40 CFR 60, Appendix A,
41 and as specified in §60.1790 below, to determine compliance with the opacity limit in Table

1 2 or 4 in Appendix A of this Plan. The data obtained from your continuous opacity
2 monitoring system are not used to determine compliance with the opacity limit.
3

4 **§60.1765 What additional requirements must I meet for the operation of my continuous**
5 **emission monitoring systems and continuous opacity monitoring system?**
6

7 Use the required span values and applicable performance specifications in Table 8 in
8 Appendix A of this Plan.
9

10 **§60.1770 What must I do if any of my continuous emission monitoring systems are**
11 **temporarily unavailable to meet the data collection requirements?**
12

13 Refer to Table 8 in Appendix A of this Plan. It shows alternate methods for collecting data
14 when systems malfunction or when repairs, calibration checks, or zero and span checks keep you
15 from collecting the minimum amount of data.
16

17
18 **IX. STACK TESTING**

19
20 **§60.1775 What types of stack tests must I conduct?**
21

22 Conduct initial and annual stack tests to measure the emission levels of dioxins/furans,
23 cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.
24

25 **§60.1780 How are the stack test data used?**
26

27 You must use results of stack tests for dioxins/furans, cadmium, lead, mercury, particulate
28 matter, opacity, hydrogen chloride, and fugitive ash to demonstrate compliance with the
29 applicable emission limits in the Tables of this Plan. To demonstrate compliance for carbon
30 monoxide, nitrogen oxides, and sulfur dioxide, see 40 CFR 60.1725.
31

32 **§60.1785 What schedule must I follow for the stack testing?**
33

34 (a) Conduct initial stack tests for the pollutants listed in 40 CFR 60.1775 by 180 days after
35 your final compliance date.
36

37 (b) Conduct annual stack tests for the same pollutants after the initial stack test. Conduct
38 each annual stack test no later than 13 months after the previous stack test.
39

40
41 **§60.1790 What test methods must I use to stack test?**
42

1 (a) Follow Table 8 in Appendix A of this Plan to establish the sampling location and to
2 determine pollutant concentrations, number of traverse points, individual test methods, and
3 other specific testing requirements for the different pollutants.
4

5 (b) Make sure that stack tests for all the pollutants consist of at least three test runs, as
6 specified in 40 CFR §60.8. Use the average of the pollutant emission concentrations from
7 the three test runs to determine compliance with the applicable emission limits in Tables 2
8 and 4 of this Plan.
9

10 (c) Obtain an oxygen (or carbon dioxide) measurement at the same time as your pollutant
11 measurements to determine diluent gas levels, as specified in §60.1720 above.
12

13 (d) Use the equations in §60.1935(a) below to calculate emission levels at 7 percent oxygen
14 (or an equivalent carbon dioxide basis), the percent reduction in potential hydrogen chloride
15 emissions, and the reduction efficiency for mercury emissions. See the individual test
16 methods in Table 6 in Appendix A of this Plan for other required equations.
17

18 (e) You can apply to the Executive Secretary for approval under 40 CFR 60.8(b) to use a
19 reference method with minor changes in methodology, use an equivalent method, use an
20 alternative method the results of which the Executive Secretary has determined are adequate
21 for demonstrating compliance, waive the requirement for a performance test because you
22 have demonstrated by other means that you are in compliance, or use a shorter sampling time
23 or smaller sampling volume.
24

25 **§60.1795 May I conduct stack testing less often?** 26

27 (a) You may test less often if you own or operate a Class II municipal waste combustion unit
28 and if all stack tests for a given pollutant over 3 consecutive years show you comply with the
29 emission limit. In that case, you are not required to conduct a stack test for that pollutant for
30 the next 2 years. However, you must conduct another stack test within 36 months of the
31 anniversary date of the third consecutive stack test that shows you comply with the emission
32 limit. Thereafter, you must perform stack tests every 3rd year but no later than 36 months
33 following the previous stack tests. If a stack test shows noncompliance with an emission
34 limit, you must conduct annual stack tests for that pollutant until all stack tests over 3
35 consecutive years show compliance with the emission limit for that pollutant. The provision
36 applies to all pollutants subject to stack testing requirements: dioxins/furans, cadmium, lead,
37 mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash.
38

39 (b) You can test less often for dioxins/furans emissions if you own or operate a municipal
40 waste combustion plant that meets two conditions. First, you have multiple municipal waste
41 combustion units onsite that are subject to this Plan. Second, all those municipal waste
42 combustion units have demonstrated levels of dioxins/furans emissions less than or equal to

1 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms per
2 dry standard cubic meter (total mass) for Class II units, for 2 consecutive years. In that case,
3 you may choose to conduct annual stack tests on only one municipal waste combustion unit
4 per year at your plant. The provision only applies to stack testing for dioxins/furans
5 emissions.

6
7 (1) Conduct the stack test no more than 13 months following a stack test on any
8 municipal waste combustion unit subject to this Plan at your plant. Each year, test a
9 different municipal waste combustion unit subject to this Plan and test all municipal
10 waste combustion units subject to this Plan in a sequence that you determine. Once you
11 determine a testing sequence, it must not be changed without approval by the Executive
12 Secretary.

13
14 (2) If each annual stack test shows levels of dioxins/furans emissions less than or equal
15 to 15 nanograms per dry standard cubic meter (total mass) for Class I units, or 30
16 nanograms per dry standard cubic meter (total mass) for Class II units, you may continue
17 stack tests on only one municipal waste combustion unit subject to this Plan per year.

18
19 (3) If any annual stack test indicates levels of dioxins/furans emissions greater than 15
20 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms
21 per dry standard cubic meter (total mass) for Class II units, conduct subsequent annual
22 stack tests on all municipal waste combustion units subject to this Plan at your plant.
23 You may return to testing one municipal waste combustion unit subject to this Plan per
24 year if you can demonstrate dioxins/furans emissions levels less than or equal to 15
25 nanograms per dry standard cubic meter (total mass) for Class I units, or 30 nanograms
26 per dry standard cubic meter (total mass) for Class II units, for all municipal waste
27 combustion units at your plant subject to this Plan for 2 consecutive years.

28
29 **§60.1800 May I deviate from the 13-month testing schedule if unforeseen circumstances**
30 **arise?**

31
32 You may not deviate from the 13-month testing schedules specified in §§60.1785(b) and
33 60.1795(b)(1) above, unless you apply to the Executive Secretary for an alternative schedule, and
34 the Executive Secretary approves your request for alternate scheduling prior to the date on which
35 you would otherwise have been required to conduct the next stack test.

36
37
38 **X. OTHER MONITORING REQUIREMENTS**

39
40 **§60.1805 Must I meet other requirements for continuous monitoring?**

41
42 You must also monitor three operating parameters:

- 1 (a) Load level of each municipal waste combustion unit.
2
3 (b) Temperature of flue gases at the inlet of your particulate matter air pollution control
4 device.
5
6 (c) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury
7 emissions.
8

9 **§60.1810 How do I monitor the load of my municipal waste combustion unit?**
10

11 (a) If your municipal waste combustion unit generates steam, you must install, calibrate,
12 maintain, and operate a steam flow-meter or a feed water flowmeter and meet five
13 requirements:
14

15 (1) Continuously measure and record the measurements of steam (or feed water) in
16 kilograms (or pounds) per hour.
17

18 (2) Calculate your steam (or feed water) flow in 4-hour block averages.
19

20 (3) Calculate the steam (or feed water) flow rate using the method in "American Society
21 of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units,
22 Power Test Code 4.1--1964 (R1991)," section 4 (incorporated by reference in 40 CFR
23 §60.17).
24

25 (4) Design, construct, install, calibrate, and use nozzles or orifices for flow rate
26 measurements, using the recommendations in "American Society of Mechanical
27 Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of
28 Fluid Meters," 6th Edition (1971), chapter 4 (incorporated by reference in 40 CFR
29 §60.17).
30

31 (5) Before each dioxins/furans stack test, or at least once a year, calibrate all signal
32 conversion elements associated with steam (or feed water) flow measurements according
33 to the manufacturer instructions.
34

35 (b) If your municipal waste combustion units do not generate steam, or, if your municipal
36 waste combustion units have shared steam systems and steam load cannot be estimated per
37 unit, you must determine, to the satisfaction of the Executive Secretary, one or more
38 operating parameters that can be used to continuously estimate load level (for example, the
39 feed rate of municipal solid waste or refuse-derived fuel). You must continuously monitor
40 the selected parameters.
41

1 **§60.1815 How do I monitor the temperature of flue gases at the inlet of my particulate**
2 **matter control device?**

3
4 You must install, calibrate, maintain, and operate a device to continuously measure the
5 temperature of the flue gas stream at the inlet of each particulate matter control device.
6

7 **§60.1820 How do I monitor the injection rate of activated carbon?**
8

9 If your municipal waste combustion unit uses activated carbon to control dioxins/furans or
10 mercury emissions, you must meet three requirements:
11

12 (a) Select a carbon injection system operating parameter that can be used to calculate carbon
13 feed rate (for example, screw feeder speed).
14

15 (b) During each dioxins/furans and mercury stack test, determine the average carbon feed
16 rate in kilograms (or pounds) per hour. Also, determine the average operating parameter level
17 that correlates to the carbon feed rate. Establish a relationship between the operating parameter
18 and the carbon feed rate in order to calculate the carbon feed rate based on the operating
19 parameter level.
20

21 (c) Continuously monitor the selected operating parameter during all periods when the
22 municipal waste combustion unit is operating and combusting waste and calculate the 8-hour
23 block average carbon feed rate in kilograms (or pounds) per hour, based on the selected operating
24 parameter. When calculating the 8-hour block average, do two things:
25

26 (1) Exclude hours when the municipal waste combustion unit is not operating.
27

28 (2) Include hours when the municipal waste combustion unit is operating but the carbon
29 feed system is not working correctly.
30

31 **§60.1825 What is the minimum amount of monitoring data I must collect with my**
32 **continuous parameter monitoring systems and is the data collection requirement**
33 **enforceable?**
34

35 (a) Where continuous parameter monitoring systems are used, obtain 1-hour arithmetic
36 averages for three parameters:
37

38 (1) Load level of the municipal waste combustion unit.
39

40 (2) Temperature of the flue gases at the inlet of your particulate matter control device.
41

1 (3) Carbon feed rate if activated carbon is used to control dioxins/furans or mercury
2 emissions.

3
4 (b) Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic
5 average.

6
7 (c) Obtain valid 1-hour averages for at least 75 percent of the operating hours per day for 90
8 percent of the operating days per calendar quarter. An operating day is any day the unit
9 combusts any municipal solid waste or refuse-derived fuel.

10
11 (d) If you do not obtain the minimum data required in paragraphs (a) through (c) of this
12 section, you are in violation of the data collection requirement, and you must notify the
13 Executive Secretary according to §60.1885(e) below.

14 15 16 **XI. RECORD-KEEPING**

17 18 **§60.1830 What records must I keep?**

19 You must keep four types of records:

- 20
21
22 (a) Operator training and certification.
23 (b) Stack tests.
24 (c) Continuously monitored pollutants and parameters.
25 (d) Carbon feed rate.
26

27 **§60.1835 Where must I keep my records and for how long?**

- 28
29 (a) Keep all records onsite in paper copy or electronic format unless the Executive Secretary
30 approves another format.
31
32 (b) Keep all records on each municipal waste combustion unit for at least 5 years.
33
34 (c) Make all records available for submittal to the Executive Secretary, or for onsite review
35 by an inspector.
36

37 **§60.1840 What records must I keep for operator training and certification?**

38
39 You must keep records of six items:

- 40
41 (a) Records of provisional certifications. Include three items:
42

1 (1) For your municipal waste combustion plant, names of the chief facility operator, shift
2 supervisors, and control room operators who are provisionally certified by the American
3 Society of Mechanical Engineers or an equivalent State-approved certification program.
4

5 (2) Dates of the initial provisional certifications.
6

7 (3) Documentation showing current provisional certifications.
8

9 (b) Records of full certifications. Include three items:
10

11 (1) For your municipal waste combustion plant, names of the chief facility operator, shift
12 supervisors, and control room operators who are fully certified by the American Society
13 of Mechanical Engineers or an equivalent State-approved certification program.
14

15 (2) Dates of initial and renewal full certifications.
16

17 (3) Documentation showing current full certifications.
18

19 (c) Records showing completion of the operator training course. Include three items:
20

21 (1) For your municipal waste combustion plant, names of the chief facility operator, shift
22 supervisors, and control room operators who have completed the EPA or State municipal
23 waste combustion operator training course.
24

25 (2) Dates of completion of the operator training course.
26

27 (3) Documentation showing completion of operator training course.
28

29 (d) Records of reviews for plant-specific operating manuals. Include three items:
30

31 (1) Names of persons who have reviewed the operating manual.
32

33 (2) Date of the initial review.
34

35 (3) Dates of subsequent annual reviews.
36

37 (e) Records of when a certified operator is temporarily offsite. Include two main items:
38

39 (1) If the certified chief facility operator and certified shift supervisor are offsite for more
40 than 12 hours, but for 2 weeks or less, and no other certified operator is onsite, record the
dates that the certified chief facility operator and certified shift supervisor were offsite.

