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Municipal Waste Combustion: Background Information Document for Federal Plan

Public Comments and Responses



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**MUNICIPAL WASTE COMBUSTION:
BACKGROUND INFORMATION DOCUMENT FOR FEDERAL PLAN**

PUBLIC COMMENTS AND RESPONSES

**U.S. Environmental Protection Agency
Office of Air and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711**

August 20, 1998

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1.0 LIST OF COMMENTERS

A list of the commenters, their affiliations, and the U.S. Environmental Protection Agency (EPA) docket number assigned to their correspondence is given in table 1-1.

TABLE 1-1. LIST OF COMMENTERS FOR MUNICIPAL WASTE
COMBUSTOR FEDERAL PLAN

Docket Number	Commenter and affiliation
IV-D-01	J. M. Daniel, Jr., P. E., DEE, Director of Technical Support Department of Environmental Quality Commonwealth of Virginia Richmond, VA
IV-D-02	J. B. Britton, Esq., Counsel Verner, Liipfert, Bernhard, McPherson, and Hand Washington, D.C. (for Alexandria/Arlington Resource Recovery Facility)
IV-D-03	M. P. Tracey, Director of Engineering Connecticut Resources Recovery Authority Hartford, CT
IV-D-04	M. Barnett, Environmental Compliance Engineer Southeastern Public Service Authority of Virginia Chesapeake, VA
IV-D-05	M. Swanson, Senior Environmental Analyst Northern States Power Company Minneapolis, MN
IV-D-06	B. Mathur, Chief, Bureau of Air Illinois Environmental Protection Agency Springfield, IL

TABLE 1-1. LIST OF COMMENTERS FOR MUNICIPAL WASTE
COMBUSTION FEDERAL PLAN

Docket Number	Commenter and affiliation
IV-G-05	R. D. Fletcher, Chief Emissions Assessment Branch California Environmental Protection Agency Sacramento, CA

2.0 GENERAL

Comment: One commenter (IV-G-02) stated that it is important that the Municipal Waste Combustor Federal plan (40 CFR part 62, subpart FFF) maintain full consistency with the individual State plans as they are completed, submitted, and revised so that owners and operators of large municipal waste combustors (MWCs) in States with State regulations but without approved State plans are not subject to fluctuating requirements between the Federal plan and the subsequently approved State plan. The commenter encouraged EPA to minimize conflicting requirements or compliance schedules for implementing the emission guidelines. Two commenters (IV-G-05, IV-D-08/IV-G-05) supported EPA's options for determining the incremental dates for site-specific compliance schedules. Both commenters agreed that the options are a good way of ensuring consistency between State plans and the Federal plan.

Response: The EPA agrees that the MWC Federal plan should be as consistent as practical with State plans. Because the Federal plan is an interim action until a State plan is approved, EPA designed the Federal plan to be consistent with the 40 CFR part 60, subparts B and Cb requirements for State plans. The Federal plan contains the same required elements as a State plan. To ensure a smooth transition from Federal plan to State plan, EPA requested that States and owners and operators submit compliance schedules that were already negotiated and agreed upon. During the comment period, several States submitted compliance schedules (from State plans) to include in the Federal plan. Adding site-specific schedules in the Federal plan ensures that owners and operators are progressing with their retrofits and assures the Federal plan is as consistent as practical with State plans.

3.0 DEFINITION OF INCREMENTS

3.1 Final Control Plan Requirements

Comment: Two commenters (IV-G-01, IV-D-05) believe that the requirements that describe the final control plan are burdensome to facilities. One commenter (IV-D-05) requested that EPA retain the “old” definition of final control plan. Several commenters (IV-D-05, IV-D-09, IV-G-01, IV-G-04) stated that the final control plan requirements are not consistent with what they envisioned while considering how to comply with 40 CFR part 60, subparts B and Cb.

