ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[Docket 24–7004; FRL–6527–1]

RIN 2060–AF84

Federal Rulemaking for the FMC Facility in the Fort Hall PM–10 Nonattainment Area

AGENCY: Environmental Protection Agency.

ACTION: Notice of proposed rulemaking.

SUMMARY: On February 12, 1999, the Environmental Protection Agency (EPA or we) published a proposed Federal Implementation Plan (February 1999 FIP proposal) to control particulate emissions from an elemental phosphorus facility owned by FMC Corporation (FMC) in southeastern Idaho (FMC facility). The FMC facility is located on the Fort Hall Indian Reservation and in the Fort Hall PM–10 nonattainment area. The purpose of the February 1999 FIP proposal was to propose a control strategy for particulate matter emissions from the FMC facility consisting of emission limits and work practice requirements that constitute reasonably available control technology (RACT) which would, in light of this area's longstanding nonattainment problem, ensure expeditious progress towards improving air quality and attaining the particulate matter standards in order to protect the public health.

EPA believes that comments and additional technical information received during the public comment period require reconsideration of several of the emission limitations and work practice requirements in the February 1999 FIP proposal. EPA is therefore issuing this supplemental proposal to revise certain limited aspects of the February 1999 FIP proposal.

DATES: Written comments, identified by the docket control number ID 24–7004, must be received by EPA on or before February 28, 2000.

ADDRESSES: Comments should be submitted (in triplicate if possible) to: Montel Livingston, SIP Manager, Environmental Protection Agency, Office of Air Quality (OAQ–107), 1200 Sixth Avenue, Seattle, Washington 98101.

FOR FURTHER INFORMATION CONTACT: Steven K. Body, Office of Air Quality (OAQ–107), Environmental Protection Agency, 1200 Sixth Avenue, Seattle, Washington 98101, (206) 553–0782.

SUPPLEMENTARY INFORMATION:

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I. General Information

A. How Can I Get Additional Information or Copies of Support Documents?

1. Electronically. You may obtain electronic copies of this document and the February 12, 1999 FIP proposal from the internet at the following address: http://www.epa.gov/r10earth/. Once there, click on ''Events.'' You can also go directly to the ''Federal Register'' listings at *http://www.epa.gov/fedrgstr/.*

2. In person or by phone. If you have any questions or need additional information about this action, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. In addition, the official record for this document, which is called the ''docket,'' has been established under docket control number ID 24–7004. The docket is available for public inspection and copying from 8:00 a.m. to 5:30 p.m. Eastern Standard Time, Monday through Friday, at EPA's Central Docket Section, Office of Air and Radiation, Room 1500 (M–6102), 401 M Street, SW., Washington, D.C. 20460, and between 8:30 a.m. and 3:30 p.m. Pacific Standard Time, at EPA Region 10, Office of Air Quality, 10th Floor, 1200 Sixth Avenue, Seattle, Washington 98101. A copy of the docket is also available for review at the Shoshone-Bannock Tribes, Office of Air Quality Program, Land Use Commission, Fort Hall Government Center, Agency and Bannock Roads, Fort Hall, Idaho 83203; the Shoshone-Bannock Library, Pima and Bannock, Fort Hall, Idaho, 83203; and the Idaho State University Library, Government Documents Dept., 850 South 9th Avenue, Pocatello, Idaho. A reasonable fee may be charged for copies.

B. How and to Whom Do I Submit Comments?

You may submit comments on this supplemental proposal through the mail or in person. Be sure to identify the appropriate docket control number (*i.e.*, ''ID–24–7004'') in your correspondence.

1. By mail. Submit written comments to: Montel Livingston, SIP Manager, Environmental Protection Agency, Office of Air quality (OAQ–107), 1200 Sixth Avenue, Seattle, Washington 98101.

2. In person or by courier. Deliver written comments to: Montel Livingston, SIP Manager, Environmental Protection Agency, Office of Air Quality (OAQ–107), 1200 Sixth Avenue, Seattle, Washington 98101.

Comments on the February 1999 FIP proposal are discussed in this supplemental proposal only to the extent a particular comment is relevant

to this supplemental proposal. All comments received on the February 1999 FIP proposal and on this supplemental proposal will be addressed when EPA takes final action on the Federal Implemental Plan (FIP).

C. Will There Be a Public Hearing on This Supplemental Proposal?

Very few members of the public attended the public hearing on the February 1999 FIP proposal held on March 18, 1999. Only three members of the public provided comments at the hearing and the comments were provided after extensions of time by the hearing officer. In addition, EPA hopes to expedite the issuance of the final FIP. Therefore, no public hearing will be held to discuss this supplemental proposal unless a member of the public requests in writing that a hearing be held and provides a sufficient reason for holding a hearing. If you wish to request a public hearing, you must submit a written request to Montel Livingston on or before February 11, 2000 at the address given above. If a public hearing is held, it will take place on February 28, 2000, the last day of the public comment period. If you wish to attend the hearing, if one is held, please call Steven Body at (206) 553–0782 to determine if a hearing will be held and to obtain the time and location.

II. Background

FMC produces elemental phosphorus at its facility located on the Fort Hall Indian Reservation in southeastern Idaho near Pocatello (FMC facility). The FMC facility emits over 1400 tons of particulate matter into the atmosphere each year. Numerous exceedances of the National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM–10), in effect as of July 1, 1987, have been and continue to be recorded at monitoring stations located in the Fort Hall PM–10 nonattainment area in the vicinity of the FMC facility (Tribal monitors).

On February 12, 1999, we published a proposed rule containing air pollution emission limitations, work practice requirements, and related monitoring, recordkeeping and reporting requirements designed to control PM–10 emissions from the FMC facility. 64 FR 7308 (February 12, 1999).[1] We held a public workshop on the Fort Hall Indian Reservation on March 4, 1999, to explain the February 1999 FIP proposal and to answer questions on the proposal. On March 18, 1999, we held a public hearing on the February 1999 FIP proposal on the Fort Hall Indian Reservation. Three members of the Shoshone-Bannock Tribes provided oral testimony at the hearing. A copy of the transcript from the public hearing is located in the docket. EPA accepted written comments on the February 1999 FIP proposal until May 13, 1999, and received written comments from six commenters, including FMC and the Shoshone-Bannock Tribes (Tribes). Copies of all written comments are in the docket.

After carefully reviewing the public comments, including additional technical and source test information provided by FMC, we have reconsidered several of the emission limits and work practice requirements in the February 1999 FIP proposal. We are therefore issuing this supplemental proposal to revise certain limited aspects of the original February 1999 FIP proposal, including revisions to mass emission limits and opacity for certain sources and minor changes to monitoring, recordkeeping, and reporting requirements.

Please note that comments on the February 1999 FIP proposal are discussed in this supplemental proposal only to the extent a particular comment is relevant to this supplemental proposal. All comments received on the February 1999 FIP proposal and on this supplemental proposal will be addressed when EPA takes final action on the FIP.

III. How is This Supplemental Proposal Affected by Changes to the Air Quality Standards

The Fort Hall PM–10 nonattainment area was designated as a nonattainment area under the 24-hour and annual PM–10 standards that were adopted on July 1, 1987 (52 FR 24672). On July 18, 1997, we published revisions to both the annual and the 24-hour PM–10 standards and also established two new standards for particulate matter, both of which apply only to particulate matter equal to or less than 2.5 microns in diameter (PM–2.5). See 62 FR 38651. These standards became effective on September 16, 1997. When EPA adopted the revised 1997 particulate matter standards, we provided that the pre-existing 1987 standards for PM–10 would remain in effect until certain conditions specified in 40 CFR § 50.6(d) had occurred. See 62 FR at 38701. Although the pre-existing 1987 PM–10 standards were therefore still in effect at the time of the February 1999 FIP proposal, EPA was in transition towards implementation of the revised particulate matter standards and, thus, anticipated that the 1987 PM–10 standards would likely be phased out and no longer be applicable by the time we took final action on the FIP proposal. Therefore, the control strategy proposed by EPA in the February 1999 FIP proposal was designed to ensure that progress towards maintenance of air quality that protected public health continued during the transition to the implementation of the revised 1997 PM–10 standards and also to assist in bringing the Fort Hall PM–10 nonattainment area into attainment with the revised particulate matter standards as quickly as possible. See 64 FR at 7308, 7310. In the February 1999 FIP proposal, EPA demonstrated that the Fort Hall PM–10 nonattainment area violates the pre-existing 1987 24-hour PM–10 standard. 64 FR at 7317. We also showed that there was a strong likelihood that the area was in violation of the pre-existing 1987 annual PM–10 standard, as well as the less-stringent, revised 1997 24-hour and annual PM–10 standards, although the Tribal monitors had not collected sufficient data at that time to make a definitive determination in that regard. 64 FR at 7317–18. EPA also demonstrated in the February 1999 FIP proposal that implementation of the proposed control strategy was expected to result in attainment of the pre-existing 1987 and revised 1997 24-hour and annual PM–10 standards. 64 FR at 7341–7342.

On May 14, 1999, the U.S. Court of Appeals for the D.C. Circuit issued an opinion in *American Trucking Associations, Inc.* v. *EPA,* 175 F.3d 1027 (''ATA''), which, among other things, vacated the revised PM–10 standards that were published on July 18, 1997 and became effective September 16, 1997. The pre-existing 1987 PM–10 standards were not at issue in this litigation, however, and the Court's decision does not affect the applicability of those pre-existing 1987 PM–10 standards. Those standards continue to be codified at 40 CFR 50.6 and remain in effect for the Fort Hall PM–10 nonattainment area.[2]

[1] EPA published a **Federal Register** notice with minor corrections to the February 1999 FIP proposal on April 13, 1999. 64 FR 17990.

[2] In its decision in *ATA* the Court requested supplemental briefing which, among other things, ''should address the possibility that the previous particulate matter standard will spring back to life in response to our decision'', *Id.* at 1057 n.8. EPA then explained to the Court that the 1987 PM–10 standards remained in effect even after promulgation of the new standards. The Court issued an Order (June 18, 1999), in which it declined to vacate the new PM–2.5 NAAQS, but was silent regarding EPA's explanation of the continued applicability of the 1987 PM–10 NAAQS. EPA believes this is an indication that the Court

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IV. How Does This Supplemental Proposal Change the February 1999 FIP Proposal?

A. Emission Limitations and Work Practice Requirements

1. Mass Emission Limits for Sources Currently at RACT

As stated in the preamble to the February 1999 FIP proposal, we believe that many of the sources at FMC currently employ RACT-level controls. See 64 FR at 7311 and 7325. These include the following point sources: source 5a (east shale baghouse); source 6a (middle shale baghouse); source 7a (west shale baghouse); source 10 (calciner cooler vents); sources 12a and 12b (north and south nodule discharge baghouses); source 15a and 15b (east and west nodule discharge baghouses); source 16a (nodule reclaim baghouse); 17a (dust silo baghouse); sources 18a and 18b (furnace building east and west baghouses); source 18d, 18e, 18f, and 18g (furnace building Medussa Andersen stacks); and source 20a (coke handling baghouse). For these point sources, EPA intended to propose mass emission limits designed to keep PM–10 emissions at current levels and not to require additional controls in order to meet the FIP limits. See 64 FR at 7311 and 7325.

Based on information provided by FMC during the public comment period, we believe that the mass emission limits proposed for the above identified sources were not consistent with current emission levels. In its comments, FMC noted that the proposed mass emission limits were derived from the 1996 emission inventory, which was compiled on the basis of source tests conducted using EPA Method 5, 40 CFR part 60, appendix A (Method 5). Method 5 does not distinguish between PM–10 and total particulate matter and also does not measure condensible particulate matter. Condensible particulate is material that is in the vapor state at elevated stack sampling temperature but, at lower or ambient temperature, condenses to either liquid droplets or solid particulate. Although condensible particulate is not measured using Method 5, it can condense to particulate and be measured at air quality monitoring sites. In the February 1999 FIP proposal, we proposed EPA Methods 201/201A and 202, 40 CFR part 51 appendix M (Methods 201/201A and 202), as the reference test methods for determining compliance with the proposed mass emission limits. Method 201/201A measures all PM–10 except condensible PM–10 and Method 202 measures condensible PM–10. Thus, FMC asserted, the proposed reference test method requires the inclusion of more particulate matter (condensible PM–10) than originally considered when developing the 1996 emission inventory and establishing the proposed emission limits.

To support its contention that it cannot comply with the proposed mass emission limits for the sources identified above without installing additional controls, FMC submitted the results of source tests conducted after publication of the February 1999 FIP proposal. These source test results show that, using Methods 201/201A and 202, FMC would be in violation of many of the proposed emission limits in the February 1999 FIP proposal because of the difference in the test method used to establish the emission limits (Method 5) and the reference test method proposed in the FIP (Methods 201/201A and Method 202). This is clearly contrary to EPA's intent in proposing the mass emission limits for these sources. To address this issue, FMC requested that the reference test method be only Method 201/201A and that Method 202 be performed on each source for informational purposes only. FMC also requested that the definition of PM–10 or PM–10 emissions be revised to expressly state that it does not include condensible particulate matter, unless otherwise specified in the FIP.

Because the mass emission limits for the sources identified above were derived from an emission inventory that did not include condensible PM–10, we believe it is appropriate that the proposed mass emission limits not apply to condensible PM–10 and that the reference test method for these mass emission limits be consistent with the method used to derive the emission limits. In this supplemental proposal, we are therefore proposing to include only Method 201/201A as the reference test method for the sources identified above. We have considered the alternative approach of establishing mass emission limits for these sources that includes condensible PM–10. We have decided not to pursue this option for the reasons presented below.

The only information we have on condensible PM–10 emissions from the FMC facility is from the limited source test data recently conducted by FMC and submitted with FMC's response to comments. This information includes one stack test using Methods 201/201A and 202 consisting of three runs each for each of these sources. The test results are puzzling in some respects. We would generally expect condensible particulate to be present in emissions from hot or heated emission sources, such as combustion or furnace emission releases, but would not expect condensible particulate to be present in sources which are at ambient temperature. The source test results provided by FMC show condensible PM–10 emissions were high for most sources at FMC, including material handling of dry cold aggregate (shale, briquettes, coke, and nodules) from which no condensible particulate emissions would normally be expected because the material is already at ambient temperature. In addition, the range of reported condensible PM–10 varied considerably over the three test runs conducted for each source. EPA believes that attempting to establish emission limits that include condensible PM–10 emissions based on this limited set of data could result in less stringent limits. Because the intent of the FIP for these sources is to maintain emissions at current levels, we would need to set emission limits that would account for the wide variation in condensible emissions from these sources and set the limits at the high range of the test results.