1 (2) When all certified chief facility operators and certified shift supervisors are offsite
2 for more than 2 weeks and no other certified operator is onsite, keep records of four
3 items:

- 4
5 (i) Your notice that all certified persons are offsite.
6 (ii) The conditions that cause those people to be offsite.
7 (iii) The corrective actions you are taking to ensure a certified chief facility operator
8 or certified shift supervisor is onsite.
9 (iv) Copies of the written reports submitted every 4 weeks that summarize the actions
10 taken to ensure that a certified chief facility operator or certified shift supervisor will
11 be onsite.

12
13 (f) Records of calendar dates. Include the calendar date on each record.
14

15 **§60.1845 What records must I keep for stack tests?**

16 For stack tests required under §60.1775 above, you must keep records of four items:

17
18 (a) The results of the stack tests for eight pollutants or parameters recorded in the appropriate
19 units of measure specified in Table 2 or 4 in Appendix A of this Plan:
20

- 21
22 (1) Dioxins/furans.
23 (2) Cadmium.
24 (3) Lead.
25 (4) Mercury.
26 (5) Opacity.
27 (6) Particulate matter.
28 (7) Hydrogen chloride.
29 (8) Fugitive ash.

30
31 (b) Test reports including supporting calculations that document the results of all stack tests.
32

33 (c) The maximum demonstrated load of your municipal waste combustion units and
34 maximum temperature at the inlet of your particulate matter control device during all stack
35 tests for dioxins/furans emissions.
36

37 (d) The calendar date of each record.
38

39 **§60.1850 What records must I keep for continuously monitored pollutants or parameters?**

40 You must keep records of eight items.
41
42

1 (a) Records of monitoring data. Document six parameters measured using continuous
2 monitoring systems:

- 3
4 (1) All 6-minute average levels of opacity.
5 (2) All 1-hour average concentrations of sulfur dioxide emissions.
6 (3) For Class I municipal waste combustion units only, all 1-hour average concentrations
7 of nitrogen oxides emissions.
8 (4) All 1-hour average concentrations of carbon monoxide emissions.
9 (5) All 1-hour average load levels of your municipal waste combustion unit.
10 (6) All 1-hour average flue gas temperatures at the inlet of the particulate matter control
11 device.

12
13 (b) Records of average concentrations and percent reductions. Document five parameters:

- 14
15 (1) All 24-hour daily block geometric average concentrations of sulfur dioxide emissions
16 or average percent reductions of sulfur dioxide emissions.
17
18 (2) For Class I municipal waste combustion units only, all 24-hour daily arithmetic
19 average concentrations of nitrogen oxides emissions.
20
21 (3) All 4-hour block or 24-hour daily block arithmetic average concentrations of carbon
22 monoxide emissions.
23
24 (4) All 4-hour block arithmetic average load levels of your municipal waste combustion
25 unit.
26
27 (5) All 4-hour block arithmetic average flue gas temperatures at the inlet of the
28 particulate matter control device.

29
30 (c) Records of exceedances. Document three items:

- 31
32 (1) Calendar dates whenever any of the five pollutant or parameter levels recorded in
33 paragraph (b) of this section or the opacity level recorded in paragraph (a)(1) of this
34 section did not meet the emission limits or operating levels specified in this Plan.
35
36 (2) Reasons you exceeded the applicable emission limits or operating levels.
37
38 (3) Corrective actions you took, or are taking, to meet the emission limits or operating
39 levels.

40
41 (d) Records of minimum data. Document three items:
42

1 (1) Calendar dates for which you did not collect the minimum amount of data required
2 under §§60.1750 and 60.1825 above. Record those dates for five types of pollutants and
3 parameters:

- 4
5 (i) Sulfur dioxide emissions.
6 (ii) For Class I municipal waste combustion units only, nitrogen oxides emissions.
7 (iii) Carbon monoxide emissions.
8 (iv) Load levels of your municipal waste combustion unit.
9 (v) Temperatures of the flue gases at the inlet of the particulate matter control device.

10
11 (2) Reasons you did not collect the minimum data.

12
13 (3) Corrective actions you took or are taking to obtain the required amount of data.

14
15 (e) Records of exclusions. Document each time you have excluded data from your
16 calculation of averages for any of the following five pollutants or parameters and the reasons
17 the data were excluded:

- 18
19 (1) Sulfur dioxide emissions.
20 (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
21 (3) Carbon monoxide emissions.
22 (4) Load levels of your municipal waste combustion unit.
23 (5) Temperatures of the flue gases at the inlet of the particulate matter control device.

24
25 (f) Records of drift and accuracy. Document the results of your daily drift tests and quarterly
26 accuracy determinations according to Procedure 1 of appendix F of 40 CFR Part 60. Keep
27 those records for the sulfur dioxide, nitrogen oxides (Class I municipal waste combustion
28 units only), and carbon monoxide continuous emissions monitoring systems.

29
30 (g) Records of the relationship between oxygen and carbon dioxide. If you choose to
31 monitor carbon dioxide instead of oxygen as a diluent gas, document the relationship
32 between oxygen and carbon dioxide, as specified in §60.1745 above.

33
34 (h) Records of calendar dates. Include the calendar date on each record.

35
36 **§60.1855 What records must I keep for municipal waste combustion units that use**
37 **activated carbon?**

38
39 For municipal waste combustion units that use activated carbon to control dioxins/furans or
40 mercury emissions, you must keep records of five items:

- 41
42 (a) Records of average carbon feed rate. Document five items:

1 (1) Average carbon feed rate in kilograms (or pounds) per hour during all stack tests for
2 dioxins/furans and mercury emissions. Include supporting calculations in the records.

3 (2) For the operating parameter chosen to monitor carbon feed rate, average operating
4 level during all stack tests for dioxins/furans and mercury emissions. Include supporting
5 data that document the relationship between the operating parameter and the carbon feed
6 rate.
7

8 (3) All 8-hour block average carbon feed rates in kilograms (or pounds) per hour
9 calculated from the monitored operating parameter.
10

11 (4) Total carbon purchased and delivered to the municipal waste combustion plant for
12 each calendar quarter. If you choose to evaluate total carbon purchased and delivered on
13 a municipal waste combustion unit basis, record the total carbon purchased and delivered
14 for each individual municipal waste combustion unit at your plant. Include supporting
15 documentation.
16

17 (5) Required quarterly usage of carbon for the municipal waste combustion plant,
18 calculated using equation 4 or 5 in §60.1935(f) below. If you choose to evaluate required
19 quarterly usage for carbon on a municipal waste combustion unit basis, record the
20 required quarterly usage for each municipal waste combustion unit at your plant. Include
21 supporting calculations.
22

23 (b) Records of low carbon feed rates. Document three items:
24

25 (1) The calendar dates when the average carbon feed rate over an 8-hour block was less
26 than the average carbon feed rates determined during the most recent stack test for
27 dioxins/furans or mercury emissions (whichever has a higher feed rate).
28

29 (2) Reasons for the low carbon feed rates.
30

31 (3) Corrective actions you took or are taking to meet the 8-hour average carbon feed rate
32 requirement.
33

34 (c) Records of minimum carbon feed rate data. Document three items:
35

36 (1) Calendar dates for which you did not collect the minimum amount of carbon feed rate
37 data required under §60.1825 above.
38

39 (2) Reasons you did not collect the minimum data.
40

41 (3) Corrective actions you took or are taking to get the required amount of data.
42

1
2 (d) Records of exclusions. Document each time you have excluded data from your
3 calculation of average carbon feed rates and the reasons the data were excluded.
4

5 (e) Records of calendar dates. Include the calendar date on each record.
6
7

8 **XII. REPORTING**

9 **§60.1860 What reports must I submit and in what form?**

10
11 (a) Submit an initial report and annual reports, plus
12 semiannual reports for any emission or parameter level that does not meet the limits specified
13 in this Plan.
14

15
16 (b) Submit all reports on paper, postmarked on or before the submittal dates in §§60.1870,
17 60.1880, and 60.1895 below. If the Executive Secretary agrees, you may submit electronic
18 reports.
19

20 (c) Keep a copy of all reports required by §§60.1875, 60.1885, and 60.1900 below onsite for
21 5 years.
22

23 **§60.1865 What are the appropriate units of measurement for reporting my data?**

24
25 See Tables 2, 3, 4 and 5 in Appendix A of this Plan for appropriate units of measurement.
26

27 **§60.1870 When must I submit the initial report?**

28
29 As specified in 40 CFR 60.7(c), submit your initial report by 180 days after your final
30 compliance date.
31

32 **§60.1875 What must I include in my initial report?**

33
34 You must include seven items:
35

36 (a) The emission levels measured on the date of the initial evaluation of your continuous
37 emission monitoring systems for all of the following five pollutants or parameters as recorded
38 in accordance with §60.1850(b) above.
39

40 (1) The 24-hour daily geometric average concentration of sulfur dioxide emissions or the
41 24-hour daily geometric percent reduction of sulfur dioxide emissions.
42

1 (2) For Class I municipal waste combustion units only, the 24-hour daily arithmetic
2 average concentration of nitrogen oxides emissions.

3
4 (3) The 4-hour block or 24-hour daily arithmetic average concentration of carbon
5 monoxide emissions.

6 (4) The 4-hour block arithmetic average load level of your municipal waste combustion
7 unit.

8 (5) The 4-hour block arithmetic average flue gas temperature at the inlet of the
9 particulate matter control device.

10
11 (b) The results of the initial stack tests for eight pollutants or parameters (use appropriate
12 units as specified in Table 2 or 4 in Appendix A of this Plan):

13
14 (1) Dioxins/furans.

15 (2) Cadmium.

16 (3) Lead.

17 (4) Mercury.

18 (5) Opacity.

19 (6) Particulate matter.

20 (7) Hydrogen chloride.

21 (8) Fugitive ash.

22
23 (c) The test report that documents the initial stack tests including supporting calculations.

24
25 (d) The initial performance evaluation of your continuous emissions monitoring systems.
26 Use the applicable performance specifications in appendix B of 40 CFR Part 60 in
27 conducting the evaluation.

28
29 (e) The maximum demonstrated load of your municipal waste combustion unit and the
30 maximum demonstrated temperature of the flue gases at the inlet of the particulate matter
31 control device. Use values established during your initial stack test for dioxins/furans
32 emissions and include supporting calculations.

33
34 (f) If your municipal waste combustion unit uses activated carbon to control dioxins/furans
35 or mercury emissions, the average carbon feed rates that you recorded during the initial stack
36 tests for dioxins/furans and mercury emissions. Include supporting calculations as specified
37 in §60.1855(a)(1) and (2) above.