One commenter (IV-G-01) was specifically concerned with the requirements for engineering specifications and drawings. To provide the level of detail for the final control plan in the Federal plan, the commenter (IV-G-01) might have to prematurely make a technology choice in order to submit the specifications and drawings before the final control plan compliance date. The commenter (IV-G-01) noted that bid-level drawings are extremely expensive and suggested that it may not be possible to provide the specifications and drawings for a reasonable cost. Some MWC owners rely on in-house engineering staff, particularly if the retrofits require modifications or replacement of existing components and the staff may use only sketches or catalogue drawings to describe the necessary work. Some MWC owners may rely on vendor documents, or have established relationships with contractors and equipment suppliers where plans and specifications are never prepared. The commenter (IV-G-01) specifically questioned the utility of the requirement to provide engineering specifications and drawings, and questioned EPA’s goal in making this requirement.

Two commenters (IV-G-04, IV-D-09) contended that the Federal plan requirements for a final control plan go well beyond the requirements specified in EPA’s “Municipal Waste Combustion: Summary of the Requirements for Section 111(d)/129 State Plans for

3.2 State Plan Process

Comment: Two commenters (IV-G-01, IV-G-02) contended that the Federal plan requirements would disrupt the State plan process to implement the emission guidelines. One commenter (IV-G-02) requested that EPA modify the Federal plan so that the definitions of final control plan and begin on-site construction are consistent with the State plan guidance document (EPA-456R-96-003). The commenter (IV-G-02) noted that operators, State agencies, and client communities have been planning capital improvements to be fully compliant with the emission guidelines (as noted in the schedules they submitted and the State's section 111(d) State plan) based on EPA's State plan guidance document. One commenter (IV-D-05) noted that the compliance schedules they previously submitted were not based on the Federal plan definition of final control plan.

One commenter (IV-D-09) noted that States that already have approved State plans were held to the final control plan description in the State plan guidance document. The commenter (IV-D-09) recommended that the State plan guidance document definition should be incorporated into the Federal plan to ensure consistency between currently approved State plans, the Federal plan, and State plans approved after promulgation of the Federal plan. Consistency will avoid increasing the stringency of future State plan approval and jeopardizing future State plan approvals, if plans did not incorporate the final control requirements described in the Federal plan.

One commenter (IV-G-02) believes that if the Federal plan criteria for the increments is adopted in the final Federal plan, the State implementation process would need to be changed. Another commenter (IV-G-01) stated that the control plan requirements in the Federal plan would complicate that transition from the Federal plan to a State plan. If these requirements remain in the Federal plan, then facilities would be required to begin work on them. For example, owners and operators of MWC facilities would begin preparing detailed drawings and specifications even though the State plan does not have the same requirements. The result will cause unnecessary expense and the potential for facilities to fail to meet some requirements because of having two dissimilar sets of requirements.

Response: The EPA agrees that the Federal plan should be as consistent as practical with State plans and EPA's State plan guidance document. As intended when the guidance

source will use to comply with the emission limits and other requirements (see section 3.1).
Any technique that will meet the emission limits can be used.

4.0 COMPLIANCE SCHEDULES

4.1 Dates on the Generic Schedules

Comment: Two commenters (IV-D-09, IV-G-04) requested that the increment 1 through 4 compliance dates should “float” relative to publication of the final rule in the Federal Register (i.e., each date would be a certain number of months after publication in the Federal Register) or float relative to issuance of any revised construction permits. The commenters believe that floating the dates would provide facilities more flexibility considering the late timing of the final Federal plan. States without approved plans would have more time to submit their implementation plans or obtain EPA approval of permits. Therefore, floating the dates would eliminate the potential for facilities to be in violation of the generic Federal plan schedule while waiting for approval of the State plan or receipt of State construction permits. One commenter (IV-G-04) contended that facilities may not meet the incremental compliance dates because of circumstances beyond their control. A delay would provide facilities more flexibility that will assist in achieving more timely compliance. Two commenters (IV-D-09, IV-G-04) requested that if floating the dates is not an option, then all dates should be delayed 6 months.