We recognize that by establishing emission limits that do not apply to condensible PM–10 emissions, condensible PM–10 from these sources would not be directly regulated by the FIP. We nonetheless believe that this approach will not interfere with the effectiveness of the control strategy for attaining the PM–10 standard for several reasons. First, it is very unlikely that fugitive emissions from shale, briquette, coke, or nodule handling, where the material is stored at ambient temperature, contain significant condensible PM–10 because there is no further cooling process that would condense additional particulate. Second, it is not possible for FMC to change the ratio of non-condensible to condensible particulate for these sources. Therefore, establishing an emission limit that limits the amount of non-condensible PM–10 emissions from a given source to current emission levels should likewise limit condensible PM–10 emissions from that source at current levels.

We therefore believe that the more prudent course at this time is to modify the mass emission limits for these sources to exclude condensible PM–10 and to modify the reference test method so that it includes only non-condensible PM–10. In order to ensure the continued collection of information on condensible PM–10 emissions from point sources at the FMC facility and to

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was unwilling to disturb that aspect of the Agency's July 18, 1997 rule.

allow for the further analysis of this data, we are proposing to require FMC to conduct Method 202 concurrently with Methods 201/201A for informational purposes. This will allow better evaluation of the extent to which condensible PM–10 is emitted from the FMC facility and whether limitations that include condensible emissions are necessary and appropriate. If we later determine that the control strategy in this FIP proposal is not sufficient to attain the PM–10 NAAQS, we will consider the extent to which condensible PM–10 emissions from the FMC facility contribute to the nonattainment problem and, if necessary and appropriate, propose additional control measures.

As stated above, FMC also commented that, for purposes of this FIP, EPA should define PM–10 emissions to include only non-condensible PM–10. FMC presumably urges this change to make absolutely clear that condensible PM–10 will not be included in determining compliance with mass emission limits for these sources. We agree with the end result sought to be accomplished by FMC, but do not agree that a change to the definition of ''PM–10'' or ''PM–10 emissions'' is appropriate because those terms are used in other contexts where condensible PM–10 emissions should be considered. To account for FMC's concern, we instead propose to revise Table 1 to make clear that the mass emission limitations for these sources do not apply to condensible particulate matter.

The source test results provided by FMC in response to the February 1999 FIP proposal also show that for some of the sources identified above, the 1996 emission inventory on which the February 1999 FIP proposal was based overestimates emissions of non-condensible PM–10. Because the emission limits for these sources in the February 1999 FIP proposal were derived from the 1996 emission inventory, the proposed emissions limits are therefore well above what the recent source tests show to be representative of actual worst case emissions of non-condensible PM–10 from these sources. As stated above, for those sources that we currently believe employ RACT-level controls, EPA intends to propose mass emission limits designed to keep PM–10 emissions at current levels. Based on the recent sources test data provided by FMC, we are therefore proposing to reduce the mass emission limits for the following sources from the levels identified in the February 1999 FIP proposal as shown below:

Source	Limit in 2/99 proposal (lbs/hr)	Proposed limit (lbs/hr)
Middle shale BH (source 6b)	0.6	0.30
N. discharge BH (source 12a)	2.7	0.20
S. discharge BH (source 12b)	2.7	0.20
E. nodule BH (source 15a)	2.0	0.50
W. nodule BH (source 15b)	1.6	0.50
Nodule reclaim BH (source 16a)	0.9	0.20
Dust silo BH (source 17a)	3.3	0.15
E. BH (furnace bldg) (source 18a)	1.5	0.75
W. BH (furnace bldg) (source 18b)	1.2	0.75
Furnace #1 MA (source 18d)	4.8	2.0
Furnace #1 MA (source 18d)	4.8	2.0
Furnace #2 MA (source 18e)	4.8	2.0
Furnace #3 MA (source 18f)	4.8	2.0
Furnace #4 MA (source 18g)	4.8	2.0

2. Calciner Scrubbers (Source 9)

The February 1999 FIP proposal proposed a mass concentration limit for the calciner scrubbers (source 9) of 0.005 grains per dry standard cubic foot (gr/dscf). During the public comment period on the February 1999 FIP proposal, FMC argued that the proposed emission limit was not achievable because the February 1999 FIP proposal underestimated existing emissions from the calciner scrubbers and underestimated the control efficiency of the existing control system. The end result, according to FMC, is an emission limit that is not achievable by FMC even after the installation of RACT-level controls and is inconsistent with the performance criteria for the calciner scrubbers agreed to by EPA and FMC in the consent decree that was lodged in the United States District Court for the District of Idaho on October 16, 1998, regarding alleged violations of the Resource Conservation and Recovery Act at the FMC facility (RCRA Consent Decree).[3] After careful consideration of the issues, we believe that the proposed emission limit for the calciner scrubbers of 0.005 gr/dscf must be revised.

[3] The RCRA Consent Decree was entered by the Court on July 14, 1999. A copy of the RCRA Consent Decree and the order of entry is in the docket.

a. Emissions Estimate

The 1996 emission inventory estimated existing emissions from the calciner scrubbers at 1204 pounds per day or 6.27 pounds per hour from each of the eight calciner scrubbing stacks.[4] This estimate was based on a grain loading of 0.013 gr/dscf from each calciner scrubber stack at a flow rate of 58,000 dscfm. This grain loading and flow rate underestimate current PM–10 emissions from the calciner scrubbers.

During the public comment period on the 1996 FIP proposal, FMC submitted information from 219 source tests of the outlet from the calciner scrubbers conducted from April 1992 to June 1998 using EPA Method 5. As discussed above, this test method does not measure condensible particulate matter. The scrubber outlet grain loading during these tests ranged from 0.009 to 0.034 gr/dscf, with an average of 0.019 gr/dscf. The flow rate ranged from 24,400 to 40,800 dscfm, with an average of 34,200 dscfm. FMC also submitted the results of 18 source tests of the inlet to the scrubbers using, EPA Method 201/201A and Method 202, and 11 tests of the outlet from the scrubbers conducted during 1998 and 1999 using EPA Method 5 and Method 202.[5] The 1998–1999 test results of the outlet from the calciner scrubbers using Method 5 only ranged from 0.014 to 0.021 gr/dscf, with an average of 0.017 gr/dscf. These results are generally consistent with the results of the source tests conducted with Method 5 from April 1992 to June 1998 (an average of 0.017 gr/dscf compared to an average of 0.019 gr/dscf), although the range of the recent tests is narrower. This narrower range is likely due to the fact that the data set of the more recent tests is smaller than for the earlier tests. The 0.013 gr/dscf used for compiling the 1996 emission inventory for the calciner scrubbers does not appear to be representative of reasonable worst case emissions from this source and in fact is not even representative of average emissions from this source.[6] Instead, it significantly underestimated reasonable worst case emissions from this source.

The flow rate of 58,000 dscfm relied on in compiling the 1996 emission inventory also was in error, which

[4] There are two calciners at FMC, each of which has two high energy John Zink scrubbers, and there are two stacks on each scrubber, adding up to eight stacks on the calciners.

[5] Method 5 is used in lieu of Method 201/201A for measuring emissions from the outlet from the calciner scrubbers because of the presence of entrained water drops. See 64 FR 7327.

[6] EPA is unable to reconstruct at this time how the 0.013 gr/dscf was settled on as the basis for the 1996 emission inventory.

appears to have resulted from an error in calculating the total number of calciner scrubber stacks and an oversight by FMC in its review of the emission inventory for accuracy. The error in the estimate of flow rate would overestimate current worst case emissions from this source. The combined effect of these errors is that the 1996 emission inventory underestimated reasonable worst case PM–10 emissions from the calciner scrubbers (excluding condensible PM–10).

Another factor that led to the underestimation of total PM–10 emissions from the calciner scrubbers in the 1996 emission inventory is that the emission estimate was based on source test data that did not measure condensible PM–10 emissions. As discussed above, the 1996 emission inventory was based on source tests conducted with EPA Method 5, which does not measure condensible PM–10 emissions. The more than 200 source tests on the calciner scrubbers conducted by FMC from April 1992 to June 1998 were also conducted with Method 5 and did not include condensible particulate matter. The more recent source tests conducted during 1998–1999 used EPA Method 202, as well as Method 5. Method 202 does measure condensible particulate matter. The test results of the outlet from the calciner scrubbers using Method 202, which for the first time measured condensible PM–10 emissions from this source, ranged from 0.006 to 0.028 gr/dscf, with an average of .012 gr/dscf. Total PM–10 emissions ranged from 0.021 to 0.043 gr/dscf, with an average of 0.029 gr/dscf. Thus, it appears that condensible PM–10 emissions account on average for approximately 40% of the total PM–10 mass from the calciner scrubbers.

After consideration of all information regarding emissions from the calciner scrubbers, including the information before EPA at the time the 1996 emission inventory was developed, the historical source test data collected by FMC from April 1992 to June 1998 using EPA Method 5, and the recent source tests conducted by FMC in 1998–1999 using EPA Method 5and Method 202, EPA believes that a more accurate estimate of current reasonable worst case of PM–10 emissions from the calciner scrubbers is 12.6 pounds per hour from each calciner scrubber, including condensible PM–10 emissions. This estimate is based on an average gas flow rate of 34,200 dscfm and on a reasonable worst case scrubber outlet grain loading of 0.043 gr/dscf using Method 5 and Method 202. This results in emissions from all eight calciner stacks of 2419 pounds per day or 200 tons per year.

b. Evaluation of Alternative Control Technology

In the February 1999 FIP proposal, EPA evaluated three alternative control technologies for increasing emission reductions from the calciner scrubbers: steam injection with high energy wet scrubbers, spray tower with hydrosonic scrubbers, and replacement of the existing scrubbing system with a baghouse. Replacement of the existing scrubbing control system with a baghouse was expected to have the highest emission reduction of any of the alternatives considered. 64 FR 7332. EPA was concerned, however, about the safety of using a baghouse on the calciner scrubbers because polonium-210 (Po–210) would be captured in the baghouse dust and retained on the baghouse walls, hoppers, and bags, creating a health and safety risk for workers. 64 FR 7332. In addition, the costs of installing baghouses was estimated to be $1.7 million with annual operating costs of up to $1.28 million, which resulted in a very high cost effectiveness. EPA continues to believe that replacement of the existing scrubbing system with a baghouse is not technologically or economically feasible and therefore does not represent RACT-level control for this source.

Of the other alternatives considered by EPA and discussed in the February 1999 FIP proposal, EPA estimated that steam injection would result in emission reductions of approximately 23% over current emissions, achieving a grain loading standard of 0.01 gr/dscf, and that a spray tower would result in emission reductions of approximately 62%, [7] achieving a grain loading standard of 0.005 gr/dscf. As discussed above, the 1996 emission inventory underestimated emissions from the calciner scrubbers. This underestimation of emissions prior to implementation of additional controls would similarly underestimate the grain loading standard that each alternative control system (steam injection or spray towers) could be expected to achieve. There is no reason to expect that steam injection would perform better than spray towers now that emissions from the calciner scrubbers are higher than originally estimated. In other words, EPA continues to believe that spray towers will be able to achieve a higher percentage of emission reductions than steam injection.[8] Therefore, EPA continues to believe that modification of the existing calciner scrubbers by installation of a spray tower represents RACT-level control for this source.

c. Emission Limit and Control Efficiency Requirements

In the February 1999 FIP proposal, EPA determined RACT-level controls (installation of spray towers in front of the hydrosonics) could achieve a grain loading of 0.005 gr/dscf at the design flow rate, estimated to be 58,000 dscfm, and proposed this emission limit as RACT for the calciner scrubbers. As discussed above, because reasonable worst case emissions from the calciner scrubbers were estimated at 0.013 gr/dscf in the 1996 emission inventory, achieving a grain loading of 0.005 gr/dscf was estimated to result in an emission reduction of 62%. In the February 1999 FIP proposal, EPA estimated the control efficiency of the current configuration of the scrubbing control system at 60%. Given that the modifications representing RACT were expected to result in a 62% reduction in emissions, the overall control efficiency of RACT-level controls was predicted to be approximately 85% (60% control efficiency of existing control system plus 62% additional reductions of the remaining 40% of emissions). As discussed in the February 1999 FIP proposal, in the RCRA Consent Decree, FMC agreed to spend $2.5 million for the purchase, installation, modification, testing, and operation of the necessary equipment for enhancing the performance of the existing scrubbing system on the calciners to achieve an overall control efficiency of 90%, with Methods 201/201A and 202 as the reference test methods. 64 FR 7332. EPA therefore determined that FMC's commitment under the RCRA Consent Decree for the calciner scrubbers would be equivalent to RACT-level controls. We continue to believe that enhancing the scrubber control system to achieve

[7] The February 1999 FIP proposal estimated the emission reductions from the addition of a spray tower at 75%. This number appears to have resulted from a calculation error. A reduction in emissions from 0.013 gr/dscf to 0.005 gr/dscf results in emission reductions of 62% over current levels.

[8] Two other alternative technologies considered by EPA and discussed in the docket, but not discussed in the February 1999 FIP proposal are lime injection and installation of waste evaporators. Lime injection has performance characteristics similar to steam injection with respect to PM–10, but has the added benefit of reducing sulfur dioxide emissions. The costs for lime injection, however, are almost three times higher than steam injection per ton of particulate removed. Installing water evaporators on the recirculated scrubber water to reduce solids content also is expected to reduce PM–10 emissions to the same extent as steam injection. As stated above, EPA believes spray towers can achieve greater emission reductions at a lower cost.

a control efficiency of at least 90% constitutes RACT-level controls.

We also believe, however, that the emission limit for the calciner scrubbers must be revised because the emission limit of 0.005 gr/dscf was based on an underestimation of current reasonable worst case PM–10 emissions from the calciner scrubbers, both because the previous estimate was based on a grain loading standard that was not representative of reasonable worst case conditions and because the estimate did not include condensible particulate matter in the exhaust. Because the performance requirement in the RCRA Consent Decree applies to all PM–10, including condensible PM–10 emissions, and because this is a high temperature combustion source, EPA believes it is appropriate that the emission limit for the calciner scrubbers apply to all PM–10, including condensibles.