38
39 (g) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas,
40 documentation of the relationship between oxygen and carbon dioxide, as specified in
41 §60.1745 above.
42

1 **§60.1880 When must I submit the annual report?**
2

3 Submit the annual report no later than February 1 of each year that follows the calendar year
4 in which you collected the data. If you have an operating permit for any unit under title V of the
5 CAA, the permit may require you to submit semiannual reports. Parts 70 and 71 of this chapter
6 contain program requirements for permits.
7

8 **§60.1885 What must I include in my annual report?**
9

10 Summarize data collected for all pollutants and parameters regulated under this Plan. Your
11 summary must include twelve items:
12

13 (a) The results of the annual stack test, using appropriate units, for eight pollutants, as
14 recorded under §60.1845(a) above:
15

- 16 (1) Dioxins/furans.
- 17 (2) Cadmium.
- 18 (3) Lead
- 19 (4) Mercury.
- 20 (5) Opacity.
- 21 (6) Particulate matter.
- 22 (7) Hydrogen chloride.
- 23 (8) Fugitive ash.

24
25 (b) A list of the highest average levels recorded, in the appropriate units. List those values
26 for five pollutants or parameters:
27

- 28 (1) Sulfur dioxide emissions.
- 29 (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.
- 30 (3) Carbon monoxide emissions.
- 31 (4) Load level of the municipal waste combustion unit.
- 32 (5) Temperature of the flue gases at the inlet of the particulate matter air pollution
33 control device (4-hour block average).
34

35 (c) The highest 6-minute opacity level measured. Base the value on all 6-minute average
36 opacity levels recorded by your continuous opacity monitoring system (§60.1850(a)(1)
37 above).
38

39 (d) For municipal waste combustion units that use activated carbon for controlling
40 dioxins/furans or mercury emissions, include four records:
41

1 (1) The average carbon feed rates recorded during the most recent dioxins/furans and
2 mercury stack tests.

3
4 (2) The lowest 8-hour block average carbon feed rate recorded during the year.

5
6 (3) The total carbon purchased and delivered to the municipal waste combustion plant for
7 each calendar quarter. If you choose to evaluate total carbon purchased and delivered on
8 a municipal waste combustion unit basis, record the total carbon purchased and delivered
9 for each individual municipal waste combustion unit at your plant.

10
11 (4) The required quarterly carbon usage of your municipal waste combustion plant
12 calculated using equation 4 or 5 in §60.1935(f) below. If you choose to evaluate required
13 quarterly usage for carbon on a municipal waste combustion unit basis, record the
14 required quarterly usage for each municipal waste combustion unit at your plant.

15
16 (e) The total number of days that you did not obtain the minimum number of hours of data
17 for six pollutants or parameters. Include the reasons you did not obtain the data and
18 corrective actions that you have taken to obtain the data in the future. Include data on:

19
20 (1) Sulfur dioxide emissions.

21
22 (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.

23
24 (3) Carbon monoxide emissions.

25
26 (4) Load level of the municipal waste combustion unit.

27
28 (5) Temperature of the flue gases at the inlet of the particulate matter air pollution
29 control device.

30
31 (6) Carbon feed rate.

32
33 (f) The number of hours you have excluded data from the calculation of average levels
34 (include the reasons for excluding it). Include data for six pollutants or parameters:

35
36 (1) Sulfur dioxide emissions.

37
38 (2) For Class I municipal waste combustion units only, nitrogen oxides emissions.

39
40 (3) Carbon monoxide emissions.

41
42 (4) Load level of the municipal waste combustion unit.

1
2 (5) Temperature of the flue gases at the inlet of the particulate matter air pollution
3 control device.

4
5 (6) Carbon feed rate.

6
7 (g) A notice of your intent to begin a reduced stack testing schedule for dioxins/furans
8 emissions during the following calendar year if you are eligible for alternative scheduling
9 (§60.1795(a) or (b) above).

10
11 (h) A notice of your intent to begin a reduced stack testing schedule for other pollutants
12 during the following calendar year if you are eligible for alternative scheduling (§60.1795(a)
13 above).

14
15 (i) A summary of any emission or parameter level that did not meet the limits specified in
16 this Plan.

17
18 (j) A summary of the data in paragraphs (a) through (d) of this section from the year
19 preceding the reporting year which gives the Executive Secretary a summary of the
20 performance of the municipal waste combustion unit over a 2-year period.

21
22 (k) If you choose to monitor carbon dioxide instead of oxygen as a diluent gas,
23 documentation of the relationship between oxygen and carbon dioxide, as specified in
24 §60.1745 above.

25
26 (l) Documentation of periods when all certified chief facility operators and certified shift
27 supervisors are offsite for more than 12 hours.

28
29 **§60.1890 What must I do if I am out of compliance with the requirements of this Plan?**

30
31 You must submit a semiannual report on any recorded emission or parameter level that does
32 not meet the requirements specified in this Plan.

33
34 **§60.1895 If a semiannual report is required, when must I submit it?**

35
36 (a) For data collected during the first half of a calendar year, submit your semiannual report
37 by August 1 of that year.

38
39 (b) For data you collected during the second half of the calendar year, submit your
40 semiannual report by February 1 of the following year.

41
42 **§60.1900 What must I include in the semiannual out-of-compliance reports?**

1 You must include three items in the semiannual report:
2

3 (a) For any of the following six pollutants or parameters that exceeded the limits specified in
4 this Plan, include the calendar date they exceeded the limits, the averaged and recorded data
5 for that date, the reasons for exceeding the limits, and your corrective actions:
6

7 (1) Concentration or percent reduction of sulfur dioxide emissions.

8
9 (2) For Class I municipal waste combustion units only, concentration of nitrogen oxides
10 emissions.

11
12 (3) Concentration of carbon monoxide emissions.

13
14 (4) Load level of your municipal waste combustion unit.

15
16 (5) Temperature of the flue gases at the inlet of your particulate matter air pollution control
17 device.

18
19 (6) Average 6-minute opacity level. The data obtained from your continuous opacity monitoring
20 system are not used to determine compliance with the limit on opacity emissions.
21

22 (b) If the results of your annual stack tests (as recorded in §60.1845(a) above) show emissions above
23 the limits specified in Table 2 or 4 in Appendix A of this Plan as applicable for dioxins/furans,
24 cadmium, lead, mercury, particulate matter, opacity, hydrogen chloride, and fugitive ash, include a
25 copy of the test report that documents the emission levels and your corrective actions.
26

27 (c) For municipal waste combustion units that apply activated carbon to control dioxins/furans or
28 mercury emissions, include two items:
29

30 (1) Documentation of all dates when the 8-hour block average carbon feed rate (calculated from
31 the carbon injection system operating parameter) is less than the highest carbon feed rate
32 established during the most recent mercury and dioxins/furans stack test (as specified in
33 §60.1855(a)(1) above). Include four items:
34

35 (i) Eight-hour average carbon feed rate.

36 (ii) Reasons for occurrences of low carbon feed rates.

37 (iii) The corrective actions you have taken to meet the carbon feed rate requirement.

38 (iv) The calendar date.
39

40 (2) Documentation of each quarter when total carbon purchased and delivered to the municipal
41 waste combustion plant is less than the total required quarterly usage of carbon. If you choose to
42 evaluate total carbon purchased and delivered on a municipal waste combustion unit basis, record the
43 total carbon purchased and delivered for each individual municipal waste combustion unit at your
44 plant. Include five items:

- 1
2 (i) Amount of carbon purchased and delivered to the plant.
3 (ii) Required quarterly usage of carbon.
4 (iii) Reasons for not meeting the required quarterly usage of carbon.
5 (iv) The corrective actions you have taken to meet the required quarterly usage of carbon.
6 (v) The calendar date.
7

8 **§60.1905 Can reporting dates be changed?**
9

- 10 (a) If the Executive Secretary agrees, you may change the semiannual or annual reporting dates.
11 (b) See 40 CFR 60.19(c) for procedures to seek approval to change your reporting date.
12
13

Draft

1
2
3
4
5

Appendix A

6
7

Table 1. Compliance Schedules and Increments of Progress

Affected units	Increment 1 (Submit final control plan)	Increment 2 (Award contracts)	Increment 3 (Begin onsite construction)	Increment 4 (Complete onsite construction)	Increment 5 (Final compliance)
All Class I Units					
A. Wasatch Energy Systems		_____	_____	[December 1, 2001] January 6, 2002	[September 22, 2002] October 6, 2002
No other Class I and no Class II Units have been identified.	Not Applicable	Not applicable	Not applicable	Not applicable	One year after EPA's approval of the Plan

Table 2. Emission Limits for Existing Class I Small Municipal Waste Combustion Units^a

For the following pollutants	You must meet the following emission limits ^b	Using the following averaging times	Determine Compliance by the following methods
1. Organic substance			
Dioxins/Furans (total mass basis)	30 nanograms per dry standard cubic meter for municipal waste combustion units that do not employ an electrostatic precipitator-based emission control system -or- 60 nanograms per dry standard cubic meter for municipal waste combustion units that employ an electrostatic precipitator-based emission control system	3-run average (minimum run duration is 4 hours)	Stack test
2. Metals			
Cadmium	0.040 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
Lead	0.490 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
Mercury	0.080 milligrams per dry standard cubic meter -or- 85 percent reduction of potential mercury emissions	3-run average (run duration specified in test method)	Stack test
Opacity	10 percent	Thirty 6-minute averages	Stack test
Particulate Matter	27 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
3. Acid Gases			
Hydrogen Chloride	31 parts per million by dry volume -or- 95 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test
Sulfur Dioxide	31 parts per million by dry volume -or- 75 percent reduction of potential sulfur dioxide emissions	24-hour daily block geometric average concentration -or- percent reduction	Continuous emission monitoring system
4. Other			
Fugitive Ash	Visible emissions for no more than 5 percent of hourly observation period	Three 1-hour observation periods	Visible emission test

^aClass I units mean small municipal waste combustion units subject to this Plan that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See §60.1940 for definitions.

^bAll emission limits (except for opacity) are measured at 7 percent oxygen.

1 **Table 3. Class I Nitrogen Oxides Emission Limits for Existing Small Municipal**
 2 **Waste Combustion Units^{a,b,c}**
 3

Municipal Waste Combustion Technology		Limits for Class I Municipal Waste Combustion Units
1.	Mass burn water-wall	200
2.	Mass burn rotary water-wall	170
3.	Refuse-derived fuel	250
4.	Fluidized bed	220
5.	Mass burn refractory	350
6.	Modular excess air	190
7.	Modular starved air	380

13 ^a Class I units mean small municipal waste combustion units subject to this subpart that are located at municipal
 14 waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal
 15 solid waste. See §60.1940 for definitions.

16 ^b Nitrogen oxides limits are corrected to 7 percent oxygen, dry basis.

17 ^c All limits are 24-hour daily block arithmetic average concentration. Compliance is determined for Class I units by
 18 continuous emission monitoring systems.

19
 20 **Table 4. Class II Emission Limits for Existing Small Municipal Waste Combustion Units^a**
 21

For the following pollutants	You must meet the following emission limits ^b	Using the following averaging times	And determine compliance by the following methods
1. Organics			
Dioxins/Furans (total mass basis)	125 nanograms per dry standard cubic meter	3-run average (minimum run duration is 4 hours)	Stack test
2. Metals			
Cadmium	0.10 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
Lead	1.6 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test

1	Mercury	0.080 milligrams per dry standard cubic meter -or- 85 percent reduction of potential mercury emissions	3-run average (run duration specified in test method)	Stack test
2	Opacity	10 percent	Thirty 6-minute averages	Stack test
3	Particulate Matter	70 milligrams per dry standard cubic meter	3-run average (run duration specified in test method)	Stack test
4	3. Acid Gases			
5	Hydrogen Chloride	250 parts per million by volume -or- 50 percent reduction of potential hydrogen chloride emissions	3-run average (minimum run duration is 1 hour)	Stack test
6	Nitrogen Oxides	500 parts per million by dry volume	See footnote c	See footnote c
7	Sulfur Dioxide	77 parts per million by dry volume -or- 50 percent reduction of potential sulfur dioxides emissions	24-hour daily block geometric average concentration -or- percent reduction	Continuous emission monitoring system
8	4. Other			
9	Fugitive Ash	Visible emissions for no more than 5 percent of hourly observation period	Three 1-hour observation periods	Visible emission test

^a Class II units mean all small municipal combustion units subject to this subpart that are located at municipal waste combustion plants with aggregate plant combustion capacity less than or equal to 250 tons per day of municipal solid waste. See §60.1940 for definitions.