Response: The EPA maintains that the dates in the generic compliance schedule are achievable for MWC facilities for several reasons: the generic schedule is based on actual retrofits; owners and operators may submit site-specific alternative dates (with a justification) if they wish to differ from the generic schedule; and owners and operators have received adequate notice to begin retrofits. The EPA contends that facilities can meet the generic compliance schedule in the Federal plan. The generic compliance schedule and increments of progress are based on case studies of four MWC plants that either completed or are in the process of completing retrofits. To develop a realistic generic schedule, EPA reviewed the

Federal plan is published in the Federal Register. However, the overall generic compliance schedule for the MWC Federal plan is not changing: MWC owners and operators subject to the generic schedule are still bound by the final compliance date (increment 5) of December 19, 2000 and the dates for meeting increments 2 through 4 are still the same. In addition, the EPA revised the Federal plan definition of final control plan to be consistent with the State plan guidance document (see section 3.1). The revised control plan definition and submittal date allow MWC owners and operators to meet the increment 1 date.

4.3 Options 1, 2, and 3

Comment: One commenter (IV-G-05/IV-D-08), a State agency, supported option 2 (State submits alternative dates for increments 1, 2, 3, and 4) because it allows the Federal plan to maintain consistency with the increments of progress that the local air pollution control authorities have already established for each facility in the State. The commenter stated that this option makes the most sense for the State since it allows each facility to have a compliance schedule that is specifically tailored to its individual needs while still meeting the statutory deadlines. The commenter (IV-G-05/IV-D-08) submitted compliance schedules for two facilities in the State to be included in the final Federal plan. The commenter noted that including these schedules in the Federal plan allows the affected facilities to follow a consistent compliance schedule that continues when the State plan is approved.

One commenter supported (IV-D-03) option 3 (State or owner or operator submits alternative dates for increments 2, 3, and 4). The commenter noted that allowing MWC owners or operators to define the increment dates ensures maximum flexibility and increases regulatory efficiency without affecting human health or the environment. The commenter claimed that it is essential that the Federal plan provide this flexibility so that the regulating authority can follow its regular budgeting, procurement and construction procedures in a manner that neither disrupts operation of the facilities under its control, nor imposes undue hardships on the municipalities which are served by, and ultimately pay for the resource recovery facilities in the State.

One commenter (IV-D-09) claimed that option 3 is not realistic since the time required to receive alternative date approval may still put the facility in violation of the Federal plan.

In addition, the EPA contends that facilities can meet the increment 1 date for the following reasons:

- Facilities have known about the emission guidelines since they were promulgated in December 1995, and most have started planning their controls.
- Facilities have known about the generic increment date since proposal of the Federal plan (1/23/98);
- EPA moved the compliance date back by at least 2 months from the proposed increment 1 date; and
- EPA simplified the required content for the increment 1 final control plan.

Regarding the process and timing of EPA approval of alternative dates, the EPA will review and approve or disapprove the alternative compliance dates in a timely manner. If a State chose option 2 (State submits alternative dates for increments 1, 2, 3, and 4 during the comment period), the EPA reviewed schedules and approved or disapproved them prior to adopting the Federal plan. Approved schedules are included in the adopted Federal plan. If a State or owner or operator chooses option 3 (State or owner or operator submits alternative dates for increments 2, 3, and 4 on or before the generic increment 1 date), EPA will review the compliance schedule as quickly as possible. In order to facilitate EPA review, the site-specific schedule requests should include a justification describing why the site-specific schedule is needed and should show that the site-specific schedule will lead to achieving final compliance no later than December 19, 2000. The generic schedule will apply until a site-specific schedule is approved. (See section 4.5 of this document and docket A-97-45, IV-A-1 for a discussion of EPA's review of compliance schedules.)