In the February 1999 FIP proposal, we estimated that the current configuration of the calciner scrubbers resulted in a control efficiency of 50 to 60% based on information previously provided by FMC. Because no source tests had ever been conducted on the inlet to the calciner scrubbing system, the estimate of 50% to 60% control efficiency of the existing control system was based on best engineering judgement (of both FMC engineers and EPA), and not on actual source test data. As discussed above, the source tests conducted by FMC in 1998 and 1999 measured PM–10 emissions at both the inlet to and outlet from the calciner scrubbing system. This source test data indicates that the current scrubbing control system achieves a control efficiency of approximately 80%, much higher than previously understood. [9]

Increasing the control efficiency of the calciner scrubbing system from 80% to 90% results in an emission reduction of 50%. In proposing an emission limit for the calciner scrubbers that represents RACT, EPA believes it is appropriate that the reasonable worst case grain loading standard be reduced by 50%. The highest outlet grain loading of all PM–10, including condensibles, is 0.043 gr/dscf. A reduction of 50% would result in a grain loading of 0.022 gr/dscf. EPA therefore proposes that the calciner scrubbing system be required to achieve a grain loading standard of 0.022 gr/dscf, effective December 1, 1999, using Method 5 (with all particulate matter collected counted as PM–10) and Method 202 as the reference test methods. EPA is also proposing to establish a flow rate that is never to be exceeded based on the highest flow rate measured by FMC between 1992 and 1998 of 40,800 dscfm. These limits will are expected to achieve a reduction in emissions from the calciner scrubbers of 50% over current levels.

As discussed above and in the February 1999 FIP proposal, FMC agreed in the RCRA Consent Decree to achieve a control efficiency from the modified calciner scrubbing system of at least 90% under all operating conditions. To ensure that the modified scrubbing control system is being properly operated and maintained at all times, EPA also proposes to require that the pollution control equipment on the calciner stacks achieve a 90% control efficiency under all operating conditions, regardless of inlet loadings, production, and other variations in operations. The requirement to achieve a 90% overall control efficiency would be based on a reference test method that requires simultaneously measuring emissions at the inlet and outlet of the air pollution control equipment. The requirement for simultaneous testing is designed to reduce errors that could occur due to variability in emissions among the five test points (as stated above, there are two John Zink high energy scrubbers on each of the two calciners and two stacks per scrubber, resulting in one inlet test point and four outlet test points for each calciner). EPA proposes Methods 201 and 202 for the inlet to the calciner scrubbing system and Method 5 (with all particulate counted as PM–10) and Method 202 for the outlet from the system.

During the public comment period on the February 1999 FIP proposal, the Tribes commented that they supported the emission limitation of 0.005 gr/dscf for the outlet of the calciner scrubbing system in the February 1999 FIP proposal. The Tribes have expressed concern that, because the proposed FIP controls are based on the emission inventory, if the emission inventory has underestimated emissions by not including condensible particulate matter, revised emission limits might be inadequate to attain the particulate matter standards. For the reasons discussed above, we believe the emission limit for the calciner scrubbers of 0.005 gr/dscf proposed in the February 1999 FIP proposal is in error and must be revised. We also believe that the requirement to meet the revised limit of 90% control efficiency, but at no time to exceed 0.022 gr/dscf, represents RACT for this source. Moreover, EPA does not believe that the error in the estimation of emissions from the calciner scrubbers in the February 1999 FIP proposal and the increase in the emissions limit for the calciner scrubbers that would occur with this supplemental proposal will interfere with or delay attainment of the particulate matter standards. Rather, as discussed in more detail in section V.C. below, EPA believes that implementation of the emission limits in the February 1999 FIP proposal, as revised by this notice, will result in attainment of the PM–10 standards as expeditiously as practicable.

3. Calciner Cooler Vents (Source 10)

In the February 1999 FIP proposal, EPA stated that the calciner cooler vents currently employed RACT-level controls. We therefore proposed an emission limit for this source that we believed would keep emissions from the calciner cooler vents at current levels. 64 FR at 7324. As stated above, the emission inventory from which the proposed emission limits were derived was, for most sources, based on source tests using Method 5. Method 5 measures total suspended particulate, not just PM–10, and does not include condensible particulate matter. To determine the PM–10 emissions from the Method 5 data for a particular source for the 1996 emission inventory, EPA estimated, based on information provided by FMC, the percentage of total particulate matter from the source that was less than ten micrometers in diameter (PM–10).[10] Based on information provided by FMC, we estimated that 10% of the total particulate matter emitted from the calciner cooler vents was PM–10.[11] From this information, EPA determined that the current hourly emission rate of PM–10 from each calciner cooler vent was 2.0 pounds per hour (lb/hr) of PM–10. 64 FR at 7354 (proposed Table 1 to 40 CFR 52.676 (source 10)). EPA therefore proposed this emission rate as the emission limit for this source.

In its comments on the February 1999 FIP proposal, FMC asserted that, by estimating that only 10% of the total particulate matter from the calciner cooler vents was PM–10 in the 1996 emission inventory, EPA significantly

[9] As discussed above, EPA believes that the 1998–1999 source test results provided by FMC are reliable because the Method 5 results (excluding the condensible fraction) are consistent with the results of the 219 source tests conducted from April 1992 to June 1998, which also excluded the condensible fraction.

[10] As stated above, neither the Method 5 data, nor EPA's estimation of PM–10 emissions from the Method 5 data included condensible particulate matter.

[11] FMC had advised EPA at the time the 1996 emission inventory was prepared that only 7.5% of total particulate emissions from this source was PM–10. EPA assumed 10% to provide for a margin of error.

underestimated PM–10 emissions from this source. Based on the source tests conducted by FMC after the February 1999 FIP proposal, it appears that on average 38% of total particulate matter from the calciner cooler vents is comprised of PM–10, and that 59% of the PM–10 is condensible particulate matter. The average emission rate across the four calciner cooler vents is 2.9 lb/hr of PM–10 (excluding condensible PM–10), with a range of 2.0 to 4.0 lb/hr, depending on the stack. FMC commented that the mass emission limit for the calciner cooler stacks (source 10) must be revised because current source tests show that FMC cannot comply with the proposed emission limit for this source even when condensible PM–10 is excluded from the limit. FMC noted that EPA stated in the February 1999 FIP proposal that the calciner cooler vents currently employ RACT-level controls and that the intent of the proposed mass emission limit was to keep emissions at current levels.

After reviewing the information provided by FMC in its comments on the February 1999 FIP proposal, EPA believes that the emission limits for the calciner cooler stacks should be revised to account for this new source test data. EPA is therefore proposing an emission limit for each calciner cooler stack of 4.4 lb/hr of PM–10 (which is the maximum emission rate reported by FMC plus a margin for error), excluding condensible PM–10. Method 201/201A is proposed as the reference test method.

4. Phosphorous Loading Dock (Phos Dock) Scrubber (Source 21a)

We proposed a 0.007 gr/dscf emission limit in the February 1999 FIP proposal for the phos dock scrubber. This limit was designed to keep emissions at the levels in the 1996 emission inventory. As stated in the February 1999 FIP proposal, the additional controls FMC has agreed to undertake for the phos dock area are designed to reduce emissions due to ''upset'' conditions. Emissions from ''upset'' conditions were not included in the 1996 emission inventory as discussed in our earlier proposal. 64 FR at 7341. During the public comment period on the February 1999 FIP proposal, FMC requested that the emission limit for the phos dock scrubber exclude condensible PM–10 emissions because, as discussed above in section IV.A.1., the emission estimate for this source in the 1996 emission inventory was based on source tests conducted with Method 5. For the reasons discussed above in section IV.A.1., we agree that the emission limit for the phos dock scrubber should exclude condensible PM–10 emissions and that the reference test method for this source should be Method 201/201A. Method 202 would be required to be conducted for informational purposes.

The new source test data for the phos dock scrubbers submitted by FMC in response to comments on the February 1999 FIP proposal indicated that the worst case daily PM–10 emissions (excluding condensibles) from the phos dock scrubber were 0.003 gr/dscf. This emission rate is less than what is presented in the 1996 emission inventory. Accordingly, as also discussed above in section IV.A.1., EPA proposes that the emission limit for the phos dock scrubber be reduced from 0.007 gr/dscf to 0.004 gr/dscf with Method 201/201A as the reference test method.

5. Excess CO Burner (Source 26b)

In the RCRA Consent Decree, FMC committed to replacing the existing elevated secondary condenser flare (elevated flare) and ground flare with new technology, which is referred to as the excess CO burner. The excess CO burner will burn the phosphorus in the excess carbon monoxide (CO) gas stream in an enclosed combustion chamber and duct exhaust gasses to a scrubber to remove phosphorus pentoxide. FMC committed to achieving a 95% control efficiency for PM–10 in the RCRA Consent Decree. In the February 1999 FIP proposal, EPA stated that it believed this system constituted RACT for this source. 64 FR 7332–7333. During the summer of 1999, FMC built, operated, and tested a pilot excess CO burner demonstration project. This project is approximately 1/80 scale of the excess CO burner FMC intends to build to satisfy its obligations under the RCRA Consent Decree. Based on operating and testing of the excess CO burner pilot project, on November 1, 1999, FMC provided EPA with summary information on current emissions, problems with reference test methods, PM–10 removal efficiencies, and other performance and durability information. A summary of the discussions with FMC at the November 1, 1999, meeting, as well as a copy of the information provided by FMC to EPA at the meeting, is in the docket.

a. Emissions From the Existing Elevated Flare and Ground Flare

The existing elevated flare and ground flare, to which excess CO at the FMC facility is currently directed, emit combustible gas mixtures. There is no EPA approved test method for measuring emissions from this source and, because of the nature of the emissions, it has not previously been possible to directly measure emissions from this source. The difficulty in accurately measuring emissions from this source has been compounded by the fact that emissions from this source vary tremendously (by orders of magnitude) throughout a 24-hour period and from week to week based on plant operating conditions. The emission estimate of 3109 pounds per day (2281 from the ground flare and 828 from the elevated flare) contained in the 1996 emission inventory that served as a basis for the February 1999 FIP proposal was derived from theoretical chemical reaction calculations and assumptions of worst case operating conditions. Those calculations also accounted for the oxidation of phosphorus to phosphorus pentoxide (P205) and reported mass emissions as P2O5.

In its comments on the February 1999 FIP proposal, FMC asserted that emissions from the existing elevated flare and ground flare are far greater than estimated in the 1996 emission inventory—as much as four times higher. FMC did not provide any documentation along with its comments, however, to justify its claim that the estimate for these sources in the 1996 emission inventory was in error.

The construction of the excess CO burner pilot plant has allowed FMC for the first time to conduct actual source tests on PM–10 emissions generated from the excess CO at the facility. FMC used the results of their source testing of the inlet to the excess CO burner to estimate emission from the current elevated secondary condenser flare and CO ground flare. This recent source testing has provided more accurate information on the levels of particulate emissions from this source and shows that previous emission estimates underestimated PM–10 emissions from the excess CO because of the chemical composition of the emission stream.

Particulate in the excess CO exhaust gas consists primarily of oxidized phosphorus compounds, including phosphorus pentoxide and phosphoric acid. Phosphorus pentoxide will rapidly hydrolyze to phosphoric acid in the presence of water vapor. Phosphoric acid is a strong desiccant and its mass continues to increase when exposed to water vapor. FMC contends that this phenomenon was highlighted when they tried to equilibrate source test filters in the desiccator and weigh to a constant weight. The mass of the filter from a reference test method source test continues to increase as water is absorbed from the atmosphere, even in the desiccator and it cannot be driven off by heating the filters to 220 degrees Fahrenheit. This same phenomenon

occurs in exhaust gas streams and in the atmosphere.

Emissions in the elevated flare and ground flare while in the stack are mostly pure phosphorus. The phosphorus burns immediately upon contact with air to form P2O5 and further chemical reactions continue to occur in the atmosphere to form more complex phosphorus compounds These compounds end up on the ambient sampler filter media and are measured for determining ambient PM–10 levels. The excess CO burner takes the same phosphorus laden gas stream, burns it to P2O5, hydrolyzes to phosphoric acid, possibly undergoes other reactions, and emits a complex mixture of phosphoric acid and other compounds. Essentially the excess CO burner will contain the chemical reactions that now occur in the atmosphere and scrub them in the Andersen filter system.

Based on the information provided by FMC at the November 1, 1999, meeting, it appears that previous estimates of PM–10 emissions generated by the excess CO burned in the elevated flare and ground flare did not account for increased mass due to absorption of water vapor in the atmosphere as emissions were transported from FMC to the monitoring sites. FMC presented a chart of phosphorus and the mass conversion factor after exposure to water vapor. One pound of phosphorus can result in particulate that is 4.3 times greater in mass, or 4.3 pounds. EPA's previous estimates of emissions calculated the mass of P2O5 emitted from the elevated flare and ground flare and did not account for an increase in mass due to absorption of the water vapor.

Based on the source test data from the pilot project provided by FMC, FMC estimates worst case daily emissions from the elevated secondary condenser flare and CO ground flare of 10,543 pounds per day. This is more than three times as high as the estimate of 3109 pounds per day that EPA relied on the February 1999 FIP proposal. Both methods used the same operating conditions for calculating 24-hour worst case emissions (one calciner down and two hours of hot flush in a 24 hour period). EPA believes these new results are far superior to the original emission estimates made by EPA and presented in the February 1999 FIP proposal, because FMC's revised estimates account for some water vapor that is in the combustion air. It is important to emphasize that the revision of the emission estimate for this source does not reflect an increase in emissions from this source since 1996, but instead, reflects a more accurate estimate of what has been and is currently being emitted from the elevated flare and ground flare.

b. Mass Emission Limit and Control Efficiency Requirements

We proposed a mass emission limit for the excess CO burner of 6.5 lbs/hour in the February 1999 FIP proposal. During the public comment period on the proposal, FMC commented that the proposed limit is inconsistent with, and much more stringent than the performance criteria FMC agreed to meet for the excess CO burner in the RCRA Consent Decree. FMC contended that this inconsistency was due in part to the fact that the emission limit was derived using an incorrect baseline emission inventory which greatly underestimated current emissions from the elevated flare and ground flare that the excess CO burner will replace. The error in the estimation of emissions was compounded, according to FMC's comments on the February 1999 FIP proposal, by applying an oversimplified mathematical calculation and requiring compliance testing during worst case conditions. The end result, according to FMC, is an emission limit that is technologically infeasible. In support of this position, FMC submitted a letter from Andersen 2000, Inc, (Andersen) the manufacturer of the Andersen CHEAF scrubber, the control equipment for the excess CO burner under consideration by FMC. Andersen's May 7, 1999, letter to FMC stated that the Andersen CHEAF scrubber cannot achieve the proposed emission limit of 6.5 lbs/hour from an emission source with oxidized phosphorus present, such as the excess CO burner.

In commenting on the February 1999 FIP proposal, FMC also noted that the excess CO burner involves novel applications of existing technology and is still in the research and development stage. Because of the difficulty of estimating current emissions from the existing elevated secondary condenser flare and the existing CO ground flare and because of the difficulty of forecasting actual emissions from the excess CO burner upon completion, FMC urged EPA in its comments to establish a control efficiency requirement rather than a mass emission limit for the excess CO burner or to defer establishing any requirements for the excess CO burner until the source is constructed and tested.