^b All emission limits (except for opacity) are measured at 7 percent oxygen.

^c No monitoring, testing, record-keeping or reporting is required to demonstrate compliance with the nitrogen oxides limit for Class II units.

Table 5. Emission Limits for Existing Small Municipal Waste Combustion Units

For the following municipal waste combustion units	You must meet the following carbon monoxide limits ^a	Using the following averaging times ^b
--	---	--

1	1. Fluidized bed	100 parts per million by dry volume	4-hour
2	2. Fluidized bed, mixed	200 parts per million by dry volume	24-hour ^c
3	fuel, (wood/refuse-		
4	derived fuel)		
5	3. Mass burn rotary	100 parts per million by dry volume	4-hour
6	refractory		
7	4. Mass burn rotary	250 parts per million by dry volume	24-hour
8	waterwall		
9	5. Mass burn water-wall	100 parts per million by dry volume	4-hour
10	and refractory		
11	6. Mixed fuel-fired,	150 parts per million by dry volume	4-hour
12	(pulverized coal/refuse-		
13	derived fuel)		
14	7. Modular starved-air	50 parts per million by dry volume	4-hour
15	and excess air		
16	8. Spreader stoker, mixed	200 parts per million by dry volume	24-hour daily
17	fuel-fired (coal/refuse-		
18	derived fuel)		
19	9. Stoker, refuse-derived	200 parts per million by dry volume	24-hour daily
20	fuel		

a All emission limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.

b Block averages, arithmetic mean. See §60.1940 for definitions.

c 24-hour block average, geometric mean.

Table 6. Requirements for Validating Continuous Emission Monitoring Systems (CEMS)

For the following continuous emission monitoring systems	Use the following methods in appendix A of 40 CFR Part 60 to validate pollutant concentration levels	Use the following methods in appendix A of 40 CFR Part 60 to measure oxygen (or carbon dioxide)
1. Nitrogen Oxides (Class I units only) ^a	Method 7, 7A, 7B, 7C, 7D, or 7E	Method 3 or 3A
2. Sulfur Dioxide	Method 6 or 6C	Method 3 or 3A
3. Carbon Monoxide	Method 10, 10A, or 10B	Method 3 or 3A

^a Class I units mean small municipal waste combustion units subject to this Plan that are located at municipal waste combustion plants with an aggregate plant combustion capacity greater than 250 tons per day of municipal solid waste. See §60.1940 for definitions.

1 **Table 7. Requirements for Continuous Emission Monitoring Systems (CEMS)**
 2

For the following pollutants	Use the following span values for your CEMS	Use the following performance specifications in 40 CFR 60, Appendix B for your CEMS	If needed to meet minimum data requirements, use the following alternate methods in 40 CFR 60, Appendix A to collect data
3 1. Opacity	100 percent opacity	P.S. 1	Method 9
6 2. Nitrogen Oxides (Class I units only)	Control device outlet: 125 percent of the maximum expected hourly potential nitrogen oxides emissions of the municipal waste combustion unit	P.S. 2	Method 7E
8 3. Sulfur Dioxide	Inlet to control device: 125 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit Control device outlet: 50 percent of the maximum expected hourly potential sulfur dioxide emissions of the municipal waste combustion unit	P.S. 2	Method 6C
9 4. Carbon Monoxide	125 percent of the maximum expected hourly potential carbon monoxide emissions of the municipal waste combustion unit	P.S. 4A	Method 10 with alternative interference trap
10 5. Oxygen or Carbon Dioxide	25 percent oxygen or 25 percent carbon dioxide	P.S. 3	Method 3A or 3B

Table 8. Requirements for Stack Tests

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		To measure the following pollutants	Use the following methods in 40 CFR 60, Appendix A to determine the sampling location	Use the following methods in appendix A of 40 CFR Part 60 to measure pollutant concentration															
		1. Organics																	
		Dioxins/Furans	Method 1	Method 23 ^a															
		2. Metals																	
		Cadmium	Method 1	Method 29 ^a															
		Lead	Method 1	Method 29 ^a															
		Mercury	Method 1	Method 29 ^a															
		Opacity	Method 9	Method 9															
		Particulate Matter	Method 1	Method 5 or 29 ^a															
		3. Acid Gases ^b																	
		Hydrogen Chloride	Method 1	Method 26 or 26A ^a															
		4. Other ^b																	
		Fugitive Ash	Not applicable	Method 22 (visible emissions)															
		^a Must simultaneously measure oxygen (or carbon dioxide) using Method 3A or 3B in appendix A of 40 CFR Part 60 ^b Use CEMS to test sulfur dioxide, nitrogen oxide, and carbon monoxide. Stack tests are not required except for Appendix F quality assurance requirements.																	

1 **Appendix B.**

2 **EQUATIONS**

3 **§60.1935 What equations must I use?**

4
5
6
7 (a) Concentration correction to 7 percent oxygen. Correct any pollutant concentration to 7 percent
8 oxygen using equation 1 of this section:

9
10
$$C_{7\%} = C_{\text{unc}} * (13.9) * [1/(20.9 - \text{CO}_2)]$$
 (Eq.1)

11
12 Where:

13 $C_{7\%}$ =concentration corrected to 7 percent oxygen.

14 C_{unc} =uncorrected pollutant concentration.

15 CO_2 =concentration of oxygen

16
17 (percent).

18 (b) Percent reduction in potential mercury emissions. Calculate the percent reduction in potential
19 mercury emissions ($\%P_{\text{Hg}}$) using equation 2 of this section:

20
$$\%P_{\text{Hg}} = (E_i - E_o) * (100/E_i)$$
 (Eq.2)

21 Where:

22
23 $\%P_{\text{Hg}}$ = percent reduction of potential mercury emissions

24
25 E_i = mercury emission concentration as measured at the air pollution control device inlet, corrected to 7
26 percent oxygen, dry basis

27
28 E_o = mercury emission concentration as measured at the air pollution control device outlet, corrected to 7
29 percent oxygen, dry basis

30
31 (c) Percent reduction in potential hydrogen chloride emissions. Calculate the percent reduction in
32 potential hydrogen chloride emissions ($\%P_{\text{HCl}}$) using equation 3 of this section:

33
$$\%P_{\text{HCl}} = (E_i - E_o) * (100/E_i)$$
 (Eq.3)

34 Where:

35 $\%P_{\text{HCl}}$ = percent reduction of the potential hydrogen chloride emissions

36

1 E_i = hydrogen chloride emission concentration as measured at the air pollution control device inlet,
 2 corrected to 7 percent oxygen, dry basis

3
 4 E_o = hydrogen chloride emission concentration as measured at the air pollution control device outlet,
 5 corrected to 7 percent oxygen, dry basis

6
 7 (d) Capacity of a municipal waste combustion unit. For a municipal waste combustion unit that can
 8 operate continuously for 24-hour periods, calculate the municipal waste combustion unit capacity based
 9 on 24 hours of operation at the maximum charge rate. To determine the maximum charge rate, use one
 10 of two methods:

11
 12 (1) For municipal waste combustion units with a design based on heat input capacity, calculate
 13 the maximum charging rate based on the maximum heat input capacity and one of two heating values:

14
 15 (i) If your municipal waste combustion unit combusts refuse-derived fuel, use a heating
 16 value of 12,800 kilojoules per kilogram (5,500 British thermal units per pound).

17 (ii) If your municipal waste combustion unit combusts municipal solid waste, use a
 18 heating value of 10,500 kilojoules per kilogram (4,500 British thermal units per pound).

19
 20 (2) For municipal waste combustion units with a design not based on heat input capacity, use the
 21 maximum designed charging rate.

22
 23 (e) Capacity of a batch municipal waste combustion unit. Calculate the capacity of a batch municipal
 24 waste combustion unit as the maximum design amount of municipal solid waste they can charge per
 25 batch multiplied by the maximum number of batches they can process in 24 hours. Calculate the
 26 maximum number of batches by dividing 24 by the number of hours needed to process one batch.
 27 Retain fractional batches in the calculation. For example, if one batch requires 16 hours, the municipal
 28 waste combustion unit can combust 24/16, or 1.5 batches, in 24 hours.

29
 30 (f) Quarterly carbon usage. If you use activated carbon to comply with the dioxins/furans or mercury
 31 limits, calculate the required quarterly usage of carbon using equation 4 of this section for plant basis or
 32 equation 5 of this section for unit basis:

33
 34 (1) Plant basis.

$$35 \quad C = \sum_{i=1}^n f_i * h_i \quad \text{(Eq. 4)}$$

36
 37 Req
 38 uire

39
 40 d quarterly carbon usage for the plant in kilograms (or pounds).

41 f_i = required carbon feed rate for the municipal waste combustion unit in kilograms (or
 42 pounds) per hour. That is the average carbon feed rate during the most recent mercury or
 43 dioxins/furans stack tests (whichever has a higher feed rate).

1 h_i = number of hours the municipal waste combustion unit was in operation during the
2 calendar quarter (hours).

3 n = number of municipal waste combustion units, i , located at your plant.

4
5 (2) Unit basis.

6
7 $C = f * h$ (Eq.5)

8
9 Where:

10 C = required quarterly carbon usage for the unit in kilograms (or pounds).

11 f = required carbon feed rate for the municipal waste combustion unit in kilograms (or
12 pounds) per hour. That is the average carbon feed rate during the most recent mercury or
13 dioxins/furans stack tests (whichever has a higher feed rate).

14 h = number of hours the municipal waste combustion unit was in operation during the
15 calendar quarter (hours).
16
17

Draft

Appendix C

Facility Name: **Wasatch Energy System**
 Facility Address: 650 East Highway 193
 Layton, UT 84041
 County: Davis
 Phone number: 801-7761-5661
 FAX number: 801-771-6438
 Type of Incinerator: Mass burn refractory
 Incinerator rating: Class I
 Annual hours of operation: <16,300 for 2 units combined
 Annual waste burned: 125,000 tons per year

Wasatch Energy System's 2000 Emission Inventory (TPY)

Wasatch Energy System submitted its initial inventory on time, by April 15, 2001.

PM ₁₀	PM _{2.5}	SO _x	NO _x	VOC	CO	Comments
16.904	12.631	80.774	319.110	1.994	52.485	

The following emissions are estimated from stack test values. They are in units of pounds per year.

2, 3, 7, 8 tetra-chloro-dibenzo dioxin	0.000916
Ammonia	26,300
Antimony compounds	16.8
Arsenic compounds	5.1
Cadmium compounds	53.5
Chromium compounds	8.8
Cobalt compounds	1.4
Formaldehyde [CAS number 50,000]	248
HCl [CAS number 7647010]	394,000
HF [CAS number 7664393]	22,300
TEQ Dioxin	0.00631
Lead compounds	558
Mercury compounds	188
Manganese compounds	12.0
Nickel compounds	9.4
Poly-chlorinated dibenzo-dioxin/ furan	0.276
Selenium compounds	4.7
TRIPC 246	2.0



RECEIVED
AUG 17 2001
AIR QUALITY

August 16, 2001

Richard W. Sprott, Director
Utah Division Air Quality
150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820

RE: Utah Air Quality Board Consent Order

Dear Mr. Sprott:

I am enclosing two copies of the Addendum to Stipulation and Consent Order. Please keep one for your files and return a signed copy to me. Thank you for your attention to this matter.

If you have any questions, please do not hesitate to contact me at 771-5661 ext. 13.

Sincerely,

WASATCH ENERGY SYSTEMS

A handwritten signature in black ink, appearing to read "Nathan Rich", written over a horizontal line.