4.4 Dates Already Achieved

Comment: Two commenters (IV-D-09, IV-G-04) requested that EPA revise Table 6 of subpart FFF to show that the Westchester RESCO facility in Westchester County, New York and the Baltimore RESCO facility in Baltimore, Maryland started retrofit construction. The commenters noted that the increment 3 (start construction) dates for Westchester (1/1/98) and Baltimore (4/1/98) will have passed before promulgation of the

subpart Cb. The commenter (IV-D-02) noted that the proposed compliance schedule for Alexandria/Arlington accelerated by 14 months the allowable final compliance date of December 19, 2000. The commenter (IV-D-02) noted that the facility's operator intends to retrofit all three combustion units in order to comply with 40 CFR part 60, subpart Cb. The operator is physically unable to meet the proposed compliance date. The retrofit includes the installation of scrubbers, baghouses, a carbon injection system, and systems for the control of mercury and nitrogen oxides. The commenter (IV-D-02) noted that to accomplish such a retrofit requires approximately two and a half years for the securing of financing, bidding for equipment and construction contracts, procurement, and actual construction.

One commenter (IV-D-11) requested that EPA remove the site-specific compliance schedule for the Savannah Energy Systems Company in Savannah, Georgia. The commenter noted that the facility has proactively engaged in an accelerated program to install air pollution control devices and implement process changes necessary to ensure compliance with the emission guidelines. For example, the facility has already installed a new continuous monitoring system which was used for diagnostic purposes in selecting the particular devices or process changes needed for compliance. They also recently completed on-site construction of new spray dryer absorbers, baghouses, selective non-catalytic reduction systems, and carbon injection systems for both MWC units at the facility. The commenter believes that these new air pollution control systems are sufficiently complex that a commitment to meet a deadline other than the statutory deadline of December 19, 2000 is not warranted.

Three commenters (IV-D-01, IV-G-02, IV-G-03) requested that EPA modify the proposed compliance schedule for the I-95 Energy/Resource Recovery Facility in Lorton, Virginia. One commenter (IV-D-01) requested that EPA modify the schedule to accommodate the construction schedules for the facility while still allowing Virginia to comply with the emission reduction requirements of § 182(c)(2) of the Clean Air Act. All three commenters provided the same schedule as follows: Increment 1 (March 1, 1999), Increment 2 (October 15, 1999), Increment 3 (March 1, 2000), Increment 4 (November 19, 2000), and Increment 5 (December 19, 2000).

the approved schedules are published in the final Federal plan. A detailed discussion of the review is documented in a memo to the docket (A-97-45, IV-A-1). The EPA reviewed these schedules for acceptability along with schedules previously received. In its review, EPA considered the comments summarized above. The EPA determined a compliance schedule's acceptability based on the following criteria: Does the schedule meet the final compliance deadline of December 19, 2000? Does the schedule require 1 year to comply with the mercury and dioxin limits for MWC units that commenced construction after June 26, 1987? Does the schedule meet the revised generic increment 1 date? (See the response in section 4.3.) Are the increment 2, 3, and 4 dates earlier than or the same as the increment 2, 3, and 4 dates in the generic schedule? If any of the increment 1 through 4 dates were later than the generic compliance schedule, EPA contacted the State and discussed any questions. The EPA accepted dates later than the generic dates for increments 2, 3, and 4, if the State submitted a justification letter to explain why the increment 2, 3, and 4 dates are later than the generic compliance schedule. Note that this approach is consistent with option 3. Under option 3 (State or owner or operator submits a site-specific compliance schedule on or before the generic increment 1 date), the State or owner or operator must submit a justification for an increment 2, 3, or 4 date that is later than the generic schedule in the Federal plan.

Acceptable compliance schedules are included in the final Federal plan. Site-specific compliance schedules that did not meet EPA's criteria or for which EPA did not receive a justification letter are not included in the final Federal plan. Facilities without site-specific compliance schedules are subject to the generic compliance schedule in the Federal plan until a State plan is approved that includes those facilities.

The EPA removed the site-specific compliance schedules in the final plan for facilities in Georgia, Minnesota, and New York because the State plans were approved. MWC units covered by these State plans will follow the compliance schedule and other requirements in the approved State plan.