In the RCRA Consent Decree, FMC committed to achieving a 95% control efficiency for PM–10 for the excess CO burner. As stated in the preamble to the February 1999 FIP proposal, we intended that the mass emission limit in the February 1999 FIP proposal for the excess CO burner be consistent with the performance measures agreed to by the United States and EPA in the RCRA Consent Decree. 64 FR at 7332–33.

Based on the information provided during the public comment period and in consultation with others at Region 10, EPA circulated a letter to all those who commented on the February 1999 FIP proposal. The letter was dated June 8, 1999, and was addressed ''To whom it may concern.'' A copy of the letter is in the docket. In the letter, EPA stated that based on our preliminary review of the public comments received with respect to two sources at the FMC facility, EPA was considering changes to the mass emission limits for the calciner scrubbers and the excess CO burner. With respect to the excess CO burner, the letter stated that EPA was considering establishing an emission limit for the excess CO burner that required FMC to achieve a control efficiency of 95% at all times, consistent with the RCRA Consent Decree. EPA further stated that it believed it was essential to establish an upper limit on emissions from the excess CO burner to ensure that an increase in production does not result in an increase in emissions that could interfere with attainment of the PM–10 NAAQS. Although the letter from Andersen stated that the excess CO burner could not achieve an emission limit of 6.5 pounds per hour, Andersen did state that it would guarantee an emission limit of 15.81 pounds per hour of PM–10 (including condensible PM–10 emissions) from the excess CO burner using Methods 201/201A and 202, based on the design parameters provided by FMC. Based on the Andersen letter, the June 8, 1999 ''To whom it may concern'' letter stated that EPA was also considering a requirement that the emissions from the excess CO burner also not exceed 15.81 pounds per hour.

As stated above, FMC conducted numerous source tests on the excess CO burn pilot plant over the course of the summer of 1999. During the November 1, 1999, meeting, FMC presented a summary of the source test results and expressed a concern that the excess CO burner would not be able to comply with a mass emission limit of 15.81 pounds per hour and might not be able to achieve a control efficiency of 95% at all times, as outlined in the June 8, 1999 ''To whom it may concern'' letter from EPA.

i. Mass Emission Limit

With respect to the mass emission limit, FMC stated that as a result of the recent source tests conducted on the inlet to the excess CO burner, current

emissions from the secondary elevated flare and CO ground flare are significantly higher than previously estimated. This issue is discussed in more detail above. The guarantee in the Andersen letter of 15.81 pounds per hour most likely did not completely anticipate the water vapor issue. Based on the data provided by FMC in the November 1, 1999, meeting it appears that the maximum emission rate from the excess CO burner will occur during a hot flush and will result in a mass loading at the inlet of the scrubber of 472 pound per hour. This calculation is based on excess CO burner design capacity, a grain loading during a hot flush of 2.0 gr/dscf. With a 95% control efficiency, the resulting maximum hourly emission rate would be 24 pounds per hour. Because the hot flush generally occurs for no more than two hours and the source test consists of three one hour runs, generally separated by a period of time necessary to set up for the next run, EPA believes that a maximum emission limitation of 24 pounds per hour, as measured by the reference test methods, along with a control efficiency requirement of 95%, represents RACT for the excess CO burner. The control efficiency requirement, discussed below, will assure that emissions are minimized on a continuous basis during normal operation of four furnaces and two calciners.

ii. Control Efficiency Requirement

With respect to the control efficiency requirement, FMC presented a table of scrubber inlet loadings comprised of 29 individual tests. FMC also presented a graph showing the test run number and the overall system PM–10 removal efficiency (%) for each run. The early runs show performance of less than 95% but are characterized by wide variability. These results are unreliable because of a problem with the test method used, which is discussed in more detail below. The last four runs presented on the graph show control efficiencies of between 90 to 95%, but the corresponding inlet and outlet loading results are not presented on this graph. The manner in which FMC conducted the source testing on the pilot plant appears to have underestimated the removal efficiency of the control device on the excess CO burner pilot project. The excess CO burner pilot project burns the CO gas in an enclosed burner with excess air. Burner exhaust passes through ducts to a water quench to cool the gas stream and which saturates the gas stream with water vapor prior to entering the Andersen scrubber. The sampling protocol has two problems. Most significantly, the sampling ports for the inlet to the scrubber are upstream of the water quench. And secondly, but of less significance, the combustion air contains water vapor and the inlet sampling ports are upstream of rather long ducting before reaching the scrubber, thus allowing residence time for any water vapor to react with the P2O5 before being sampled at the outlet. There appears to be more than 20 feet (perhaps as much as 40 feet) of ducting before the water quench and the control device. If the inlet to the control device had been sampled after the water quench, EPA believes the control efficiency would have achieved 95%. The true performance of the control device on the excess CO burner appears to have been significantly underestimated because of where FMC measured the inlet to the control system.

iii. Reference Test Methods

The information provide by FMC at the November 1, 1999, meeting also identified an apparent problem with Method 201/201A and Method 5, the reference test methods proposed in the February 1999 FIP proposal and the June 8, 1999 ''To whom it may concern'' letter for the excess CO burner. According to FMC, because of the chemical composition of the emission stream, conducting performance tests with these EPA reference test methods, without modification, are unreliable and overestimate PM–10 emissions. FMC contends that some modifications to the proposed reference test methods (Methods 201/201A and 5) are needed for the excess CO burner. As discussed above, particulate in the excess CO exhaust gas consists primarily of oxidized phosphorus compounds, including phosphorus pentoxide and phosphoric acid. Phosphorus pentoxide will rapidly hydrolyze to phosphoric acid in the presence of water vapor. Phosphoric acid is a strong desiccant and its mass continues to increase when exposed to water vapor.

Reference Method 5 and Method 201/201A provide filter handling procedures after sample collection. See 40 CFR Part 60, Appendix A, Method 5 , section 4.3, and 40 CFR Part 51, Appendix M, Method 201, section 4.2.1. This procedure requires storing filters in an enclosure with silica gel desiccant (desiccator), conditioning of filters for 24 hours before weighing, and weighing to a constant weight. It provides an alternative procedure that calls for heating the filter to 220 degrees Fahrenheit for two to three hours, cooling in the desiccator, and weighing until the weight stabilizes with no less than six hours between weighings. The particulate catch from the excess CO burner is primarily phosphorus pentoxide, which appears to be a strong desiccant and renders the silica gel ineffective in preserving the filter catch from water vapor contamination. Filter weight continues to grow in this environment. Heating filters to 220 degrees Fahrenheit and cooling in the desiccator likewise allows filter mass to increase and a constant weight cannot be achieved. It appears that filters, immediately after sampling, should be transported, stored and weighed in a water vapor free environment. In the later test runs conducted by FMC, FMC chose to use inert gas for this purpose.

These improvements in filter handling and storage in inert gas environments implemented by FMC in response to the initial problems with the source test methods would require a modification to the EPA reference test methods proposed in the February 1999 FIP proposal. As discussed in more detail in section IV.B. below, EPA is including in this supplemental proposal a provision that would allow FMC to use an alternative reference test method or a deviation from the reference test method provided certain showings are made upon the written request of FMC and the written approval of the Regional Administrator. This provision should accommodate FMC's need to modify the proposed test method for this source.

c. Opacity Limit

In the February 1999 FIP proposal, we proposed an opacity limit of 5% for the scrubber on the excess CO burner. In commenting on the February 1999 FIP proposal, FMC submitted a letter from Andersen 2000, Inc., to FMC dated May 7, 1999. In the letter, Andersen stated that at the upper range of the emissions from this source, there are trace visible emissions that could exceed 5% opacity. The letter further stated that the control equipment could not achieve 5% opacity on this source on a continuous basis, but that Andersen would guarantee an opacity limit of 10% under all operating conditions. EPA does not believe there is a more efficient control technology than the Andersen scrubber for controlling PM–10 emissions from the excess CO burner, which is dominated by phosphorus pentoxide a very small particulate that is difficult to control.

At the November 1, 1999 meeting, FMC submitted a summary of results of opacity readings conducted on the excess CO burner pilot plant conducted over the summer of 1999. Opacity was measured at the outlet of the Andersen

scrubber on the pilot plant. FMC did not submit individual data sheets for each observation; therefore independent analysis of the results presented is not possible.

The summary of results presented by FMC demonstrates that when the burner and scrubber were operating at ''design condition,'' normal opacity was zero percent. Some readings were less than or equal to 10% opacity and one reading taken during a ''heavy'' hot flush was reported at less than or equal to 20% opacity. In the oral presentation of this information by FMC at the November 1, 1999 meeting, the project manager made a statement that he believed that the completed full size project might actually perform better than the demonstration project. It appears the opacity readings were taken during the same time frame that source tests were being conducted. Unfortunately, correlation of opacity with scrubber inlet loadings was not conducted to provide information why any elevated opacity readings were observed.

Based on the information provided by FMC in response to the February 1999 FIP proposal, the information provided to EPA by FMC at the November 1, 1999 meeting, and the other information in the docket, EPA believes that the excess CO burner is capable of meeting an opacity limit of 10% and that 5% is an appropriate opacity action level. Based on the information provided by FMC at the November 1, 1999, meeting, during normal operation of the pilot project, there were no visible emissions.

d. Flare on Excess CO Burner

In its comments on the February 1999 FIP proposal, FMC asked for clarification that the requirements of proposed 40 CFR 52.676(c)(5), which prohibits the burning of furnace gas in the elevated secondary condenser flare and the ground flare, apply to the *existing* flares at the FMC facility. The design of the excess CO burner is nearing completion and the new system will require an emergency flare to prevent the possibility of explosions. We have requested information on this new source from FMC, but have yet to receive it. EPA therefore proposes that this new source be addressed by the new section of this proposal pertaining to EPA notification of the construction of new sources of PM–10 emissions at the FMC facility, as discussed in section IV.A.7.b. below . Because the excess CO burner will not be operational until January 1, 2001, there should be sufficient time to promulgate emission limits for this source once EPA is provided appropriate documentation from FMC.

6. Opacity Limits

In the February 1999 FIP proposal, we proposed limits on visible emissions from all sources except for the calciner scrubbers. The proposed opacity limits ranged from a limit of no visible emissions from certain piles and processes to 10% opacity on fugitive emissions not captured by baghouses. See 64 FR at 7325–7326. EPA did not rely on a direct correlation between opacity levels and mass emissions in supporting the opacity limits proposed in the FIP. Instead, as stated in the proposal, the control strategy is premised on ensuring that, for those sources that we believe currently employ RACT-level controls, emissions from those sources remain at current levels in the emission inventory. 64 FR at 7325. The emissions rates in the 1996 emission inventory were premised on the fact that the process and control equipment that affect a particular source are properly operated and maintained at all times. The opacity limits proposed by EPA were therefore intended to ensure that the process and control equipment are being properly operated and maintained at all times.

In commenting on the February 1999 FIP proposal, FMC contended that the opacity limits proposed in the FIP are overly stringent and not supported by the record, although FMC did concede that some enforceable limits on visible emissions should be required in the FIP. As an alternative approach, FMC suggested that the FIP should establish a facility-wide opacity limit of 20% and then establish action levels for each source below 20% that would trigger a requirement for FMC to commence an investigation and take corrective action. A source that exceeded the action level would not, however, be in violation of the opacity limit under FMC's suggested approach so long as emissions do not exceed the 20% opacity limit.

EPA does not believe that an opacity limit of 20% achieves EPA's objective of ensuring that, for those sources that we believe currently employ RACT-level controls, emissions from those sources remain at current levels in the emission inventory by ensuring that the process and control equipment are being properly operated and maintained at all times. Based on the visible emission surveys of the FMC facility conducted in December 1995–January 1996, October–November 1998, and a recent survey conducted in September 1999, an opacity limit of 20% is far above typical opacity levels for the sources at FMC and would be indicative of a source that was not being properly operated or maintained. On further reflection, however, EPA is proposing an alternative approach toward opacity that EPA believes will be easier to implement and enforce than EPA's February 1999 FIP proposal, and yet will still achieve EPA's objective of ensuring that process and control equipment is being properly operated and maintained at all times.

With a few exceptions, all of the opacity limits in the February 1999 FIP proposal were 10% or less. For the reasons discussed in the February 1999 FIP proposal and the docket accompanying the proposal, EPA continues to believe that, with the few exceptions discussed below, the identified point and fugitive sources should be able to achieve an opacity limit of 10% on a continuous basis if the process and control equipment is properly operated and maintained. EPA is therefore proposing an opacity limit of 10% for most sources. To ensure that emissions from these sources are minimized at all times, however, EPA is also proposing an opacity action level for each source. For those sources for which EPA proposed an opacity limit of no visible emissions in the February 1999 FIP proposal, such as some piles and buildings, EPA is proposing an opacity action level of ''any visible emissions.'' If visible emissions are observed from a source with an opacity action level of ''any visible emissions,'' FMC would be required to take prompt corrective action to minimize visible emissions, but would not be in violation of the opacity limit so long as the opacity level from such a source does not exceed 10%. For those sources with a proposed numerical opacity limit of 5, 7, or 10% in the February 1999 FIP proposal, such as baghouses, scrubbers, and some piles, EPA is proposing an opacity action level of 5%. For these sources, FMC would be required to take prompt corrective action to minimize visible emissions if opacity exceeded 5%, but would not be in violation of the opacity limit so long as opacity did not exceed 10%.

One commenter commented that properly operating baghouses are expected to have no visible emissions and that the baghouses at FMC should therefore be subject to a limit of no visible emissions. EPA agrees that a properly operating baghouse will generally have no visible emissions. Indeed, FMC also noted in its comments that ''Typically, baghouse stacks have zero percent opacity.'' However, most baghouse systems, including the baghouses at FMC have a self-cleaning mode in which the bags are

automatically cleaned through a pneumatic pulse where the collected dust falls into the baghouse hopper and is conveyed to the dust silo. During these cleaning episodes, one can observe occasional wisps of visible emissions. EPA therefore believes that an emission limitation of no visible emissions from the baghouse is not consistent with current operations and procedures.

In the February 1999 FIP proposal, EPA proposed an opacity limit of 20% for the furnace building until April 1, 2002, the date by which additional controls must be installed on the furnace and in the furnace building. After further consideration, EPA believes that an opacity limit of 20%, with a corrective action level of 10%, is also appropriate for certain open (*i.e.,* uncaptured) fugitive dust sources, such as certain piles and roads. These sources include the nodule pile (source 11), the nodule fines pile (source 13), the screened shale fines pile (source 14), and all roads (source 22). For these sources, EPA believes that meteorological conditions, such as high winds during dry conditions, could cause emissions in excess of 10% and therefore believes on further reflection that an opacity limit of 20% is appropriate for these sources. Under this proposal, if opacity exceeded 10% for these sources, FMC would be required to take appropriate additional work practice measures, such as additional application of dust suppressants or clean-up of spillage to reduce emissions to 10% opacity or below. Exceedances of the opacity action level would not constitute a violation, however, so long as the opacity level for such a source remains below 20% and FMC takes prompt appropriate corrective action.