Nathan Rich, Executive Director

NBR:jlm
Enclosures



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor

Dianne R. Nielson, Ph.D.
Executive Director

Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000
(801) 536-4099 Fax
(801) 536-4414 T.D.D.
www.deq.state.ut.us Web

MEMORANDUM

TO: Air Quality Board DAQ-077-01

THROUGH: Richard W. Sprott, Executive Secretary

FROM: Rusty Ruby, New Source Review Section Manager
Lenore Epstein, DAQ Legal Counsel

DATE: August 27, 2001

SUBJECT: Addendum to Wasatch Energy Systems Stipulation and Consent Order

On March 27, 2000, the Air Quality Board and Wasatch Energy Systems (WES) entered into a Consent Order which, among other things, provided for an accelerated schedule for new pollution control equipment at the facility that would result in the installation and operation of the equipment in advance of the then-proposed federal guidelines. An Approval Order (AO) was issued in September of 2000 to implement the terms of the Consent Order. However, by its own terms, that AO does not become effective until October 6, 2002, and WES was to operate under its 1996 AO until that time.

Because WES has been able to perform the retrofit and installation of the new pollution control equipment earlier than contemplated by the Consent Order, an issue has arisen in which the start-up, shakedown and performance testing of the new pollution control equipment would require following the operating parameters and criteria of the 2000 AO rather than the 1996 AO, which is not technically allowed under WES's current permitting.

WES and DAQ staff agree that this was not the intent of either the Consent Order or the subsequent permit. Therefore, DAQ and WES have drafted an Addendum to the March 2000 Consent Order that allows WES to perform startup, shakedown and testing of its pollution control equipment without being bound to the no-longer practicable operating parameters of the 1996 AO. The agreement provides that the emissions limits in the 1996 AO will continue to apply to the source, but that otherwise the 2000 AO will apply in every respect except the

emission limits contained in it, which will become effective in October of 2002. Because the earlier Consent Order was approved by the Board, this agreement is submitted to you for your additional approval.

Staff also notes that this Consent Order in no way affects WES's obligations to comply with the requirements contained in the final version of the new Rule and Plan for Small Municipal Waste Combustor Units that may be promulgated by the Board.

Staff recommendation: Staff recommends that the Air Quality Board approve the Addendum to Stipulation and Consent Order.

BEFORE THE UTAH AIR QUALITY BOARD

—ooOoo—

In the Matter Of:)	
)	ADDENDUM TO STIPULATION
)	AND CONSENT ORDER
WASATCH ENERGY SYSTEMS)	
)	

—ooOoo—

This addendum (the "Addendum") to the Stipulation and Consent Order (the "Consent Order") executed by Davis County Solid Waste Management and Energy Recovery Special Service District, dba Wasatch Energy Systems ("WES") and the Utah Air Quality Board (the "UAQB") on March 27, 2000, is entered into pursuant to the Utah Air Conservation Act, Utah Code Ann. § 19-2-101 et seq., as amended. .

Background

1. On March 27, 2000, WES and the UAQB executed the Consent Order, which provided, among other things, that WES would commence an accelerated design and construction schedule for a new pollution control system at its energy recovery facility. The Consent Order contemplated that WES would operate under the terms of its 1996 approval order until the new retrofit is online, performance testing has been completed, and a new approval order issued September 6, 2000 is enforceable. By its terms, the 2000 approval order is not effective until October 6, 2002.
2. The new retrofit of pollution control equipment at WES's energy recovery facility is nearing completion and is scheduled for start up before the end of August, 2001.
3. In preparing to start up the new retrofit, an issue has become apparent from the language of the Consent Order and the 2000 approval order that was not intended by WES or the UAQB, and that they desire to resolve hereby.
4. WES and the UAQB agree that the intent of provisions in the Consent Order and the 2000 approval order concerning the effective dates of the 1996 and 2000 approval orders was to define the dates when the emissions limitations contained in those approval orders are effective and not to define the dates when the operating parameters and criteria are to be followed. The UAQB agrees and understands that if WES is to start up its new pollution control equipment and conduct shakedown and performance testing, it will need to begin following the operating parameters and criteria of the 2000 approval order because the operating parameters and criteria of the 1996 approval order have no application to operation of the facility with the new equipment.

Addendum to Stipulation and Consent Order

This Addendum to the Consent Order is executed by WES and the Utah Air Quality Board. WES and the UAQB agree as follows:

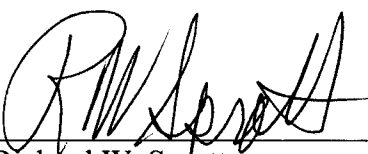
1. Prior to start up of its new pollution control equipment, all provisions of WES's 1996 approval order, DAQE-850-96, shall apply.
2. When WES commences start up of its new pollution control equipment, only the emissions limitations contained in the 1996 approval order will continue to apply to WES's energy recovery facility. All other provisions of the 1996 approval order will cease to apply. WES shall give the Utah Division of Air Quality written notice of the commencement of start up of the new pollution control equipment.
3. Notwithstanding conditions 4, 6, and 7 of WES's 2000 approval order, DAQE-516-00, at start up of its new pollution control equipment, all provisions of WES's 2000 approval order will be applicable to WES's energy recovery facility, except the emissions limitations contained in the 2000 approval order.
4. The emissions limitations contained in the 2000 approval order will become effective October 6, 2002.
5. Nothing in this Addendum is intended to affect or modify WES's obligations to comply with the requirements of any final promulgation of the proposed UAC R307-223 and Plan for Small Municipal Waste Combustor Units.

DATED this 20 day of August, 2001.

WASATCH ENERGY SYSTEMS

By: 
Nathan Rich, Executive Director

UTAH AIR QUALITY BOARD

By: 
Richard W. Spott
Executive Secretary



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

MEMORANDUM

TO: Air Quality Board DAQ-078-01

THROUGH: Richard W. Sprott, Executive Secretary

FROM: Ran Macdonald, Environmental Engineer

DATE: August 27, 2001

SUBJECT: Final Adoption: Return to 2.7% Oxygenated Gasoline in Utah County, R307-301-3, R307-110-12 and SIP Section IX.C.6.f(2)

On July 11, 2001, the Air Quality Board proposed amendments in the oxygenated gasoline rule and in the Carbon Monoxide State Implementation Plan for Provo-Orem in order to change the oxygenate requirement in Utah County from 3.1% to 2.7% and substitute training of mechanics as a contingency measure instead of 3.1% oxygenate.

A public hearing was held on August 22; there were three comments. Representatives of the Mountainlands Association of Governments and Utah County said they support reducing oxygenate from 3.2% to 2.7%, but would prefer to reduce it further or eliminate it altogether, perhaps by substituting credit for Utah County's Remote Sensing program. They expect to continue to work with DAQ and EPA to find a way to eliminate oxygenate entirely. Dana Fairbanks, who owns an electrical business, supports eliminating oxygenate entirely, as he believes that Geneva Steel is the main source of pollution in the County, and gas mileage in his trucks is reduced in winter due to the oxygenate.

The public comment period will close on August 31. If additional comments are received, staff will bring them to your meeting on September 5.

Staff Recommendation: Staff recommends adoption as proposed.

TABLE I
Training and Instruction

Work Process	Approximate Hours
A. Use of hand tools, equipment and pipe machinery	[450]200
B. Installation of piping for waste, soil, sewer vent and leader lines	[2,200]2,250
C. Installation of hot and cold water for domestic purposes	1,600
D. Installation and setting of plumbing appliances and fixtures	1,600
E. Maintenance and repair of plumbing	800
F. General pipe work including process and industrial hours	800
G. [Installation of sheet lead and solder work	50
H.]Gas piping or service piping	500
[+]-]H. Welding as it applies to the trade	100
[+]-]L. Service and maintenance of gas controls and equipment	200

(2) A residential journeyman plumber applicant shall demonstrate successful completion of:

(a) 6,000 hours of training and instruction, in not less than three years, while licensed as an apprentice plumber or residential apprentice plumber, completed an apprenticeship program of training meeting the requirements of Section R156-55c-601, in the following experience areas and approximate number of hours as identified in Table II; or

(b) 12,000 hours of experience, in not less than six years, in a maintenance or repair trade for which the applicant can document that not less than 75% of the work performed was directly involved in the plumbing trade including as a minimum the number of hours performing work in each of the experience areas required under Subsection (2)(a).

TABLE II
Training and Instruction

Work Process	Approximate Hours
A. Use of hand tools, equipment and pipe machinery	100
B. Installation of piping for waste, soil, sewer vent and leader lines	1,800
C. Installation of hot and cold water for domestic purposes	1,400
D. Installation and setting of plumbing appliances and fixtures	1,200
E. Maintenance and repair of plumbing	800

F. Gas piping or service piping	500
G. Service and maintenance of gas controls and equipment	200

(3) A residential journeyman plumber applying for a journeyman plumbers license must complete 2,000 hours of on the job training in industrial or commercial plumbing while licensed as an apprentice plumber and complete an approved fourth year course of classroom instruction.

KEY: occupational licensing, licensing, plumbers*, plumbing*
 [April 30,] 2001 58-1-106(1)
 Notice of Continuation February 10, 1997 58-1-202(1)
 58-55-101



Environmental Quality, Air Quality
R307-110-12
Section IX, Control Measures for Area and Point Sources, Part C, Carbon Monoxide

NOTICE OF PROPOSED RULE
 (Amendment)

DAR FILE NO.: 23918
 FILED: 07/16/2001, 16:59
 RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: Replace use of 3.1% oxygenated gasoline with technician training as a contingency measure in the Carbon Monoxide State Implementation Plan for Provo (see related filing on R307-301-3 in this issue.)

(DAR Note: R307-301-3 is found under DAR No. 23919 in this issue of the *Bulletin*.)

SUMMARY OF THE RULE OR CHANGE: Section R307-110-12 incorporates by reference State Implementation Plan (SIP) Section IX, Part C, Carbon Monoxide. This amendment removes 3.1% oxygenated gasoline as a contingency measure in the SIP for Provo, and adds in its place the technician training program that Utah County conducts as part of its vehicle emissions inspection and maintenance program. The enhanced training program is described in SIP Section X, Part C. In the seven years since the Provo Carbon Monoxide SIP was written, newer vehicles have computer controls that are better at reducing emissions; thus, use of oxyfuel is less effective, and reductions in carbon monoxide emissions today are greater from use of 2.7% oxyfuel with the training program than they are from use of 3.1% oxyfuel without the training program.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 19-2-104(1)(a)

THIS RULE OR CHANGE INCORPORATES BY REFERENCE THE FOLLOWING MATERIAL: State Implementation Plan IX.C.6f(2)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No change because the training program is already in place.

❖LOCAL GOVERNMENTS: No change--Utah County operates the vehicle emissions inspection and maintenance program, and implemented the enhanced training program last year. No other local governments are affected.

❖OTHER PERSONS: Removing 3.1% oxygenated gasoline as a contingency measure in the Provo carbon monoxide SIP reduces costs for refiners by about \$800,000 per year, and that saving at the refinery may result in savings up to \$0.02/gallon for Utah County consumers at the gas pump (see separate filing for Section R307-301-3 for details of the calculation.) Adding the enhanced technician training program to the Provo CO SIP will not increase costs to businesses or consumers because the training program has been in place for many years and has not changed the cost of the vehicle emissions inspection.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Removing 3.1% oxygenated gasoline as a contingency measure in the Provo carbon monoxide state implementation plan (SIP) reduces costs for refiners by about \$800,000 per year, and that saving at the refinery may result in savings up to \$0.02/gallon for Utah County consumers at the gas pump. (See separate filing for R307-301-3 in this issue for details of the calculation.) Adding the enhanced technician training program to the Provo CO SIP will not increase costs to businesses or consumers because the training program has been in place for many years and has not changed the cost of the vehicle emissions inspection.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: Computer controls on newer cars has brought enough reductions in emissions that 3.1% oxygenated gasoline is no longer needed. Returning to 2.7% oxygenated gasoline saves money for the refiners. Dianne R. Nielson, Ph.D.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Air Quality
150 North 1950 West
PO Box 144820
Salt Lake City, UT 84114-4820, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmiller@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 08/31/2001; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 08/22/2001, 1:30 p.m., Room 1500, Utah County Offices, 100 East Center Street, Provo.

THIS RULE MAY BECOME EFFECTIVE ON: 09/06/2001

AUTHORIZED BY: M. Cheryl Heying, Planning Branch Manager

R307. Environmental Quality, Air Quality.

R307-110. General Requirements: State Implementation Plan.