The EPA did not include the site-specific schedule for the Tulsa Resource Recovery Facility in Tulsa, Oklahoma; the Bristol Resource Facility in Bristol, Connecticut; and the Mid-Connecticut Resource Recovery Facility in Hartford, Connecticut because these schedules were submitted by an owner/operator under option 2. Only States may submit

5.0 COMPLIANCE DEADLINE

5.1 1995 vs. 1997 Limits

Comment: One commenter (IV-D-05) requested that EPA keep the staggered compliance schedule for sulfur dioxide, hydrogen chloride, lead, and nitrogen oxides. The commenter pointed out that the 1997 amendments to 40 CFR part 60, subparts Cb and Eb, require staggered compliance with the emission limits for sulfur dioxide, hydrogen chloride, lead, and nitrogen oxides: December 1995 limits by December 19, 2000 and August 1997 limits by August 25, 2002. The commenter believes that compliance with the limits should remain staggered, rather than requiring the more strict standards earlier. The commenter noted that although it may require the same equipment to meet both the year 2000 requirements and the year 2002 requirements, from an operational perspective, there may be a significant cost associated with requiring the more strict standards earlier. The commenter did not provide further information.

Response: The final Federal plan requires compliance with all limits by December 19, 2000. The same types of air pollution control technology that served as the basis for the 1995 limits achieved the 1997 amended limits: spray dryer/fabric filter or electrostatic precipitator (ESP), carbon injection, and selective non-catalytic reduction (SNCR) for non-refractory combustor types. Large MWC units would need to install these controls by December 19, 2000 to meet the original 1995 limits. As soon as the controls are installed, they will also meet the final, amended 1997 limits. The EPA's test data used to develop the emission guidelines shows that these controls reduce emission levels to well below the 1995 and 1997 limits (dockets A-89-08, A-90-45). The 1997 limits are only slightly different than the 1995 limits and would neither require major operational changes nor significantly increase costs. The commenters were not able to provide any specific

promulgation. Compliance for the remaining pollutants and associated monitoring must be achieved by December 19, 2000.

5.3 Timing for Performance Test

Comment: One commenter (IV-G-01) contended that the last sentence in 40 CFR 62.14108(a)(5) could be interpreted to say a facility can be out of compliance during the 180 days between the final compliance date and the performance test.

Section 62.14108(a)(5) says "On and after the date the initial performance test is completed or is required to be completed, whichever is earlier, no pollutant may be discharged into the atmosphere from an affected facility in excess of the emission limits of this subpart." The commenter requested that EPA edit 40 CFR 62.14108(a)(5) to clarify that facilities may not be out of compliance during the 180 days after installation of equipment. The commenter cited section 129(b)(2) of the Clean Air Act, which says that units must be in compliance with requirements no later than 5 years after promulgation of the emission guidelines. However, the commenter believes it is appropriate to allow up to 180 days after installation of equipment for performance testing (as is granted in New Source Review and New Source Performance Standards). The commenter pointed out that 40 CFR 62.14108(a)(5) could cause debate between States and affected facilities of exactly when facilities are supposed to be in compliance.

Response: The EPA maintains that if a facility has retrofitted all air pollution control equipment and the equipment is operating as designed, then the facility has reached compliance and should meet all emission limits. As defined in § 62.14108(a)(5), by the final compliance date, a facility must have incorporated all process changes or completed retrofit construction as designed in the final control plan and connected the air pollution control equipment or process changes with the affected facility identified in the final control plan such that if the affected facility is brought on line, all necessary process changes or air pollution control equipment are operating fully. The EPA maintains that facilities meeting this definition will produce emissions well below the emission limits in the Federal plan. Consistent with section 129(b)(2) of the Clean Air Act, the MWC Federal plan requires final compliance by December 19, 2000, which is five years after promulgation of the emission guidelines.

6.0 NO_x TRADING

Comment: One commenter (IV-D-03) requested that EPA include a provision to allow States that currently have active NO_x trading programs to continue to trade under these programs until their State plans are approved. The commenter (IV-D-03) strongly supports EPA's decision to allow States to establish programs to allow owners or operators of existing MWC units to trade NO_x emission credits. The commenter stated that EPA's proposed requirement for the State and EPA to approve NO_x trading programs on a case-by-case basis is time consuming and unnecessary. The commenter believes that it is in the best interest of EPA, the State, and the commenter to avoid the administrative burden and expense of preparing, finalizing, and approving new trading agreements and orders on a case-by-case basis for each of the MWC units.