EPA believes that having two opacity limits—10% or 20%—for all identified sources, with lower corrective action levels of ''any visible emissions,'' 5% or 10% will make it easier for FMC to implement the FIP requirements, and will also make it easier for regulators and citizens to monitor FMC's compliance with the FIP. The simplification of the opacity limits will also result in more streamlined procedures for the weekly inspection of sources for opacity, as discussed in section IV.C.3. below. Increasing the opacity limits for some sources should also help to allay FMC's concerns that short term increases in opacity could result in violation of the opacity limit. Including a specific requirement that FMC initiate corrective action if opacity exceeds the opacity action level will at the same time ensure that emissions are minimized.

To implement this proposal, EPA proposes to include a provision stating that exceeding an opacity action level shall require prompt corrective action to minimize emissions, as well as a definition of ''opacity action level.'' EPA also proposes to revise the operation and maintenance requirements to specifically require the operation and maintenance plan to specify, for each source, corrective measures to be taken when the source exceeds the opacity action level.

7. Sources Not Identified in Table 1

a. Insignificant Sources

The February 1999 FIP proposal contained a prohibition on visible emissions from any location at the FMC facility at any time except as otherwise specifically provided in the rule. See 64 FR at 7347 (proposed 40 CFR 676(c)(1)). The intent of this provision was to ensure that sources inadvertently omitted from the emissions inventory do not go unregulated. 64 FR at 7325. During the public comment period on the February 1999 FIP proposal, FMC expressed concern because there are numerous small sources of PM–10 at the FMC facility, which are not included in Table 1 to the rule, which FMC asserts could not reasonably be expected to have a measurable impact on the PM–10 loadings on the Tribal monitors but could not meet the requirement of no visible emissions. As examples, FMC identified welding operations, grinding, sand blasting and cleaning operations, housekeeping activities, construction activities, street sweeping operations, maintenance activities, pond piping discharges, small elemental phosphorous fires from spills or releases, landfill activities, and laboratory stack vents. FMC expressed concern because such activities do, at times, have intermittent visible emissions and would be in violation of the prohibition of no visible emissions. FMC proposed that these activities be exempt from all opacity requirements and that the specific list of the exempted insignificant activities be included in FMC's title V permit application and title V permit. FMC did acknowledge that it would implement reasonable precautions to minimize visible emissions from these activities.

After further consideration, EPA is proposing to exempt from the prohibition on visible emissions certain identified sources and activities that could not reasonably be expected to have a measurable impact on the PM–10 loadings on the Tribal monitors, but that could be expected to have visible emissions on an intermittent basis. EPA does not believe, however, it is appropriate to exempt these sources and activities from all limitations on opacity. Most state implementation plans have a generally-applicable opacity limit that applies to all sources of emissions, even sources and activities that would not be expected to have a measurable impact on air quality in the area. See WAC 173–400–040(1); IDAPA 16.01.01.625. EPA is therefore proposing that these smaller sources would be exempted from the prohibition on no visible emissions, but would be subject to an opacity limit of 20% over a six minute average, with Method 9 as the reference test method.

In determining the categories of smaller sources of PM–10 at the FMC facility that have not been included in the emission inventory and that would not be expected to have a measurable impact on the PM–10 loadings at the Tribal monitors, EPA considered the list proposed by FMC and also categories of sources that have been determined by states to be ''insignificant emission units'' for purposes of the title V operating permit program. These are categories of sources that are subject only to generally applicable emission limits and that generally need not be described in the title V permit application. Based on that review, EPA proposes that the following categories of sources be exempt from the general prohibition on visible emissions and instead be subject to a general opacity limitation of 20%.

a. Brazing, welding, and welding equipment and oxygen-hydrogen cutting torches;

b. Plant upkeep, including routine housekeeping, preparation for and painting of structures;

c. Grinding, sandblasting, and cleaning operations that are not part of a routine operation or a process at FMC;

d. Cleaning and sweeping of streets and paved surfaces;

e. Lawn and landscaping activities;

f. Repair and maintenance activities;

g. Landfill operations;

h. Laboratory vent stacks; and

i. Pond piping discharges.

Under this supplemental proposal, FMC would also be required to address these sources in its operation and maintenance plan.

FMC also included in its suggested list of insignificant sources construction activities and small elemental phosphorous fires (phos fires) from spills or releases. We do not agree that such sources can be characterized as insignificant with respect to their potential emissions of PM–10.

Construction activities can involve considerable emissions of PM–10 depending on the extent of the activity. Likewise, phos fires can generate considerable emissions depending on the amount of phosphorus that is burned. The fuming (burning) of the FMC Pond 9E a few years ago is one good example of a elemental phosphorus fire that was of large extent and that continued for several weeks. Preventing spillage of elemental phosphorus should be a matter of good housekeeping and would prevent phosphorus fires.

b. New Sources

A related concern raised by FMC is that the prohibition on visible emissions from any source except as specifically authorized in Table 1 to proposed 40 CFR 52.676 presents two problems. First, it effectively prohibits the construction of new sources if the new source would have visible emissions. Second, to the extent a source of PM–10 could be constructed that would have no visible emissions, there would be no additional requirements on that source. To address this issue, FMC suggested in its comments on the February 1999 FIP proposal that the FIP include a provision requiring FMC to notify EPA if it plans to construct a new source or modify an existing source in a manner that would increase emissions of PM–10. FMC suggested that this notice be provided 10 days prior to construction or modification.

EPA, in a rulemaking process separate from this FIP for FMC, is developing a rule that would apply to the construction or modification of new minor sources in Indian Country and extending to Indian Reservations the permitting requirements of sections 172(b)(6) and 173 of the Clean Air Act and 40 CFR 51.165 for major stationary sources and also major modifications in nonattainment areas (referred to as ''Part D NSR''). The Shoshone-Bannock Tribes also have the authority to seek EPA approval of a program for reviewing the construction and modification of new sources under the Tribal Authority Rule, 40 CFR Part 49. Until such a time as EPA or the Tribes, with EPA approval, adopt a new source review program for minor sources and major sources and modifications in nonattainment areas, we are proposing to require that FMC notify EPA prior to beginning construction of any new source of PM–10 or modification of an existing source that results in an increase of PM–10 emissions. ''Begin actual construction,'' ''construction,'' and ''modification'' are based on the definitions in the regulations for state Part D NSR programs, 40 CFR 51.165(a)(1)(v), (xv), and (xviii) and the New Source Performance Standards, 40 CFR 60.2 and 40 CFR 60.14. The notice of construction or modification would be required to include a description of the source, an estimate of potential PM–10 emissions from the source, and an evaluation of any control technology considered by FMC. EPA would intend to promulgate emission limitations for the source, as necessary and appropriate, in another rulemaking. In order to provide EPA time to evaluate the new source, EPA proposes that FMC must notify EPA at least 90 days prior to the construction or modification of such a source. After 90 days, FMC would be authorized to construct the source, but the source would be subject to an opacity limit of 10%, unless EPA establishes alternative or additional emission limitations or work practice requirements for the source. FMC would also be required to address the new source in its operation and maintenance plan. The 90 day period is intended to allow EPA time to consider if additional requirements should be established for the source.

B. Reference Test Methods

As discussed above, for many of the mass emission limits identified in Table 1, EPA is proposing that only Method 201/201A be the reference test method. For these sources, FMC would still be required to conduct Method 202 concurrently with Method 201/201A but the results would be for informational purposes only.

The February 1999 FIP proposal required the reference test for the Medusa Andersen stacks on the furnace building (sources 18d, 18e, 18f, and 18g) be conducted during slag tapping. See 64 FR at 7347 (proposed 40 CFR 676(d)(2)(viii)). In its comments on the February 1999 FIP proposal, FMC noted that each furnace has two slag tap holes and two metal tap holes and that, during normal operation, slag is tapped from a given furnace one side at a time for 20 minutes on each side during any given hour. A metal tap is conducted from one side of each furnace once each shift. Because each of the three required test runs lasts for at least 60 minutes, FMC points out that any given stack test will include a slag tap or metal tap, but that tapping will not be continuous throughout the source test. FMC therefore requested that the language be revised to state that the source tests on the furnace stacks be conducted during periods that include slag tapping or metal tapping, but not exclusively during tapping. EPA is proposing to revise the source testing requirements to include this language.

The February 1999 FIP proposal required the performance test for the excess CO burner (source 26b) be conducted during either a mini-flush or hot-flush. See 64 FR at 7347 (proposed 40 CFR 676(d)(2)(ix)). In its comments on the February 1999 FIP proposal, FMC noted mini-flushes typically last 21 minutes, with a recent maximum of 1.5 hours. Because each of the three required test runs lasts for at least 60 minutes, FMC points out that a mini-flush might have to be extended if the entire test were to be conducted during a mini-flush. FMC also commented that requiring sampling during a mini-flush or a hot-flush would greatly overestimate hourly emissions because such events last at most four hours in a given day and the PM–10 NAAQS includes a 24-hour standard. FMC therefore requested that the language be revised to provide that at least one of the three test runs must be conducted during a mini-flush or a hot-flush.

Devising the appropriate source testing conditions for the excess CO burner is difficult because this source is subject to intermittent processes that can significantly increase emissions for short periods of time. EPA agrees that requiring source testing to be conducted only under these conditions would overestimate emissions on a 24-hour basis. After further consideration of this issue, EPA believes it is appropriate to require that only one of the source test runs be conducted during a mini-flush or a hot-flush but that the mini-flush or hot flush last for at least thirty minutes of the one hour run. EPA arrived at this number by assuming that maximum 24-hour emissions would occur on a day on which a hot flush lasted for approximately four hours, or one-sixth of the day. One half hour equates to one sixth of three one hour source tests.

The February 1999 FIP proposal provided for some minor adjustments to reference test methods with EPA approval, such as using Method 5 in place of Method 201 or 201A for a particular point source. *See, e.g.*, 64 FR at 7347 (proposed 40 CFR 52.676(d)(3)). During its comments on the February 1999 FIP proposal, FMC requested that the FIP be revised to include additional flexibility with respect to reference test methods. Specifically, FMC requested that the FIP include a provision specifically allowing FMC to request EPA to approve alternative test methods or to deviate from the prescribed test method. 40 CFR 51.212(c)(2), which sets forth the requirements for testing for state implementation plans, authorizes the use of alternative test methods

following the review and approval of EPA. EPA believes it is appropriate to provide FMC this same flexibility in this FIP and has therefore included language authorizing the use of alternative methods approved by the Regional Administrator. EPA has used the procedure for requesting alternative test methods under 40 CFR part 63 as a guide in determining appropriate procedures for requesting an alternative test method under the FIP. *See* 40 CFR 63.7(f).

C. Monitoring, Recordkeeping, and Reporting Requirements

1. Periodic Source Testing

The FIP proposed that FMC be required to conduct annual source tests on each point source, requiring the first annual test for each source to be conducted within 12 months of the effective date of the FIP and that subsequent annual tests be completed within 12 months of the most recent previous test. See 64 FR at 7347 (proposed 40 CFR 52.676(e)(1)(i)). For the sources with emission limits that become effective after the effective date of the FIP, the February 1999 FIP proposal proposed that the first annual test be conducted 60 days after the effective date of the emission limit. In FMC's comments on the February 1999 FIP proposal, FMC requested that it be allowed 15 months in which to conduct the first annual tests and that subsequent tests be conducted thereafter within 15 months of the most recent previous test. For sources with later effective dates, FMC requested 180 days, rather than 60 days, in which to conduct the initial source test.

EPA agrees that, for the first annual tests, additional time may be needed to complete the tests on all sources, because of the number of requirements that become effective within the first year of the effective date of the FIP. EPA therefore proposes to allow 15 months within which to conduct the first annual source tests for sources with limits that become effective within 60 days of the effective date of the FIP. For the calciner scrubbers, the phos dock Anderson scrubber and the excess CO burner, EPA believes some additional time is necessary for conducting the first annual test, but does not believe the 180 days recommended by FMC is appropriate. For these sources, EPA is proposing that the first annual test be required within 90 days after the effective date of the emission limit for these sources. EPA continues to believe that subsequent annual tests should be conducted within 12 months of the previous test, but proposes to include a provision allowing FMC to request an extension of up to 90 days for any source test for good cause. The extension request must be submitted to EPA at least 30 days before the source test is otherwise required to be conducted under the rules. EPA also proposes to include a provision allowing source tests to be conducted for a particular source every other year, instead of every year if, after two consecutive years, the emissions from that source are less than 80% of the emission limit. The frequency of source testing for a particular source would revert to every year if the emissions are at any time found to be greater than or equal to 80% of the applicable emission limit. Such ''tiered'' monitoring provisions have been used with increasing frequency in rules and title V permits, and EPA believes it is appropriate to provide FMC with similar flexibility. Finally, EPA proposes to include a provision relieving FMC from the requirement to submit a proposed test plan if the plan is unchanged from the plan submitted to EPA in connection with the immediately preceding source test.

2. Pressure Relief Vents

In the February 1999 FIP proposal, EPA proposed that the pressure relief vents be subject to an opacity limit of no visible emissions except during a ''pressure release.'' *See* 64 FR at 7355 (proposed Table 1 to 40 CFR 52.676 (source 24)). We also proposed to require FMC to install monitoring devices to continuously measure and continuously record the temperature of the gases in the pressure relief vent downstream of the pressure relief valve. A ''pressure release'' was defined as an excursion of the temperature above the approved temperature range. EPA also proposed to require that the release point on each pressure relief vent be maintained at 18 inches of water. After the occurrence of each pressure release, we proposed to require that FMC inspect the valve to ensure it was properly sealed, to inspect the water level, and to then conduct a visible emissions observation to ensure there were no visible emissions. *See* 64 FR at 7348–7349 (proposed 40 CFR 52.676(e)(6)).

During the public comment period on the February 1999 FIP proposal, FMC commented that a limit of no visible emissions, except during a pressure release, is not attainable because there are minor phosphorus pentoxide emissions that can occur even when the pressure relief vents are not releasing and the valves are properly operated and maintained. FMC also noted that it had recently installed new pressure relief valves with a new design, including devices that monitor not only temperature, but also water level and pressure. FMC stated that it was currently monitoring temperature, water level, and pressure and was evaluating the data to determine the most reliable operating parameters. Because of the new monitoring devices, FMC commented that the requirement to conduct a visible emissions observation following each pressure release was not necessary to ensure proper operation.