R307-110-12. Section IX, Control Measures for Area and Point Sources, Part C, Carbon Monoxide.

The Utah State Implementation Plan, Section IX, Control Measures for Area and Point Sources, Part C, Carbon Monoxide, as most recently amended by the Utah Air Quality Board on ~~January 7, 1998~~ September 5, 2001, pursuant to Section 19-2-104, is hereby incorporated by reference and made a part of these rules.

KEY: air pollution, small business assistance program*, particulate matter*, ozone

~~February 10, 2000~~ 2001

19-2-104(3)(e)

Notice of Continuation June 2, 1997

**Environmental Quality, Air Quality
R307-301-3
Average Oxygen Content Standard**

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE No.: 23919

FILED: 07/16/2001, 17:01

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: Reduce the oxygen content of wintertime gasoline in Utah County from 3.1% to 2.7% (see related filing for R307-110-12 in this issue.)

(**DAR Note:** R307-110-12 can be found under DAR No. 23918 in this issue of the *Bulletin*.)

SUMMARY OF THE RULE OR CHANGE: Delete everything in Subsection R307-301-3(1) after "an average oxygen content of not less than 2.7% by weight." Under 42 U.S.C. 211(m)(1) of the federal Clean Air Act, oxygenated gasoline has been required in Utah County in the winter months since 1992 to reduce emissions of carbon monoxide. In 1995, the percentage oxygen was increased from 2.7% to 3.1% because actual vehicle miles traveled was greater than had been projected, and because Utah County did not complete improvements to its vehicle emissions inspection program on time. Current analysis indicates that the enhanced training program for vehicle emission system repair technicians that is conducted by the Utah County Environmental Health program reduces emissions more with 2.7% oxyfuel than the 3.1% oxyfuel program by itself. Therefore, this rule change reduces the required oxygen percentage to 2.7%. Utah

1
2 **Utah State Implementation Plan**

3
4 **SECTION IX**
5 **CONTROL MEASURES**
6 **FOR AREA and POINT SOURCES**

7
8 **Part C**
9 **CARBON MONOXIDE**

10
11
12
13
14 **SALT LAKE CITY**
15 **OGDEN**
16 **UTAH COUNTY**

17
18 Adopted by the Air Quality Board
19 September 5, 2001
20

1 **IX.C.6 Provo**

2
3 f. Contingency/Stop-Gap Measures

4
5 (2) Contingency Measures

6
7 As a contingency measure, the State is adopting an enhanced technician training program. Utah County has
8 implemented an enhanced technician training program to increase the effectiveness of their Vehicle Emissions
9 Inspection and Maintenance Program. Table IX.C.14a and Figure IX.C.13a below indicate that the enhanced
10 technician training program provides more emission reductions than does increasing oxygenate from 2.7% to
11 3.1%. Documentation of the enhanced training program is found in the Utah County Vehicle Emissions
12 Inspection Program, SIP Section X.C, adopted by the Air Quality Board on August 1, 2001.
13

1 **Table IX.C.14a**

2

3

4

5

CO Tons Per Day			
Year	with 3.1% Oxy Fuel	with 2.7% Oxy Fuel	Difference between 3.1% and 2.7%
	without Tech Training	with Tech Training	
1993	50.92	52.47	1.55
1996	45.55	46.72	1.17
1999	48.52	49.54	1.02
2000	49.71	48.23	-1.48
2001	51.16	49.67	-1.49
2002	54.32	52.92	-1.40
2003	56.57	55.30	-1.28
2005	48.04	47.06	-0.98
2008	41.35	41.05	-0.30

6

7

8

9

10

11

12

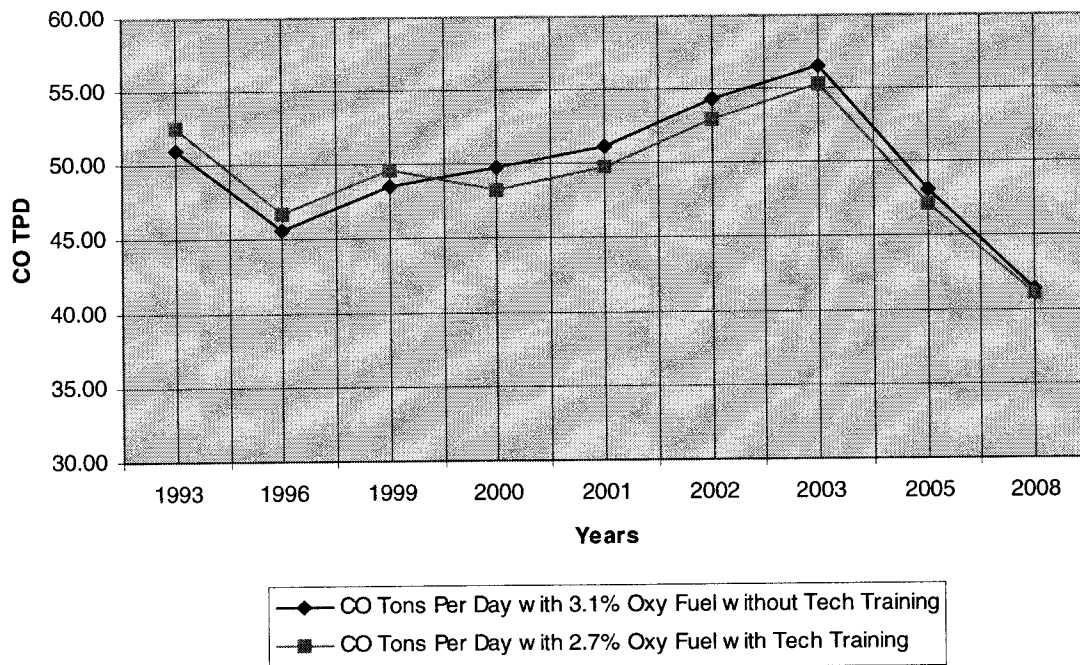
13

14

15

16 **Figure IX.C.13a**

17 **3.1% Oxy Fuels without Tech Training vs. 2.7% Oxy Fuels with Tech Training**



THIS RULE OR CHANGE INCORPORATES BY REFERENCE THE FOLLOWING MATERIAL: State Implementation Plan IX.C.6f(2)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No change because the training program is already in place.
 ❖LOCAL GOVERNMENTS: No change--Utah County operates the vehicle emissions inspection and maintenance program, and implemented the enhanced training program last year. No other local governments are affected.
 ❖OTHER PERSONS: Removing 3.1% oxygenated gasoline as a contingency measure in the Provo carbon monoxide SIP reduces costs for refiners by about \$800,000 per year, and that saving at the refinery may result in savings up to \$0.02/gallon for Utah County consumers at the gas pump (see separate filing for Section R307-301-3 for details of the calculation.) Adding the enhanced technician training program to the Provo CO SIP will not increase costs to businesses or consumers because the training program has been in place for many years and has not changed the cost of the vehicle emissions inspection.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Removing 3.1% oxygenated gasoline as a contingency measure in the Provo carbon monoxide state implementation plan (SIP) reduces costs for refiners by about \$800,000 per year, and that saving at the refinery may result in savings up to \$0.02/gallon for Utah County consumers at the gas pump. (See separate filing for R307-301-3 in this issue for details of the calculation.) Adding the enhanced technician training program to the Provo CO SIP will not increase costs to businesses or consumers because the training program has been in place for many years and has not changed the cost of the vehicle emissions inspection.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: Computer controls on newer cars has brought enough reductions in emissions that 3.1% oxygenated gasoline is no longer needed. Returning to 2.7% oxygenated gasoline saves money for the refiners. Dianne R. Nielson, Ph.D.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
 Air Quality
 150 North 1950 West
 PO Box 144820
 Salt Lake City, UT 84114-4820, or
 at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmiller@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 08/31/2001; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 08/22/2001, 1:30 p.m., Room 1500, Utah County Offices, 100 East Center Street, Provo.

THIS RULE MAY BECOME EFFECTIVE ON: 09/06/2001

AUTHORIZED BY: M. Cheryl Heying, Planning Branch Manager

**R307. Environmental Quality, Air Quality.
 R307-110. General Requirements: State Implementation Plan.
 R307-110-12. Section IX, Control Measures for Area and Point Sources, Part C, Carbon Monoxide.**

The Utah State Implementation Plan, Section IX, Control Measures for Area and Point Sources, Part C, Carbon Monoxide, as most recently amended by the Utah Air Quality Board on [January 7, 1998] September 5, 2001, pursuant to Section 19-2-104, is hereby incorporated by reference and made a part of these rules.

KEY: air pollution, small business assistance program*, particulate matter*, ozone
 [February 16, 2000] 2001 19-2-104(3)(e)
 Notice of Continuation June 2, 1997

**Environmental Quality, Air Quality
 R307-301-3
 Average Oxygen Content Standard**

NOTICE OF PROPOSED RULE
 (Amendment)
 DAR FILE NO.: 23919
 FILED: 07/16/2001, 17:01
 RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: Reduce the oxygen content of wintertime gasoline in Utah County from 3.1% to 2.7% (see related filing for R307-110-12 in this issue.)

(DAR Note: R307-110-12 can be found under DAR No. 23918 in this issue of the *Bulletin*.)

SUMMARY OF THE RULE OR CHANGE: Delete everything in Subsection R307-301-3(1) after "an average oxygen content of not less than 2.7% by weight." Under 42 U.S.C. 211(m)(1) of the federal Clean Air Act, oxygenated gasoline has been required in Utah County in the winter months since 1992 to reduce emissions of carbon monoxide. In 1995, the percentage oxygen was increased from 2.7% to 3.1% because actual vehicle miles traveled was greater than had been projected, and because Utah County did not complete improvements to its vehicle emissions inspection program on time. Current analysis indicates that the enhanced training program for vehicle emission system repair technicians that is conducted by the Utah County Environmental Health program reduces emissions more with 2.7% oxyfuel than the 3.1% oxyfuel program by itself. Therefore, this rule change reduces the required oxygen percentage to 2.7%. Utah

County has had no exceedances of the health standard since 1996.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 19-2-104(1)(a)

FEDERAL REQUIREMENT FOR THIS RULE: 42 U.S.C. 211(m)(1)

ANTICIPATED COST OR SAVINGS TO:

❖THE STATE BUDGET: No change--Oversight costs to test the oxygenate percentage in the fuel are the same for either percentage of oxygenate.

❖LOCAL GOVERNMENTS: No change--Utah County operates the vehicle emissions inspection and maintenance program, but does not oversee the percentage of oxygenate in the gasoline. No other local governments are affected.

❖OTHER PERSONS: Affected persons include the petroleum refineries that add oxygenate to the gasoline, the service stations in Utah County that market gasoline to the public, and vehicle owners who purchase gasoline in Utah County. For refiners, the rule change will provide savings of approximately \$800,000 per year. (Approximately 8,000 gallons of gasoline are sold each day in Utah County. For the 120-day oxyfuel season, refiners will no longer need to buy approximately 12,000 barrels of ethanol @ approximately \$65/barrel.) This should provide some savings to service stations as well, though a great many factors influence the wholesale price. For the consumer, the maximum savings would be \$0.02/gallon: 100 barrels ethanol/day = \$6,500 saved/day by refiners. Consumers buy daily about 8,000 X 42 gallons/barrel = 336,000 gallons. $\$6,500/336,000 = \$0.019/\text{gallon}$. This will fluctuate because the price of oil and ethanol vary, and because the cost of refining the oil and transporting the gasoline must be included.