The commenter (IV-D-03) requested that the Federal plan should be the mechanism to assure that the NO_x trading can continue if the State plan is not approved by May 1, 1999. The commenter (IV-D-03) noted that the MWC units in Connecticut currently have Trading Agreements and Orders that have been issued by the Connecticut Department of Environmental Protection. The Trading Orders were also approved by EPA as part of the State Implementation Plan (SIP) revision submitted by the State (62 FR 52016, October 6, 1997). Connecticut's State plan that will be submitted by the State will include a program to codify the trading concepts included in the Agreements and Orders. Since the existing Trading Agreements and Orders remain in effect only until May 1, 1999, the commenter requested that the Federal plan allow NO_x trading in case the Connecticut State plan is not approved by May 1, 1999.

Response: The EPA has reviewed Connecticut's existing Trading Agreements and Orders and has included them in the Federal plan. However, EPA has not included a

Response: The EPA agrees to allow any New Jersey facility intending to comply with the NO_x emission limits by use of NO_x trading to reserve the NO_x portion of the final control plan as described above because EPA supports open market concepts, including trading, especially when they can be harnessed to achieve environmental limits, minimize costs, and EPA can ensure the technical validity and track the parameters of the trade. The reserved NO_x portions of the control plans must be submitted by December 15, 1999. New Jersey will need to promptly amend and submit their OMET program to EPA in order to allow sufficient time (approximately 12 months) for EPA to review the program and follow the necessary administrative procedures, including proposal and promulgation notices in the Federal Register. The final compliance date for NO_x remains December 19, 2000. Also, there is no guarantee that owners and operators will be able to rely on OMET to meet the NO_x emission limits. MWC owners and operators subject to the Federal plan must decide the best means of reaching final compliance by December 19, 2000.

7.0 DIOXIN TESTING SCHEDULE

Comment: One commenter (IV-D-04) requested that EPA revise the schedule for the alternative dioxin testing to allow testing of one unit each calendar year, rather than testing of a unit within 12 months of the previous test. The commenter operates four MWC units at a single MWC plant. Each year, the facility is required by law to shut down and inspect each of the four units, perform maintenance, and conduct stack testing. To accommodate these requirements, their current schedule is to test Units 1 and 3 in October and test Units 2 and 4 in April. The plant has already tested all four units for 2 consecutive years and all four units achieved dioxin levels less than 15 nanograms per dry standard cubic meter (ng/dscm), qualifying the plant for alternative (reduced) dioxin testing under 40 CFR 62.14109 of subpart FFF. With their current maintenance/testing schedule, the “not more than 12 months following the previous performance test” interval in the proposed Federal plan is problematic. For example, if the facility tests Unit 1 in October (including a dioxin test), their next scheduled test (if the commenter tests the units in order - 1, 2, 3, then 4) for Unit 2 would be in April (6 months later). The commenter contends that in order to meet the “no more than 12 months” requirement, the facility would have to test a unit each 6 months. The current commenter believes that this runs counter to EPA’s intent when the alternative testing scenario was allowed, the intent being to reduce the cost of stack testing required of facilities that have minimized their dioxin emissions.

Response: The commenter notes, and EPA confirms, the MWC plant in question achieves low dioxin emissions (less than 15 ng/dscm) and the MWC plant qualifies for the alternative (reduced) dioxin testing schedule under 40 CFR 62.14109(d). The current maintenance/testing schedule selected by the MWC facility does not result in a 12-month interval between maintenance of all four units. Because a full 12-month interval does not

8.0 EMISSION LIMITS

8.1 Fugitive Ash

Commenter: One commenter (IV-G-02) requested that EPA identify additional maintenance activities for exemption from the fugitive ash emission standard. (The commenter refers to the fugitive ash emission standards in 40 CFR 60.55b of subpart Eb, which are the same as the fugitive ash standards in the MWC Federal plan, 40 CFR 62.14106 of subpart FFF.) The commenter noted that the fugitive ash emission standard includes a specific exemption when the ash handling equipment is off-line (not operating) for maintenance. Because this standard specifically applies to emissions discharged from buildings and enclosures of ash conveying systems during facility operations, the commenter suggested that periods of time when the MWC boiler is not operating also should be exempt because emissions will occur through the boiler door during cleaning.