In light of the new pressure relief valves and related monitoring devices installed by FMC, we believe revisions to the proposed requirements for the pressure relief vents are appropriate. We first propose to require that FMC install, calibrate, maintain, and operate devices to continuously measure and continuously record the pressure and water level, in addition to temperature. Similarly, we now propose that a ''pressure release'' be defined in terms of an excursion outside of the approved parameter ranges for pressure and water level, in addition to temperature. EPA also proposes that, in light of the additional monitoring devices and the new valves, FMC not be required to conduct a visible emissions observation following each pressure release, but instead be required to only inspect the valve to ensure it is properly sealed and verify that all operating parameters are within their approved range.

3. Weekly Visible Emission Observations

The February 1999 FIP proposal proposed to require that FMC conduct weekly visible emission observations of all sources subject to opacity limits once each week during a regularly scheduled time. 64 FR at 7349–7350 (proposed 40 CFR 52.676(e)(8) and (9)). During the public comment period, FMC objected to the requirement that the observations occur at ''a regularly scheduled time,'' stating that random checks once each week would be more indicative of actual operation and would give FMC more flexibility for scheduling. After further consideration, we believe that, because of the number of sources FMC is required to observe for visible emissions each week, requiring the observations to be conducted at a regularly scheduled time is too burdensome for FMC. We therefore now propose to delete the requirement that the weekly observations be conducted at a ''regularly scheduled time.''

EPA has also revised the proposed procedure for the weekly inspections to reflect the changes to the opacity limits and the addition of opacity action

levels. Under this proposal, FMC would be required to conduct a visual observation of each source each week for the presence of visible emissions. If visible emissions are detected during the observation period, FMC would be required to conduct prompt corrective action to minimize emissions. The corrective action would include, but would not be limited to, the corrective action identified in the operation and maintenance plan for the source. After completing the corrective action, FMC would be required to conduct another reading of the source using the reference test method identified for the applicable opacity action level. Additional corrective action would be required if emissions exceeded the opacity action level. In lieu of this procedure, FMC could instead conduct the initial weekly reading using the reference test method identified for the applicable opacity action level, in which case corrective action would be required only if opacity exceeded the opacity action level.

4. Moisture Content Requirement

In the February 1999 FIP proposal, EPA proposed to require that FMC maintain the moisture content of the main shale pile (source 2) and the emergency/contingency raw ore shale pile (source 3) at 11% and that FMC monitor for this requirement once each week by taking a representative sample. See 64 FR at 7350 and 7353 (proposed Table 1 to 40 CFR 52.676 (sources 2 and 3) and proposed 40 CFR 52.676(e)(10)). During the public comment period on the February 1999 FIP proposal, FMC commented that the control of the shale moisture content is not currently possible or practicable because it is affected by the moisture content of the shale as it is extracted from the earth and by meteorological conditions. FMC further stated that application of water to the shale to meet the 11% moisture content requirement would reduce the effectiveness of the application of the latex to the piles, which is also required as a control and work practice measure. After further consideration of the technical information provided by FMC, we believe it is appropriate to delete the requirement that FMC maintain the moisture content of the shale at 11% as well as the related monitoring requirements. The requirement to apply latex to these sources, along with the additional work practice requirements that will be contained in the operation and maintenance plan, should adequately ensure that PM–10 emissions from the main shale pile and the emergency/contingency raw ore shale pile are minimized.

5. Future Revisions to Monitoring, Recordkeeping, and Reporting Requirements

In its comments on the February 1999 FIP proposal, FMC expressed concern that including extensive monitoring, recordkeeping, and reporting requirements in the FIP would unnecessarily complicate the process of making appropriate revisions and modifications to these requirements in the future. To make any such changes, FMC continued, both the FIP and FMC's title V permit would need to be revised. For many other sources, FMC commented, monitoring, recordkeeping, and reporting requirements are not included as part of the applicable emission limits and work practice requirements but are instead established only in the title V permit. FMC continued that including the monitoring, recordkeeping, and reporting requirements in the FIP gives FMC less flexibility than provided to facilities that can change monitoring, recordkeeping, and reporting requirements by simply revising the facility's title V permit.

Monitoring, recordkeeping, and reporting may be established in title V permits under the authority of the periodic monitoring rule at 40 CFR 70.6(a)(3)(i)(B) and 40 CFR 70.6(a)(3)(i)(B). Such periodic monitoring is a necessary addition to title V permits where an existing applicable requirements's monitoring, recordkeeping, and reporting fail to assure compliance with those requirements, by failing to provide monitoring, recordkeeping, and reporting sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance. Newly created applicable requirements, however, should establish adequate monitoring, recordkeeping, and reporting that will assure compliance with emission limits and work practice requirements.

In this regard, EPA notes that New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants promulgated by EPA since 1990 have included extensive monitoring, recordkeeping, and reporting requirements that also serve as enhanced monitoring under the Clean Air Act and are presumed to be sufficient for title V periodic monitoring. *See generally* 62 FR 54900, 54918 (Oct. 22, 1997); 40 CFR 64.2(b)(1)(i) (1998). EPA expects that other new applicable requirements, such as SIP requirements or SIP preconstruction permit conditions, should also establish adequate monitoring, recordkeeping, and reporting upon the creation of the applicable requirement.

EPA does not believe it is appropriate to establish new applicable requirements—in the form of FIP requirements, here—that are purposely lacking and deficient with respect to compliance-assuring monitoring, recordkeeping, and reporting, with the express aim of correcting such deficiencies through the title V permit process. EPA continues to believe that it is appropriate to establish monitoring, recordkeeping, and reporting requirements in this source-specific FIP rule.

Nonetheless, EPA recognizes that revisions to the proposed monitoring, recordkeeping, and reporting requirements may prove to be necessary once the FIP is in place and over time. Several of the sources and processes at the FMC facility are unique to the elemental phosphorous industry (which consists of FMC and one other source) and FMC will be required to install new process and control equipment in response to the FIP. EPA believes it can establish monitoring, recordkeeping, and reporting requirements in the FIP proposal and at the same time, accommodate FMC's request to streamline the procedures for revising the monitoring, recordkeeping, and reporting requirements in the FIP and the public's right to notice and an opportunity to comment on any changes to the FIP requirements.

In providing guidance to states on the implementation of the title V operating permits program, EPA provided guidance on how states could revise their state implementation plans to provide for the establishment of equally stringent alternative requirements in title V permits. See *White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program,* Attachment B (March 5, 1996) (White Paper 2). Consistent with that guidance, EPA proposes to include in the FIP a provision authorizing revisions to the requirements of 40 CFR 52.676(e)[monitoring], (f) [recordkeeping], and (g)[reporting] to be accomplished through issuance, renewal, or significant permit modification of a title V operating permit to the FMC facility, provided that certain substantive and procedural requirements are met.

First, any alternative monitoring, recordkeeping, or reporting requirements that revise pre-existing FIP requirements must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the

requirements of 40 CFR 52.676(c) [emission limits and work practice requirements] and must provide no less compliance assurance than the pre-existing requirements of 40 CFR 52.676(e), (f), or (g) that the alternative requirements would replace. Second, FMC's permit application must include the proposed alternative monitoring, recordkeeping, or reporting terms, identify the specific provisions of 40 CFR 52.676(e), (f), or (g) being revised, and include the supporting documentation to establish that the alternative terms meet the substantive criteria for alternative monitoring, recordkeeping, and reporting terms. These documents all become part of the administrative record for EPA's approval of the alternative requirements. Third, the draft and final title V operating permit or permit modification would identify the specific provisions of 40 CFR 52.676(e), (f), or (g) being revised. Fourth, in the event a revision to 40 CFR 52.676(e), (f), or (g) is accomplished through a permit modification to FMC's title V operating permit or in the event the alternative title V permit terms are later revised, the permit modification must be accomplished using the significant permit modification or revision procedures of the part 71 program. This is essential because each such title V permit action is in effect a rulemaking that revises the FIP. There must therefore be a full opportunity for public review and challenge of the title V permit terms that will substitute for the pre-existing requirements regarding whether they meet the substantive criteria for establishing the alternative monitoring, recordkeeping, and reporting requirements. This is consistent with the White Paper 2 as well as the current regulations governing revisions to title V permits, which require that any change to a case-by-case determination of a standard be processed as a significant modification with full EPA and public review. See 40 CFR 71.7(e)(1)(i)(A)(3). Finally, the FIP would specifically state that, upon issuance or renewal of FMC's title V permit or a modification thereto that revises a requirement of 40 CFR 52.676(e), (f), or (g), the revision shall remain in effect as a requirement of the FIP notwithstanding expiration, termination, or revocation of FMC's title V operating permit.

Because this FIP is a federal requirement promulgated by EPA, EPA believes it is appropriate to allow revisions to the monitoring, recordkeeping, and reporting requirements of the FIP to be accomplished through FMC's title V permit only where EPA is the permit issuing authority under 40 CFR part 71. If the Shoshone-Bannock Tribes later apply for and receive approval of a title V operating permit program under 40 CFR part 70 and a PM–10 nonattainment Tribal Implementation Plan for FMC that corresponds to the proposed FIP, the Tribal Implementation Plan could include a comparable provision authorizing revisions to monitoring, recordkeeping, and reporting in the Tribal Implementation Plan to be implemented through FMC's title V permit issued by the Tribes under 40 CFR part 70.

D. Definitions

Several proposed changes to definitions or newly-proposed definitions have already been discussed above. In addition, EPA is proposing the following revisions to definitions.

1. Excursion

EPA proposes to revise this definition to be consistent with the definition of ''excursion'' in the Compliance Assurance Monitoring (CAM) rule, 40 CFR 64.1, by adding the phrase ''consistent with any averaging period specified for averaging the results of monitoring.''

2. Road

EPA proposed to define ''road'' to include any portion of the FMC facility on which a motorized vehicle has reasonable access for movement or for which there is visible evidence of previous vehicle access. See 64 FR at 7345 (proposed 40 CFR 52.676(b)). During the public comment period on the proposal, FMC expressed concern that the definition was too broad and could include almost the entire FMC facility. FMC suggested an alternative definition that included all roads or established vehicle paths that are in any way used or maintained for vehicle movement. EPA proposes to use FMC's suggested definition of ''road'' because it appears to be sufficiently broad to include all sources that should be considered roads.

3. Slag Pit Area

In the February 1999 FIP proposal, EPA proposed to define the ''slag pit area'' as the area within 100 yards of the furnace building at the FMC facility. See 64 FR at 7345 (proposed 40 CFR 52.676(b)). This is the area to which the prohibition on the discharge of molten slag and the digging of slag would apply after November 1, 2000. In its comments on the February 1999 FIP proposal, FMC asked that the slag pit area be defined with reference to its current location, which is limited to the south side of the furnace building. EPA is proposing to revise the definition of ''slag pit area'' as the area of the FMC facility immediately bordering the south side of the furnace building extending out 100 yards.

V. What Is the Impact of This Supplemental Proposal on Air Quality in the Area?

A. Emission Inventory

As discussed above, in commenting on the February 1999 FIP proposal, FMC submitted additional source test results for most point sources at the FMC facility in May 1999 and submitted additional source test data and other technical information for the excess CO burner in November 1999. Although the results of these recent source tests are consistent with the emission estimates in the 1996 base-year emissions inventory for some sources, for other sources the recent source test results indicate that emissions are higher or lower than presented in the 1996 base-year emission inventory relied on in the February 1999 FIP proposal. After reviewing the recent source test reports submitted by FMC, EPA is proposing revising the 1996 base-year emission inventory. The additional FMC source test data provides emissions in pounds per hour. For these new emission estimates, EPA proposes to use the new hourly emission rates provided by FMC and multiply the hourly emissions rate by 24 hours to estimate a daily emissions rate. Annual emissions for each source are calculated by taking the ratio of ''daily emissions to annual emissions'' in Table 4 of the February 1999 FIP proposal and applying that ratio to the new daily emissions estimate for the source. This approach accounts for processes that do not operate daily throughout the year.

The most significant changes in the emission inventory relate to the estimate of current emissions from the calciners and the elevated flare and ground flare. As discussed in section IV.A.2.a. above, FMC provided additional source test information for the calciner scrubbers which includes condensible particulate as measured by Method 202. EPA has used this additional information to revise the estimate of current emissions from the calciner scrubbers and believes it more accurately reflects current reasonable worst case emissions from the calciners. As discussed above, the revised emission estimate is based on a grain loading of 0.043 gr/dscf and a flow rate of 34,200 dscfm. As a result, emissions from the calciners are increased from 1204 pounds per day to

2419 pounds per day and from 100 tons per year to 200 tons per year.

As discussed in section IV.A.5.a. above, FMC also provided new emission information based on source tests conducted over the summer of 1999 on the excess CO burner pilot project. We believe that this new emission information more accurately reflects the mass emission rates from the existing flares for two reasons. First, the results are based on actual source tests instead of theoretical calculations of furnace gas composition and phosphorus removal rates in the condensers. Secondly, the testing to a limited extent accounts for the increase in mass due to water vapor in the atmosphere. The same operating assumptions were used to calculate the revised emission estimate for the elevated and ground flare as were used in the February 1999 FIP proposal: four furnaces operating, one calciner down for repair and therefore not available for consumption of excess CO and scrubbing in the calciner scrubber, and two hours of mini-flush. The revised combined emissions from the elevated secondary flare and CO ground flare are 10,543 pounds per day of PM–10. This estimate is based on 22 hours at normal operations (i.e., when no mini-flush is occurring), emissions at a grain loading of 1.106 gr/dscf and flow rate of 44,470 dscfm (421.6 pounds per hour), and two hours of mini-flush at an elevated emission rate of 633.9 pounds per hour. These emissions make the elevated condenser and ground flare the largest sources of PM–10 at FMC. This conclusion is consistent with the Source Apportionment Study, discussed in section V.B. below. Daily emissions after control, assuming a 95% reduction in emissions from the excess CO burner of 506 pounds per day (421.6 x 24 hours x 0.05) and one CO flare event when a calciner goes down of 13.4 pounds per event (FMC estimate of flare event), are 519 pounds per day.

Based on the additional data provided by FMC, EPA has also revised the emission estimates for the baghouses, reducing baghouse emissions from 446 pounds per day to 106 pounds per day and from 49 tons per year to 12 tons per year. Emissions from the four furnace building Medusa Andersen scrubbers are reduced from 269 pounds per day to 69 pounds per day and from 43 tons per year to 11 tons per year. Emissions from the calciner coolers are increased from 188 pounds per day to 278 pounds per day and from 27 tons per year to 39 tons per year.

Table I below shows the difference between the emissions inventory estimates in the February 1999 FIP proposal and how EPA proposes to revise the 1996 base-year emission inventory based on the additional source test data.