COMPLIANCE COSTS FOR AFFECTED PERSONS: Affected persons include the petroleum refineries that add oxygenate to the gasoline, the service stations in Utah County that market gasoline to the public, and vehicle owners who purchase gasoline in Utah County. For refiners, the rule change will provide savings of approximately \$800,000 per year. (Approximately 8,000 gallons of gasoline are sold each day in Utah County. For the 120-day oxyfuel season, refiners will no longer need to buy approximately 12,000 barrels of ethanol @approximately \$65/barrel.) This should provide some savings to service stations as well, though a great many factors influence the wholesale price. For the consumer, the maximum savings would be \$0.02/gallon: 100 barrels ethanol/day = \$6,500 saved/day by refiners. Consumers buy daily about 8,000 X 42 gallons/barrel = 336,000 gallons. $\$6,500/336,000 = \$0.019/\text{gallon}$. This will fluctuate because the price of oil and ethanol vary, and because the cost of refining the oil and transporting the gasoline must be included.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: Reducing the oxygen content will provide small savings to the refiners, the gasoline retailers, and Utah County gasoline consumers. Dianne R. Nielson, Ph.D.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Air Quality
150 North 1950 West
PO Box 144820
Salt Lake City, UT 84114-4820, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Jan Miller at the above address, by phone at (801) 536-4042, by FAX at (801) 536-4099, or by Internet E-mail at jmiller@deq.state.ut.us.

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS TO THE ADDRESS ABOVE NO LATER THAN 5:00 P.M. ON 08/31/2001; OR ATTENDING A PUBLIC HEARING SCHEDULED FOR 08/22/2001, 1:30 p.m., Room 1500, Utah County Offices, 100 East Center Street, Provo.

THIS RULE MAY BECOME EFFECTIVE ON: 09/06/2001

AUTHORIZED BY: M. Cheryl Heying, Planning Branch Manager

R307. Environmental Quality, Air Quality.

R307-301. Utah and Weber Counties: Oxygenated Gasoline Program.

R307-301-2. Applicability and Control Period Start Dates.

(1) Unless waived under authority of 42 U.S.C. 7545(m)(3) by the Administrator of the Environmental Protection Agency, R307-301 is applicable in Utah and Weber Counties.

(2) The first control period for areas for which R307-301 is applicable begins:

(a) November 1, 1992, for the entire Provo-Orem Metropolitan Statistical Area which includes all of Utah County; and

(b) November 1 following the trigger date for Weber County.

R307-301-3. Average Oxygen Content Standard.

(1) All gasoline sold or dispensed during the control period, for use in each control area, by each CAR or blender CAR as defined in R307-301-1, shall be blended for each averaging period to contain an average oxygen content of not less than 2.7% oxygen by weight, except that:

~~(a) if the Board determines that the 2.7% oxygen by weight requirement will prevent or interfere with attainment of the PM₁₀ National Ambient Air Quality Standards and the State requests and is granted a waiver from the Administrator of the Environmental Protection Agency under 42 U.S.C. 7545, the waiver amount granted by the Administrator of the Environmental Protection Agency, shall apply;~~

~~(b) if the enhanced inspection and maintenance program specified in Section IX, Part C.6:j(2)(b) of the state implementation plan is not implemented by January 1, 1996 (or if an equivalent automotive improvement program is not implemented that results~~

in emissions factors equal to or less than the emission factors in Table IX.C.23 of the state implementation plan), all gasoline sold or dispensed during the control period beginning November 1, 1996, and subsequent control periods, for use in the Provo-Orem MSA, by each CAR or blender CAR as defined in R307-301-1, shall be blended to contain an average oxygen content of not less than 3.1% by weight until the next full control period following one year after the implementation of an enhanced inspection and maintenance program with mobile source emission factors equal to or less than every emission factor in the matrix in Table IX.C.23 of the state implementation plan and the enhanced inspection and maintenance performance standards of 40 CFR 51.351 or until the next full control period following implementation of a program that would result in emission factors equal to or less than the mobile source emission factors in the matrix contained in Table IX.C.23 of the state implementation plan;

(c) if triggered as a contingency measure, as specified in Section IX, Part C.6.f of the state implementation plan, all gasoline sold or dispensed during the control period for use in the Provo-Orem MSA, by each CAR or blender CAR as defined in R307-301-1, shall be blended to contain an average oxygen content of not less than 3.1% by weight until it is shown to be unnecessary in the maintenance demonstration required by the Clean Air Act or until it is replaced with other control measures in a state implementation plan revision that demonstrates attainment of the National Ambient Air Quality Standard].

(2) The averaging period over which all gasoline sold or dispensed in the control area is to be averaged shall be equal to the control period.

(3) All gasoline, both leaded and unleaded, shall be blended in compliance with 40 CFR Part 79 (1991) - Registration of Fuels and Fuel Additives and 40 CFR Part 80 (1991) - Regulation of Fuels and Fuel Additives.

(4) Any gasoline blended under 42 U.S.C. 7545(f)(1) dealing with substantially similar fuels must be blended in compliance with the criteria specified in the substantially similar ruling. Any extra volume of oxygenate or oxygenates added to gasoline blended under a substantially similar ruling as provided for under 42 U.S.C. 7545(f)(1) in excess of the criteria specified in 42 U.S.C. 7545(f)(1) may not be included in the compliance calculations specified in R307-301-5(2) and (3).

(5) Any gasoline blended under a waiver granted by the Environmental Protection Agency under the provisions of 42 U.S.C. 7545(f)(4) must be blended in compliance with the criteria specified in the appropriate waiver. Gasoline blends waived to oxygen content above 2.7% oxygen by weight are not permitted a blending allowance for blending tolerance purposes. Any extra volume of oxygenate in excess of the criteria specified in the appropriate waiver may not be included in the compliance calculations specified in R307-301-5(2) or (3).

(6) Oxygen content shall be determined in accordance with R307-301-4.

KEY: air pollution control, motor vehicles, gasoline, petroleum
[September 15, 1998]2001 19-2-101
Notice of Continuation June 9, 1997 19-2-104

◆ _____ ◆

**Environmental Quality , Radiation
Control
R313-26
Generator Site Access Permit
Requirements for Accessing Utah
Radioactive Waste Disposal Facilities**

NOTICE OF PROPOSED RULE

(Amendment)

DAR FILE NO.: 23905

FILED: 07/13/2001, 14:29

RECEIVED BY: NL

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: Implements public requests from the public comment for the new rule.

(DAR Note: The proposed new rule for R313-26 was published in the May 1, 2001, issue of the *Utah State Bulletin* under DAR No. 23669 and was effective June 8, 2001.)

SUMMARY OF THE RULE OR CHANGE: Changes are made for clarification.

STATE STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Section 19-3-106.4

ANTICIPATED COST OR SAVINGS TO:

❖ **THE STATE BUDGET:** This is an amendment, and there are no additional costs. The changes are just clarifications.

❖ **LOCAL GOVERNMENTS:** This is an amendment, and there are no additional costs. The changes are just clarifications.

❖ **OTHER PERSONS:** This is an amendment, and there are no additional costs. The changes are just clarifications.

COMPLIANCE COSTS FOR AFFECTED PERSONS: There are no changes to the compliance costs. The changes are just clarifications.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: There is no impact on Utah businesses as all fees are paid by permittees outside the State of Utah.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

Environmental Quality
Radiation Control
State of Utah Office Park, Bldg. 2
168 North 1950 West
PO Box 144850
Salt Lake City, UT 84114-4850, or
at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

Edith Barker at the above address, by phone at (801) 536-0077, by FAX at (801) 533-4097, or by Internet E-mail at ebarker@deq.state.ut.us.



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

MEMORANDUM

TO: Air Quality Board DAQ-073-01
FROM: Richard W. Sprott, Executive Secretary
DATE: August 2001
SUBJECT: COMPLIANCE ACTIVITIES - JULY 2001

Annual inspections conducted:	
A	20
SM	19
B	15
Initial compliance inspections conducted:	
A	3
SM	2
B	1
On-site stack test audits conducted	10
Stack test report reviews	4
On-site CEM audits conducted	8
Emission reports reviewed	10
Oxy fuels inspections conducted	0
¹ Miscellaneous inspections conducted	13
Complaints received	38
VOC inspections:	
Tankers	0
Degreasers	6
Paint booths	8

¹Miscellaneous inspections include, e.g., surveillance, level I inspections, complaints, on-site training, tanker vapor certifications, dust patrol, smoke patrol, open burning, etc.

Source Compliance Action Notices issued	6
Notices of Violation issued	2
Settlement Agreements resolved	7
Penalties collected	\$138,807

Notices of Violation issued to:

Salt Lake Valley Solid Waste Management Facility
Cardwell Distributing

Settlement Agreements reached:

Geodyne Transport	\$ 2,100
Flying J	17,257
Deseret Chemical Depot	1,500
Dillman Investments	3,000
Phillips 66 Company	112,000
APW Zero Cases	2,450
Payson City Power	500



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Richard W. Sprott
Director

150 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820
(801) 536-4000 Voice
(801) 536-4099 Fax
(801) 536-4414 T.D.D.

MEMORANDUM

TO: Utah Air Quality Board DAQH-0524-01
FROM: Richard W. Sprott, Executive Secretary
DATE: August 21, 2001
SUBJECT: Hazardous Air Pollutant Section Compliance Activities - July, 2001

	6/01	7/01
Asbestos Demolition/Renovation Inspections.....	17	10
Asbestos in Schools Inspections.....	10	1
MACT Compliance Inspections.....	1	6
Other NESHAP Inspections.....	1	1
State Rules (Only) Inspections.....	0	0
Asbestos Notifications Approved.....	98	89
Asbestos Phone Calls Answered.....	333	309
Asbestos Individual Certifications: Approved/Disapproved.....	60/0	65/0
Company Certifications/Re-certifications.....	1/0	0/2
Alternate Asbestos Work Practices: Approved/Disapproved.....	0/0	0/0
Lead Based Paint (LBP) Inspections.....	4	0
LBP Notifications Approved.....	0	0
LBP Phone Calls Answered.....	193	117
LBP Letters prepared and mailed.....	58	71
LBP Courses Received/Approved.....	0/0	0/0
LBP Course Audits.....	0	0
LBP Certifications Approved/Disapproved.....	6/0	10/1
LBP Company Certifications.....	0	1
Notices of Violation Issued.....	0	2
Notices of Noncompliance (NON).....	0	0
SCANS (warning letters) Issued.....	0	7
Settlement Agreements Finalized.....	0	0
Penalties Agreed to.....	\$0	\$0
Notice of Violation issued to: Rocky Mountain Asbestos Abatement - Asbestos work practices Fresh Air Environmental Solutions - Asbestos work practices		

Settlement Agreements Reached: None

2001 OZONE EXCEEDANCE DATA -- Utah sites
(8-hr. running average > or = .085 ppm)

[Preliminary data (not quality assured) --- May 1 - August 21, 2001]

Chronological Order

DATE: Site, exceedance value in ppm

May 1 - July 2 (No exceedances)

July 3 B4 (.110)

July 4 BT (.109), WV (.088), WT (.088), ON (.085), BR(.088), HV (.091)

July 5 WV (.088)

July 24 WV (.088)

August 6 BR (.089), HV (.088), ON (.087)

August 17 B4 (.089), BR (.087), BT (.085)

Code key:

B4 = Beach #4 (Marina), BT = Bountiful CW = Cottonwood (High School)

HE = Herriman HG = Highland HW = Hawthorne

NP = North Provo ON = North Ogden SF = Spanish Fork

WT = Wash. Terrace WV = West Valley L4 = Logan

HV = Harrisville BR = Brigham City

2001 OZONE EXCEEDANCE DATA -- Utah sites
(8-hr. running average > or = .085 ppm)

[Preliminary data (not quality assured) --- May 1 - August 21, 2001]

Sorted by site:

SITES:

EXCEEDANCES:

Beach #4: (49-035-2004)	.110 (7/3), .089 (8/17)
Bountiful: (49-011-0001)	.109 (7/4), .085 (8/17)
Brigham City: (49-003-0003)	.088 (7/4), .089 (8/6), .087 (8/17)
Wash. Terrace: (49-057-0007)	.088 (7/4)
N. Ogden: (49-057-1002)	.085 (7/4), .087 (8/6)
Harrisville: (49-057-1003)	.091 (7/4), .088 (8/6)
West Valley: (49-035-3007)	.088 (7/4), .088 (7/5), .088 (7/24)

2001 OZONE EXCEEDANCE DATA -- Utah sites
(1-hr. averages > or = .125 ppm)

[Preliminary data (not quality assured) --- May 1 - August 21, 2001]

SITES:

EXCEEDANCES:

Bountiful: (49-011-0001)	.134 (7/4)
-----------------------------	------------

UTAH OZONE SUMMARY INFORMATION --- 1999-2001
Annual 4th max. Values (8-hr. Averages) and 3-year Average
(revised to exclude values flagged due to forest fires in 2000)

(Data calculated through August 20, 2001)

Site: (AIRS code)	1999 EPA	2000* EPA	2001 EPA	1999-2001 4th Max. Average
Bountiful 49-011-0001	.079	.078	.082	.079
Beach 49-035-2004	.077	.078	.082	.079
Cottonwood 49-035-0003	.080	.072	.079	.077
Hawthorne 49-035-3006	.078	.072	.076	.075
Herriman 49-035-3003	.077	.080	.075	.077
Highland 49-049-5008	.083	.076	.077	.078
North Provo 49-049-0002	.073	.071	.065	.069
Spanish Fork 49-049-5010	.079	.077	.072	.076
Wash. Terrace 49-057-0007	.074	.073	.080	.075
North Ogden 49-057-1002	.072	.072	.076	.073
Logan 49-005-0002	.066	.071	.070	.069
West Valley 49-035-3007	.077	.074	.084	.078
Brigham City 49-003-0003	— (new site)	---	.079	---
Harrisville 49-057-1003	— (new site)	---	.077	---

*(Note that the 3 year averages are truncated to the nearest ppb (.001 ppm), as the regulations require. Year 2000 data does not include values flagged due to forest fires from July 28 through August 3).