Response: The EPA notes that the fugitive ash emission standards apply only to “ash conveyance systems.” Because the boiler doors are part of the boiler and are not part of the ash conveying system, the fugitive ash standard would not apply to the boiler doors. Furthermore, the emission limits for the boiler exhaust do not apply when the boiler is not operating.

8.2 Sulfur Dioxide

Comment: Three commenters (IV-D-05, IV-D-10, IV-D-04) noticed an error in Table 4 of the preamble. Compliance with the sulfur dioxide emission limit should be 29 ppm or 75 percent removal, not 80 percent removal. Seventy-five percent removal is consistent with the amendments to 40 CFR part 60, subpart Cb, published in the Federal Register on August 25, 1997 (62 FR 45116).

9.0 MONITORING

9.1 Carbon Feed Rate

Comment: Two commenters (IV-D-09, IV-G-04) requested a clarification on whether short term dips or temporary interruptions in carbon feed rates would be considered violations of 40 CFR 60.58b(m)(2). Examples of such interruptions would be when the carbon injection system is not operating for calibration, maintenance, malfunction, or other unavoidable conditions. The commenters suggested that quarterly carbon estimates are the appropriate method for determining continuous compliance with the carbon feed levels established during performance tests.

Response: The EPA determined that interruptions in operation of the carbon injection system are not automatically violations because the carbon injection feed rate established during the performance test is not an instantaneous average. The baseline carbon feed rate is the average feed rate during the mercury (or dioxin) performance test. To determine compliance, this average carbon feed rate is compared to the average carbon feed rate during subsequent MWC operations; an instantaneous average is not used. For example, if a large MWC unit is equipped with carbon injection and a performance test is conducted, the performance test would take about 8 hours and the carbon feed during the test would be about 15 pounds. The carbon injection rate over the 8-hour period would average 1.9 pounds per hour ($15/8=1.9$). During subsequent MWC operations, 15 pounds of carbon should be injected during each 8-hour operating period and would average 1.9 pounds per hour. If the screw feeder for the carbon injection system has to be taken off line for calibration for two hours, the carbon that is not injected during the downtime must be injected after restart. Therefore, 15 pounds of carbon would be injected during the remaining 6 hours of operation in the 8-hour period resulting in the same 1.9 pound per hour average feed rate over the

These changes to PS 4A would address the concerns raised by the commenter while still retaining the response time specifications requirements. In addition to these changes, EPA also intends to amend PS 4A to define relative accuracy in terms of a percentage of the applicable emission standard in addition to the current options to use 10 percent of the mean value of the reference method test data or 5 ppm. The EPA is in the process of amending and reformatting a number of test methods to make technical corrections, including these to PS 4A. The EPA expects to promulgate these amendments in the fall of 1998.

10.0 OPERATOR TRAINING

10.1 State Operator Training

Commenter: One commenter (IV-G-01) submitted the State's current rule regarding operator training and certification. The commenter also enclosed a proposed State rule incorporating Federal requirements for full certification of operators. The proposed rule is scheduled to become effective May 4, 1998. Minnesota has developed waste combustor training and has adopted examination and certification rules for waste combustor operators. Operators of large MWCs in Minnesota have chosen to obtain State certification rather than ASME certification.

Response: The EPA emission guidelines allow for State operator training and State certification as alternatives to the EPA training course and ASME certification. Because Minnesota has developed these programs, the final Federal plan will allow State operator training and State certification for MWCs in Minnesota. The Federal plan also allows State operator training in Connecticut and State certification in Connecticut and Maryland.