WP:ozcalz06(8/21/2001)

**UTAH OZONE SUMMARY INFORMATION --- 1998-2000
Annual 4th max. Values (8-hr. Averages) and 3-year Average
(revised to exclude values flagged due to forest fires in 2000)**

Site: (AIRS code)	1998 EPA	1999 EPA	2000* EPA	1998-2000 4th Max. Average
Bountiful 49-011-0001	.096	.079	.078	.084
Beach 49-035-2004	.095	.077	.078	.083
Cottonwood 49-035-0003	.092	.080	.072	.081
Hawthorne 49-035-3006	.093	.078	.072	.081
Herriman 49-035-3003	.089	.077	.080	.082
Highland 49-049-5008	.090	.083	.076	.083
North Provo 49-049-0002	.083	.073	.071	.075
Spanish Fork 49-049-5010	.078	.079	.077	.078
Wash. Terrace 49-057-0007	.090	.074	.073	.079
North Ogden 49-057-1002	.081	.072	.072	.075
Logan 49-005-0002	.068	.066	.071	.068
West Valley 49-035-3007	***	.077	.074	.075 (2 yrs. data)

*(Note that the 3 year averages are truncated to the nearest ppb (.001 ppm), as the regulations require. Year 2000 data does not include values flagged due to forest fires from July 28 through August 3).

WP:ozcalz04(8/21/2001)

UTAH STATE DIVISION OF AIR QUALITY

PM2.5 Actual Concentration (24-hr average) in Micrograms per Cubic Meter
2001 July

Date	BR	BT	BX	CW	GV	HE	HW	HG	HV	LN	LX	L4	NP	N2	O2	SF	WT	WX	WV	VX
07/01							5.6			5.2										
07/02										7.9										
07/03	6.6	8.7		13.2	7.9	6.5	8.8	7.4	6.9			9.2	12.8	16.3		7.6	12.5		22.3	
07/04							27.5			38.1										
07/05					10.8		15.2			17.2										
07/06	6.6	12.2	13.7	10.1		10.0	10.1	9.3		7.5	8.8	7.0	6.7	13.0		6.3			10.8	13.2
07/07							8.2			7.0					7.2					
07/08							7.3			7.0										
07/09	4.6	5.5		6.5		5.3	5.8	5.4	4.5	5.4		4.9	5.8	8.2		5.5			8.2	
07/10							5.2			5.3										
07/11										5.5					5.1					
07/12	5.1	5.7	6.6		5.4	6.3		6.2	4.3	7.4	7.1	5.2	6.8	9.2		5.5	5.5	5.5		
07/13							5.5			5.8										
07/14										4.7										
07/15	4.3	4.5		4.7	4.7	3.6	5.3	4.4		3.3		4.5	4.4	5.9		4.4			5.2	
07/16							6.2													
07/17																				
07/18	5.2	5.2	4.9	3.0	2.9		4.6	3.1		3.2	2.7	4.5	5.2	6.5		3.5	5.5	5.9	6.3	5.8
07/19							4.3			4.5										
07/20							5.3			5.2										
07/21	4.0	3.7		3.9	3.0	3.0	3.9	4.3	3.8	5.5		4.6	8.6	6.1	3.9	4.4	4.7		4.9	
07/22							5.3			4.3										
07/23							6.6			6.7										
07/24	4.6	6.2	6.2	28.7	5.2	5.4	26.4	6.5		24.5	24.3	7.7	13.0	22.4		4.9			48.5	48.4
07/25							10.0			9.9										
07/26							6.4			5.0										
07/27	5.4	6.2		6.1	4.5	4.2	6.5			7.4		6.2	7.5	7.5		5.8				
07/28							6.4			6.2										
07/29							7.9			6.1										
07/30	7.5	10.1	10.3	7.2	4.7	9.1	7.8		9.3	6.5	7.1	7.3	7.7	9.6		7.0		8.7	10.2	
07/31							5.9			6.6										

Arith Mean	5.4	6.8	8.4	9.3	5.4	5.9	8.4	5.8	5.8	8.2	10.0	6.1	7.8	10.5	5.4	5.5	7.1	6.7	14.5	22.5
Max 24-hr Avg	7.5	12.2	13.7	28.7	10.8	10.0	27.5	9.3	9.3	38.1	24.3	9.2	13.0	22.4	7.2	7.6	12.5	8.7	48.5	48.4
Std. Dev	1.2	2.7	3.6	7.9	2.5	2.4	5.9	2.0	2.3	7.3	8.3	1.6	2.9	5.3	1.7	1.3	3.7	1.7	14.8	22.8
Days of Data	10	10	5	9	9	9	26	8	5	28	5	10	10	10	3	10	4	3	8	3
Yearly Mean	10.5	11.3	11.0	15.4	8.6	9.2	15.3	10.8	10.2	12.9	11.2	16.3	12.7	16.1	5.4	9.9	10.2	10.9	14.9	14.4

UTAH STATE DIVISION OF AIR QUALITY

PM2.5 Actual Concentration (24-hr average) in Micrograms per Cubic Meter
2001 August

Date	BR	BT	BX	CW	GV	HE	HW	HG	HV	LN	LX	L4	NP	N2	O2	SF	WT	WX	WV	VX
08/01							7.6			6.7										
08/02	6.4	7.3		5.9	4.1	4.8	6.7	6.1	5.3	6.6		7.8	6.9	7.7		4.9	6.8		6.2	
08/03							9.4			6.1										
08/04							5.7			5.1										
08/05	4.6	5.7	6.0	4.8	5.0	3.6	5.3	4.3	4.5	3.4	4.5	5.4	4.4	7.4		3.6	6.2	6.2	5.9	6.3
08/06										7.9										
08/07							7.2			7.4										
08/08	7.2	7.3		8.8		6.7	8.0	7.0	7.2	7.8		9.0	7.8	8.7		9.4	7.9		6.6	
08/09							9.0			8.5										
08/10							7.4			7.2										
08/11	7.1	7.5		9.1	6.6	8.8	8.7	7.9		7.3	8.2	8.5	7.8	11.0		6.4	8.7	8.7	9.6	10.1
08/12							10.0			9.7										
08/13							10.7			11.0										
08/14	9.7	10.5					9.8					11.0								
08/15																				
08/16																				
08/17	15.6	17.5	17.7									16.5								
08/18																				
08/19																				
08/20																				
08/21																				
08/22																				
08/23																				
08/24																				
08/25																				
08/26																				
08/27																				
08/28																				
08/29																				
08/30																				
08/31																				
Arith Mean	8.4	9.3	11.9	7.1	5.2	6.0	8.1	6.3	5.7	7.3	6.4	9.7	6.7	8.7		6.1	7.4	7.5	7.1	8.2
Max 24-hr Avg	15.6	17.5	17.7	9.1	6.6	8.8	10.7	7.9	7.2	11.0	8.2	16.5	7.8	11.0		9.4	8.7	8.7	9.6	10.1
Std. Dev	3.9	4.3	8.2	2.1	1.3	2.3	1.7	1.6	1.4	1.9	2.6	3.8	1.6	1.6		2.5	1.1	1.8	1.7	2.7
Days of Data	6	6	2	4	3	4	13	4	3	13	2	6	4	4		4	4	2	4	2
Yearly Mean	10.4	11.2	11.0	15.0	8.5	9.0	15.0	10.6	10.1	12.6	11.0	15.9	12.4	15.6	5.4	9.7	10.1	10.7	14.6	14.2

UTAH STATE DIVISION OF AIR QUALITY

47mm Partisol: PM10 Concentration Adjusted to Sea Level (24-hr average) in Micrograms per Cubic Meter

2001 July

Date	Cottonwood	Hawthorn	Lindon	Logan 4	Magna(W)	Moab	NProvo	NProvo-X	NSL	NSL-X	Ogden2
07/01			36						32		34
07/02			58						66		43
07/03	44	39	63	35			46		68		53
07/04		68	88						62		63
07/05		50	73						82		
07/06	38	42	64		37	19	36	35	51	50	32
07/07		29	27						30		16
07/08		22	26						24		16
07/09	19	22	19	15	19		20		35		18
07/10		25	24						34		
07/11		22	28						30		
07/12	26	21	31	18	17	28	28	28	39	41	3
07/13		19	24						37		20
07/14		19	32						25		18
07/15	20	21	15	22	16		14		21		14
07/16		24	26						36		19
07/17		26	24						39		23
07/18	22	23	21	24	18	13	21	23	34	36	26
07/19		19	27						32		24
07/20		28	24						33		15
07/21	24	23	22	26			34		26		15
07/22		19	23		16				20		22
07/23		22	38						40		31
07/24	61	49	58	31	32	18	39	40	50	52	53
07/25		38	42						50		34
07/26		27	33						33		23
07/27	33		51	39	22		33		42		36
07/28		27	21						37		33
07/29		35							47		33
07/30	67	61	57	60		20	50	49	90	97	72
07/31		14	52		18				42		46

Arith Mean	36	30	38	30	22	20	32	35	42	55	30
Max 24-hr Avg	67	68	88	60	37	28	50	49	90	97	72
Std. Dev	17	13	19	14	8	5	12	10	17	24	16
Days of Data	10	28	30	9	9	5	10	5	31	5	28
Days >150											
Yearly Avg	32	32	33	31	27	20	29	29	45	49	32

UTAH STATE DIVISION OF AIR QUALITY

47mm Partisol: PM10 Concentration Adjusted to Sea Level (24-hr average) in Micrograms per Cubic Meter

2001 August

Date	Cottonwood	Hawthorn	Lindon	Logan 4	Magna(W)	Moab	NProvo	NProvo-X	NSL	NSL-X	Ogden2
08/01			39						53		40
08/02	3	31	40	41			33		40		42
08/03		34	42			19			50		37
08/04		22	24						25		17
08/05	23	19	21	18	18	12		21	31	31	24
08/06		34	59						53		37
08/07			45						45		36
08/08	39	31	42	39			33		41		34
08/09		47	40								53
08/10		27	39								38
08/11	45	32	39	36		20		31		56	44
08/12		39	39						78		45
08/13		43	51								40
08/14		31		34							
08/15											
08/16											
08/17											
08/18											
08/19											
08/20											
08/21											
08/22											
08/23											
08/24											
08/25											
08/26											
08/27											
08/28											
08/29											
08/30											
08/31											

Arith Mean	27	32	39	34	18	17	33	26	46	43	38
Max 24-hr Avg	45	47	59	41	18	20	33	31	78	56	53
Std. Dev	19	8	10	9		5	0	7	15	18	9
Days of Data	4	12	14	5	1	3	2	2	9	2	13
Days >150											
Yearly Avg	32	32	33	31	27	20	29	29	45	49	32