10.2 Stand-in Provisions

Comment: One commenter (IV-G-02) requested that EPA develop guidance to identify certain circumstances where a provisionally certified shift supervisor may fill in for a fully certified operator. (The commenter cites 40 CFR 60.54b of subpart Eb, which is cross-referenced in both the emission guidelines [40 CFR part 60, subpart Cb] and the Federal plan [40 CFR part 62, subpart FFF].) Such circumstances might include vacation, sick leave, medical leave, family leave, training and miscellaneous employment issues covering hiring, firing, promoting, retiring and transferring employees.

Response: The EPA addressed questions about circumstances where a provisionally certified shift supervisor may fill in for a fully certified operator in a May 14, 1998 Guidance

11.0 CONTINUOUS EMISSIONS MONITORING SYSTEM DATA

Comment: The commenter (IV-G-02) addressed the emission guidelines (40 CFR part 60, subpart Cb), not the Federal plan (40 CFR part 62, subpart FFF) and requested clarification on § 60.58b(e)(8). (Section 62.14109 of the MWC Federal plan cross references § 60.58b(e)(8) of the emission guidelines.) The commenter believes § 60.58b(e)(8) was intended to establish a certain minimum data collection requirement (75 percent). This 75 percent standard does not adequately address a 4-hour standard such as applied to carbon monoxide (CO). Also, the commenter believes the rule could be interpreted to mean that a single valid data point could represent any reporting period including daily averages. The commenter proposed that the 75 percent standard apply to any discrete reporting period.

Response: For pollutants measured by Continuous Emissions Monitoring Systems (CEMS), including CO, there are two separate requirements: (1) an emission limit, and (2) a minimum data collection requirement. The intent of the emission limit requirement is to assure that emissions do not exceed the emission limit. The intent of the minimum data collection requirement is to ensure that the CEM is properly and continuously operated. These separate requirements are further described below to provide clarification of the CEMS requirements. No changes are being made to the Federal plan.

For CO, compliance with the emission limit is based on 4-hour or 24-hour block averages, depending on combustor type, as specified in § 60.58b(i)(1) and (2). The 4-hour or 24-hour average is calculated as the average of 1-hour arithmetic averages. As specified in § 60.58b(i)(4), the 1-hour arithmetic averages are calculated using the data points generated by the CEMS, and at least two data points must be used to calculate each 1-hour average. All valid data measured during each 4-hour or 24-hour period is used to determine compliance,

12.0 STATE PLAN INFORMATION

Comment: Several commenters (IV-D-06, IV-D-08/IV-G-05, IV-D-07, IV-D-10) representing State agencies provided updates on the status of their State plan submittals. One commenter (IV-D-06) requested that EPA change the status of Illinois in the Federal plan. The commenter, the State agency, submitted its State plan for large MWCs on June 23, 1997. On December 29, 1997, the EPA approved the Illinois State plan through a direct final rulemaking (62 FR 67570). The EPA received no adverse comments and the State plan became effective on February 27, 1998. One commenter (IV-D-07), the Ohio EPA, documented that they have not submitted a negative declaration letter. The commenter enclosed a copy of a consent order that requires the two MWC facilities in the State to meet the requirements of 40 CFR 60, subpart Cb before being resurrected. Two commenters (IV-D-08/IV-G-05, IV-D-10) representing State agencies provided current annual emissions for their States.

Response: The promulgated Federal plan must apply to all States that do not have an approved State plan in order to assure that all MWCs meet the emission guidelines. When a State plan is approved, the Federal plan will no longer apply. Prior to promulgation, the EPA approved the State plans for Florida, Georgia, Illinois, Minnesota, New York, Oregon, South Carolina and Tennessee. MWC units covered in the approved State plans are listed in the exclusion table in subpart FFF. The exclusion table is provided as a matter of convenience and is not controlling in determining whether a large unit is subject to the Federal plan. As State plans are approved, EPA will periodically amend the exclusion table in § 62.14102 of subpart FFF to identify MWC units covered in EPA approved and currently effective State plans. The emissions data submitted by the commenters is available in the comment letters in docket A-97-45.

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16. ABSTRACT This document addresses the comments raised during the comment period for the Federal Plan Proposal for the Large Municipal Waste Combustors. The rule was adopted November 12, 1998.		
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