TABLE I.—REVISED FMC CURRENT WORST CASE DAILY AND ANNUAL PM–10 EMISSIONS SUMMARY

Source name	Old (lb/day)	New (lb/day)	Old ton/yr	New ton/yr
Point Sources:				
Ground Flare and Elevated CO Flare	3109	10543	259	903
Calciners	1204	2419	100	200
All Other Baghouses	446	106	49	12
Medusa Anderson	269	69	43	11
Calciner Coolers Vents	188	278	27	39
Pressure Relief Vents	99	99	1	1
Cooling Tower	96	96	18	18
Phos Dock	34	34	6	6
Boilers	13	13	2	2
Emergency CO Flares	12	12	0	0
Subtotal Point Sources	5470	13669	505	1192
Process and Other Fugitives:				
Slag Handling	1045	1045	165	165
All Roads	190	190	25	25
All Piles	163	163	23	23
Dry Fines Recycle	33	33	6	6
Nod Fines Truck Load	12	12	2	2
Nod Fines Pile	7	7	1	1
Fugitive Subtotal	1450	1450	222	222
Grand Total	6920	15119	727	1414

B. Source Apportionment Study

EPA, Region 10 sponsored the EPA, Office of Research and Development (ORD), National Exposure Research Laboratory, to conduct a source apportionment study of particulate matter collected on the filters of the three Tribal monitors (Source Apportionment Study). The study covered data collected from October 1996 through November 1998, with short term intensive sampling conducted during the overall study time frame. Significant additional sampling, monitoring, and filter analysis were conducted for the duration of this study. A complete report of the study protocol and results can be found in the docket to this action. The conclusions from the Source Apportionment Study support the control strategy proposed in the February 1999 FIP proposal and this supplemental proposal and show that the proposed control measures are necessary, yet adequate, to bring about attainment of the particulate standards. Those findings include the following:

1. PM–10 data, wind data, and dichotomus sampler (dichot) chemistry all indicate that the PM–10 exceedances recorded on the Tribal monitors are local in nature and point conclusively to FMC as the source of the exceedances.

2. The PM–10 collected on the filters during exceedances appears to be dominated by fine mode (*i.e.,* particluate matter of less than 2.5 micrometers in diameter) aerosol during exceedances, with a fine to coarse mass ratio of approximately three to two. However, both fine and coarse (*i.e.,* particulate matter with diameter of between 2.5 and 10 micrometers) mode contributions are needed to cause an

exceedance. PM–10 mass during exceedances is split approximately evenly between fine phosphate (P2O5 to PO4) and coarse calcium (Ca) and silicon (Si) rich dust, with 22–32% of the PM–10 mass that cannot be attributed to any specific source.

3. Fine phosphate accounts for 30 to 40% of the PM–10 mass during exceedances. Preliminary wind direction analyses and scanning electron microscope (SCM) analyses suggest the most likely sources of the fine phosphate are the elevated flare and ground flare, with some additional contribution from the calciner stacks and furnace tapping operations. Mini-flushes were the most concentrated source of fine phosphorus but are believed to have minor impact on PM–10 exceedances because of their infrequency and short duration. Significant quantities of water may be bound to the phosphorus rich particles, which is consistent with the recent source tests conducted by FMC on the excess CO burner pilot project. Calciner stack emissions and furnace tapping emissions are each estimated to contribute less than 9% of the average fine mass during exceedances.

4. The coarse fraction aerosol is highly enriched in calcium compared to the earths crustal composition, characteristic of the slag produced as a byproduct at FMC, and point to slag handling as the source of the coarse fraction aerosol. Calcium and silicon together with their associated oxygen account for about 50% of the coarse mass during exceedances.

This report supports the conclusion that there is no one source at FMC, that when controlled, would bring about attainment of the PM–10 NAAQS. Rather, controls on a number of sources are necessary to achieve the standards. The sources emitting fine-mode particles that must be controlled to attain the standard include the elevated flare, the ground flare, the calciner scrubbers, and furnace tapping fumes. The sources emitting coarse-mode particles that must be controlled to attain the standard include slag handling and fugitive dust.

C. Recent Air Quality Data

We continue to receive additional ambient particulate matter air quality data from the continued operation of the Tribal monitors.[12] As indicated in Table II below, the Tribal monitors continued to record exceedances of the 24-hour PM–10 standard during 1998 and 1999 (with data reported through the second quarter of 1999), demonstrating the need for a comprehensive control strategy for FMC.

Because the annual PM–10 NAAQS is based on a three calendar year average, there is still insufficient monitoring data from the Tribal monitors at this time to determine whether a violation of the pre-existing 1987 annual PM–10 NAAQS has occurred. The air quality data, however, strongly suggest that the Fort Hall PM–10 nonattainment area is also in violation of the annual standard.

TABLE II.—FORT HALL PM–10 MONITORING DATA—JANUARY 1994 THROUGH JUNE 1999

Site	Year	Number of exceedances	Expected exceedances	3 year average
Primary	1994	No data	Assume 0	Assume 0
	1995	No data	Assume 0	Assume 0
	1996	18	20.96	7.0
	1997	19	20.1	13.69
	1998	9	18.9	19.99
	1999	10*	20.86*	19.95*
Sho-Ban	1994	No data	Assume 0	Assume 0
	1995	No data	Assume 0	Assume 0
	1996	9	11.34	3.78
	1997	12	14	8.4
	1998	5	10.59	11.98
	1999	1*	6.92*	10.5*
Background Site	1994	No data	Assume 0	Assume 0
	1995	No data	Assume 0	Assume 0
	1996	0	0.00	0.00
	1997	1	1.05	0.35
	1998	0	0.00	0.35*
	1999	0	0.00	0.35*

*Data/calculations through June 30, 1999.

D. Effectivess of the Control Strategy

EPA believes that the emission limitations and work practice requirements in the February 1999 FIP proposal, as modified by this supplemental proposal, will result in attainment of the PM–10 NAAQS as expeditiously as practicable, notwithstanding the revisions to the emission inventory and the changes to the proposed emission limits in this supplemental proposal

As discussed in the February 1999 FIP proposal, measured ambient air quality serves as the basis for determining the level of control necessary to attain the PM–10 standards. 64 FR at 7341. Attainment of the pre-existing 24-hour standard requires that the expected number of exceedances of the NAAQS be less than or equal to one per year. Attainment of the annual standard requires that the expected annual PM–10 concentration be less than or equal to the level of the annual NAAQS. As stated in the February 1999 FIP proposal, in order for the Fort Hall PM–10 nonattainment area to attain the 24-hour standard, daily PM–10 emissions from the FMC facility must be reduced by approximately 65%. Annual PM–10 emissions must be reduced by approximately 25%. 64 FR 7342.

Table III below sets forth a revised analysis of the effectiveness of the control strategy for attaining the 24-hour

[12] Beginning April 1998, the sampling frequency of the Tribal monitors was reduced from daily sampling to once every six days because it had already been established that the area was in violation of the PM–10 standards, and because of the costs associated with daily sampling and analysis. Because of the reduction in sampling frequency, each exceedance recorded at the Tribal monitors is counted as six exceedances, in accordance with 40 CFR part 50, appendix K.

PM–10 NAAQS. Table IV below sets forth the revised analysis of the effectiveness of the control strategy for attaining the annual PM–10 NAAQS.

TABLE III.—ATTAINMENT DEMONSTRATION 24-HOUR PM–10 STANDARD FMC 1996 ACTUAL WORST CASE PM–10 EMISSIONS SUMMARY FULL IMPLEMENTATION OF PROPOSED CONTROL STRATEGY

[Pounds/day]

Source name	PM–10 emissions before control	PM–10 emissions after control
Point Sources:		
Ground Flare & Elevated CO Flare	10,543	527
Calciners	2,419	1,210
All Other Baghouses	106	106
Medusa Andersens	69	69
Calciner Coolers	278	278
Pressure Relief Vents	99	99
Cooling Tower	96	96
Phos Dock	34	34
Boilers	13	13
Emergency Flares	12	12
Subtotal Point Sources	13,669	2,444
Fugitive Sources:		
Slag Handling	1,045	146
All Roads	190	190
All Piles	163	163
Dry Fines Recycle Material	33	33
Nodule Fines Truck Loading	12	12
Nodule Fines Stockpile	7	7
Subtotal Fugitives	1,450	551
Grand total	15,119	2,995

TABLE IV.—ATTAINMENT DEMONSTRATION ANNUAL PM–10 STANDARD FMC 1996 ACTUAL WORST CASE PM–10 EMISSIONS SUMMARY FULL IMPLEMENTATION OF PROPOSED CONTROL STRATEGY

[Tons/year]

Source name	PM–10 emissions before control	PM–10 emissions after control
Point Sources:		
Ground Flare & Elevated CO flare	903	45
Calciners	200	100
All Other Baghouses	12	12
Medusa Andersens	11	11
Calciner Coolers	39	39
Pressure Relief Vents	1	1
Cooling Tower	18	18
Phos Dock	6	6
Boilers	2	2
Emergency Flares	0	0
Subtotal Point Sources	1,192	234
Fugitive Sources:		
Slag Handling	165	23
All Roads	25	25
All Piles	23	23
Dry Fines Recycle Material	6	6
Nodule Fines Truck Loading	2	2
Nodule Fines Stockpile	1	1
Subtotal Fugitives	222	80
Grand Total	1,414	314

With the exception of the excess CO burner, emissions ''after control'' for all sources represent the allowable emission limitations for those sources. As discussed above, for the excess CO burner, EPA has proposed emission limits of 95% control efficiency at all times, but not to exceed 24 pounds per hour. As discussed above in section IV.A.5., EPA has calculated emissions ''after control'' based on an assumption of 95% control efficiency. EPA does not believe it is appropriate to use the pounds-per-hour emission limit to estimate emissions from the excess CO burner (after implementation of controls) on a 24-hour or annual basis, because the hourly emissions rate is a peak emissions design rate that would be expected to occur for the duration of a mini-flush or a hot flush, but would not be expected to be maintained over a 24-hour period.

As discussed in section V.A. above, the emissions estimates for all baghouses, the four furnaces (Medusa Andersen), and the calciner coolers have been revised based on the additional source test data provided by FMC. Because the control strategy for these sources is designed to keep emissions from these sources at current levels, however, there is no change in the emissions estimates for these sources before and after implementation of the control strategy.

Estimated emissions following full implementation of the control strategy has been revised for the calciner scrubbers. As discussed in section IV.A.2., the February 1999 FIP proposal over-estimated the reduction in emissions from the calciner scrubbers following implementation of the controls. EPA now expects a 50% reduction in emissions from the calciner scrubbers.

EPA believes the control strategy proposed in the February 1999 FIP proposal, as modified by this supplemental proposal, will result in a 80% reduction of daily worst-case PM–10 emissions from FMC on a facility-wide basis, a reduction of 12,124 pounds per day. The sources for which EPA believes emissions reductions will be necessary to meet the proposed emissions limitations—slag handling, the calciner scrubbers, the furnace building, the phos dock, and the elevated secondary condenser and ground flares—are not seasonal in nature. Emissions from these sources remain relatively constant throughout the year. Thus, EPA expects that the emissions reductions will occur throughout the year and will produce sufficient reductions in annual emissions to achieve the annual standard. EPA anticipates a 78% reduction in annual PM–10 emissions after full implementation of the control strategy, a reduction of 1100 tons per year. As discussed above, so long as the proposed control strategy achieves overall emission reductions from the FMC facility of 65%, we believe the proposed control strategy should result in attainment of the pre-existing 24-hour and annual PM–10 standards.

VI. How Do I Comment on This Action?

We are soliciting public comment on all aspects of this supplemental proposal only. The period of comment has closed for the February 12, 1999 FIP proposal. Thus, at this time, we will consider comments only on those portions of the February 12, 1999 proposal that would be affected if EPA were to take action approving this supplemental proposal. Comments on the February 1999 FIP proposal are discussed in this supplemental proposal only to the extent a particular comment is relevant to this supplemental proposal. All comments received on the February 1999 FIP proposal and on this supplemental proposal will be addressed when EPA takes final action on the Federal Implemental Plan (FIP).

To comment on today's supplemental proposal, you should submit comments by mail or in person (in triplicate if possible) to the address listed in the front of this notice. Be sure to identify the appropriate docket control number (*i.e.,* ''ID–24–7004'') in your correspondence. Your comments must be postmarked by February 28, 2000 to be considered in the final action taken by EPA.

You may also comment on this supplemental proposal by attending the public hearing if one is held and providing oral comments. If EPA determines that a hearing should be held, the time and date will be announced in local papers. You may also call Steven Body at (206) 553–0782 to determine if a hearing will be held and to obtain the time and location.

VII. Do Any of the Regulatory Assessment Requirements Apply to This Action?

A. Executive Order 12866

Under Executive Order 12866, 58 FR 51735 (October 4, 1993), all ''regulatory actions'' that are ''significant'' are subject to Office of Management and Budget review and the requirements of the Executive Order. As discussed in the February 1999 FIP proposal, the proposed FIP, including this supplemental proposal, is not a rule of general applicability and therefore is not a ''regulatory action'' under Executive Order 12866. See 64 FR at 7342–7343.

B. Regulatory Flexibility Act (RFA)

Under the Regulatory Flexibility Act, 5 U.S.C. section 601 *et seq.*, EPA generally must prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless EPA certifies that the rule will not have a significant economic impact on a substantial number of small entities. 5 U.S.C. Secs. 603, 604 and 605(b). As discussed in the February 1999 FIP proposal, because FMC has more than 1,000 employees, it is not a small entity under the RFA. Therefore, pursuant to 5 U.S.C. section 605(b), I certify that the proposed FIP, including this supplemental proposal, will not have a significant economic impact on a substantial number of small entities. See 64 FR at 7343.

C. Unfunded Mandates Reform Act (UMRA)

Title II of the Unfunded Mandates Reform Act of 1995, Pub. L. 04–4, establishes requirements for federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. For the reasons discussed in the February 1999 FIP proposal, the proposed FIP, including this supplemental proposal, does not impose any enforceable duties or contain any unfunded mandate on state, local or tribal governments, or impose any significant or unique impact on small governments as described in UMRA. Moreover, the proposed FIP, including this supplemental proposal, is not likely to result in the expenditure of $100 million or more by the private sector in any one year. Therefore, the requirements of UMRA do not apply. See 64 FR at 7343.

D. Paperwork Reduction Act

Under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, OMB must approve all ''collections of information'' by EPA. The Act defines ''collection of information'' as a requirement for ''answers to * * * identical reporting or recordkeeping requirements imposed on ten or more persons.* * * '' 44 U.S.C. 3502(3)(A). Because the proposed FIP only applies to one company, the Paperwork Reduction Act does not apply.

E. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

This executive order applies to any rule that: (1) Is determined to be ''economically significant'' as that term

is defined in E.O. 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. A rule is economically significant if it is likely to have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities. As discussed in the February 1999 FIP proposal, the costs to FMC of complying with the FIP are expected to be less than $50 million dollars. 64 FR at 7343. In addition, EPA does not believe the FIP will adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities. Accordingly, EPA has determined that the FIP proposal, including this supplemental proposal, is not economically significant and thus not subject to Executive Order 13045.

F. Executive Orders 13132: Federalism

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by state and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that have ''substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.'' Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by state and local governments, or EPA consults with state and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts state law unless EPA consults with state and local officials early in the process of developing the proposed regulation.

If EPA complies by consulting, Executive Order 13132 requires EPA to provide to the Office of Management and Budget (OMB), in a separately identified section of the preamble to the rule, a federalism summary impact statement (FSIS). The FSIS must include a description of the extent of EPA's prior consultation with state and local officials, a summary of the nature of their concerns and the agency's position supporting the need to issue the regulation, and a statement of the extent to which the concerns of state and local officials have been met. Also, when EPA transmits a draft final rule with federalism implications to OMB for review pursuant to Executive Order 12866, EPA must include a certification from the agency's Federalism Official stating that EPA has met the requirements of Executive Order 13132 in a meaningful and timely manner.

Neither the February 1999 FIP proposal nor this supplemental proposal will have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This rule only prescribes standards appropriate for one facility on an Indian Reservation, and thus does not directly affect any state. Moreover, it does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. Thus, the requirements of section 6 of the Executive Order do not apply to this rule. Nonetheless, as discussed in the February 1999 FIP proposal, EPA worked closely with representatives of the Tribes during the development of the proposed FIP. See 64 FR at 7312. EPA has continued to work with the Tribes in developing this supplemental proposal.

G. Executive Order 13084: Consultation and Coordination With Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected and other representatives of Indian tribal governments ''to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities.'' This Executive Order is discussed in more detail in the February 1999 FIP proposal. See 64 FR at 7312.

The proposed FIP, including this supplemental proposal, imposes obligations only on the owner or operator of FMC, and does not impose substantial direct compliance costs on the communities of Indian tribal governments. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule. As discussed in the February 1999 FIP proposal, EPA worked closely with representatives of the Shoshone-Bannock Tribes during the development of the FIP proposal. See 64 FR at 7312. EPA has continued to work with the Tribes in developing this supplemental proposal.

H. National Technology Transfer and Advancement Act of 1995 (NTTAA)

Section 12(d) of NTTAA, Pub. L. No. 104–113, section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through the Office of Management and Budget, explanations when the Agency decides not to use available and applicable voluntary standards.

The supplemental proposal does not propose any new reference test methods for the emissions limitations and work practice requirements in the FIP proposal. Therefore, EPA is relying on the analysis of potentially applicable voluntary consensus standards contained in the February 1999 FIP proposal. See 64 FR at 7344.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

Dated: January 13, 2000.

Carol M Browner,

Administrator.

40 CFR part 52 is proposed to be amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart N—Idaho

2. Section 52.676, which was proposed to be added to subpart N on February 12, 1999 (64 FR 7308) is proposed to be amended as follows:

a. In paragraph (b), by revising the definitions of ''Excursion,'' ''Road,'' and ''Slag Pit Area'' and adding definitions of ''Begin Actual Construction,'' ''Construction,'' ''Modification,'' and ''Opacity Action Level'' in alphabetical order;

b. In paragraph (c), by revising paragraphs (c)(1), (c)(5)(i), and (c)(6) and adding new paragraphs (c)(10) and (c)(11);

c. In paragraph (d), by revising paragraphs (d)(1), (d)(2) introductory text, (d)(2)(ii), (d)(2)(vii), (d)(2)(viii), (d)(2)(ix), and (d)(5); redesignating paragraph (d)(6) as (d)(7); and adding a new paragraph (d)(6);

d. In paragraph (e), by revising paragraphs (e)(1)(i) and (e)(1)(ii); adding a new paragraph (e)(1)(vi); revising paragraphs (e)(6) introductory text, (e)(6)(ii), and (e)(6)(iv); removing paragraph (e)(6)(v); revising paragraph (e)(7) introductory text; adding a new paragraph (e)(7)(iii)(I); revising paragraph (e)(8); removing paragraphs (e)(9) and (e)(10); and redesignating paragraphs (e)(11) through (e)(13) as paragraphs (e)(9) through (e)(11);

e. In paragraph (f), by revising paragraph (f)(10);

f. In paragraph (h), by redesignating the existing text as paragraph (h)(1) and adding a new paragraph (h)(2);

g. Revising Table 1 to this section; and

h. Adding a new Table 2 to this section.

§ 52.676 Control Strategy: Fort Hall PM–10 Nonattainment Area, Fort Hall Indian Reservation, Idaho.

* * * * *

(b) * * *

Begin Actual Construction means, in general, initiation of physical on-site construction activities on a source which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying of underground pipework, and construction of permanent storage structures. With respect to a change in the method of operating, this term refers to those on-site activities other than preparatory activities which mark the initiation of the change.

* * * * *

Construction means any physical change or change in the method of operation (including fabrication, erection, installation, demolition, or modification of a source) which would result in a change in actual emissions.

* * * * *

Excursion means a departure from a parameter range approved under paragraphs (e)(3) or (g)(1) of this section, consistent with any averaging period specified for averaging the results of monitoring.

* * * * *

Modification means any physical change in or a change in the method of operation of, an existing source which increases the amount of particulate matter emitted by that source. The activities described in 40 CFR 60.14(e) shall not, by themselves, be considered modifications.

* * * * *

Opacity Action Level means the level of opacity of emissions from a source requiring the owner or operator of the FMC facility to take prompt corrective action to minimize emissions, including without limitation those actions described in the approved operation and maintenance plan.

* * * * *

Road means access and haul roads, driveways or established vehicle paths, permanent or temporary, which are graded, constructed, used, reconstructed, improved, or maintained for use in vehicle movement throughout the FMC facility.

* * * * *

Slag Pit Area means the area of the FMC facility immediately bordering the south side of the furnace building extending out 100 yards.

(c) * * *

(1)(i) Except as otherwise provided in paragraphs (c)(1)(ii), (c)(1)(iii); and (c)(2) of this section, there shall be no visible emissions from any location at the FMC facility at any time, as determined by a visual observation.

(ii) Emissions from the following equipment, activities, processes, or sources shall not exceed 20% opacity over a six minute average. Method 9 is the reference test method for this requirement.

(A) Brazing, welding, and welding equipment and oxygen-hydrogen cutting torches;

(B) Plant upkeep, including routine housekeeping, preparation for and painting of structures;

(C) Grinding, sandblasting, and cleaning operations that are not part of a routine operation or a process at the FMC facility;

(D) Cleaning and sweeping of streets and paved surfaces;

(E) Lawn and landscaping activities;

(F) Repair and maintenance activities;

(G) Landfill operations;

(H) Laboratory vent stacks; and

(I) Pond piping discharges.

(iii) Except as otherwise provided in paragraph (c)(1)(ii) of this section, emissions from equipment, activities, processes, or sources not identified in Table 1 to this section shall not exceed 10% opacity over a six minute average provided that FMC has complied with the requirements of paragraph (c)(11) of this section and provided further that a more stringent opacity limit has not been established for the source in this section. Method 9 is the reference test method for this requirement.

* * * * *

(5)(i) Beginning January 1, 2001, no furnace gas shall be burned in the existing elevated secondary condenser flare or the existing ground flare (source 26a).

* * * * *

(6) At all times, including periods of startup, shutdown, malfunction, or emergency, the owner or operator of the FMC facility shall, to the extent practicable, maintain and operate each source of PM–10 at the FMC facility, including without limitation those sources identified in Column II of Table 1 to this section and associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

* * * * *

(10) For each source identified in Column II of Table 2 to this section, the owner or operator of the FMC facility shall take appropriate actions to reduce visible emissions from the source if opacity exceeds the opacity action level for that source identified in Column III of Table 2. Such actions shall be commenced as soon as possible but not to exceed 24 hours after an exceedance of the opacity action level is first identified and shall be completed as soon as possible. Such actions shall include, but not be limited to those actions identified in the operation and maintenance plan for the source. Exceedance of an opacity action level does not constitute a violation of this section, but failure to take appropriate corrective action as identified in this paragraph (c)(10) does constitute a violation of this section.

(11) The owner or operator of the FMC facility shall notify EPA prior to the construction of a new source of PM–10 at the FMC facility or the modification of an existing source at the FMC facility in a manner that increases emissions of PM–10 as follows:

(i) Such notification shall be submitted to EPA at least 90 days prior to commencement of the construction or modification.

(ii) Such notification shall include the following information:

(A) A description of the source and any modification thereto;

(B) An estimate of potential PM–10 emissions from source on a 24-hour basis, both with and without any proposed air pollution control equipment;

(C) The expected daily hours of operation of the source or emission release from the source, including any seasonal variation; and

(D) A description of any PM–10 control technology to be implemented at the source along with an analysis of alternative control technologies considered but rejected.

(iii) Any source identified in this section shall continue to be subject to the requirements of this section notwithstanding the modification of the source.

(iv) The requirement of this paragraph (e)(11) is in addition to any other requirement to obtain a permit pursuant to 40 CFR parts 49 or 52.

(v) This paragraph (e)(11) shall cease to apply if either of the following events occur:

(A) EPA promulgates a new source review program for PM–10 that applies to the FMC facility; or

(B) The Tribes promulgate a new source review program for PM–10 that applies to the FMC facility and EPA approves the Tribes' program under 40 CFR part 49.

(d) * * *

(1) For each source identified in Column II of Table 1 to this section, the reference test method for the corresponding emission limitation in Column III of Table 1 to this section for that source is identified in Column IV of Table 1 to this section. For each source identified in Column II of Table 2 to this section, the reference test method for the corresponding opacity action level in Column III of Table 2 to this section for that source is identified in Column IV of Table 2 to this section.

(2) When Method 201/201A or Methods 201/201A and 202 are specified as the reference test methods, the testing shall be conducted in accordance with the identified test methods and the following additional requirements:

* * * * *

(ii) Method 202 shall be run concurrently with Method 201 or Method 201A. Unless Method 202 is specifically designated as part of the reference test method, Method 202 shall be performed on each source for informational purposes only and the results from the Method 202 test shall not be included in determining compliance with the mass emission limit for the source.

* * * * *

(vii) The mass emission rate of PM–10 shall be determined as follows: (A)(1) Where Method 201/201A is identified as the reference test method, the mass emission rate of PM–10 shall be determined by taking the results of the Method 201/201A test and then multiplying by the average hourly volumetric flow rate for the run.

(*2*) Where Methods 201/201A and 202 are identified as the reference test methods, the mass emission rate of PM–10 shall be determined by first adding the PM–10 concentrations from Methods 201/201A and 202, and then multiplying by the average hourly volumetric flow rate for the run.

(B) The average of the three required runs shall be compared to the emission standard for purposes of determining compliance.

(viii) Source testing of the Medusa Andersen stacks on the furnace building (sources 18d, 18e, 18f, and 18g) shall be conducted during periods which include slag tapping or metal tapping.

(ix) At least one of the three runs from a source test of the excess CO burner (source 26b) shall be conducted during either a mini-flush or hot-flush that lasts for at least 30 minutes.

* * * * *

(5) Where Method 202 is identified as part of the reference test method for a particular source, Method 202 shall not be required for that source provided that:

(i) The owner or operator of the FMC facility submits a written request to the Regional Administrator which demonstrates that the contribution of condensible particulate matter to total PM–10 emissions is insignificant for such source; and

(ii) The Regional Administrator approves the request in writing.

(6)(i)An alternative reference test method or a deviation from a reference test method identified in this section may be approved as follows:

(A) The owner or operator of the FMC facility must submit a written request to the Regional Administrator at least 60 days before the performance test is scheduled to begin which includes the reasons why the alternative or deviation is needed and the rationale and data to demonstrate that the alternative test method or deviation from the reference test method:

(*1*) Provides equal or improved accuracy and precision as compared to the specified reference test method; and

(*2*) Does not decrease the stringency of the standard as compared to the specified reference test method.

(B) If requested by EPA, the demonstration referred to in paragraph (d)(6)(i)(A) of this section must use Method 301 in 40 CFR part 63, Appendix A to validate the alternative test method or deviation.

(C) The Regional Administrator must approve the request in writing.

(ii) Until the Regional Administrator has given written approval to use an alternative test method or to deviate from the reference test method, the owner or operator of the FMC facility is required to use the reference test method when conducting a performance test pursuant to paragraph (e)(1) of this section.

(e) * * *

(1) * * *

* * * * *

(i) The first annual test for each source shall be completed within 15 months of the effective date of this section, except that the first annual test for the calciner scrubbers (source 9), the phos dock Andersen scrubber (source 21a), and the excess CO burner (source 26b) shall be conducted within 90 days after the date on which the PM–10 emission limitations become applicable to those sources. Subsequent annual tests shall be completed within 12 months of the most recent previous test. The time period for conducting any annual source test may be extended by a period of up to 90 days provided that:

(A) The owner or operator of the FMC facility submits a written request to the Regional Administrator which demonstrates the need for the extension; and

(B) The Regional Administrator approves the request in writing.

(ii) The owner or operator of the FMC facility shall provide the Regional Administrator a proposed test plan at least 30 days in advance of each scheduled source test. If the proposed test plan is unchanged for the next scheduled source test on the source, the owner or operator of the FMC facility shall not be required to resubmit a source test plan. FMC shall submit a new source test plan to EPA in accordance with this paragraph (d)(1)(ii)

if the proposed test plan will be different than the immediately preceding source test plan that had been submitted to EPA.

* * * * *

(vi) If, after conducting annual source tests for a particular source for two consecutive years, the emissions from that source are less than 80% of the applicable emission limit, then the frequency of source testing for that source may be reduced to every other year. The frequency of source testing shall revert to annual if the emissions from any source test on the source are greater than or equal to 80% of the applicable emission limit.

* * * * *

(6) For each of the pressure relief vents on the furnaces (source 24), FMC shall install, calibrate, maintain, and operate in accordance with the manufacturer's specifications, devices to continuously measure and continuously record the temperature and pressure of gases in the relief vent downstream of the pressure relief valve and the water level of the pressure relief valve.

* * * * *

(ii) A ''pressure release'' is defined as an excursion of the temperature, pressure, or water level outside of the parameters approved in accordance with paragraph (g)(1) of this section. Until EPA approval of the acceptable range of parameters for the pressure release vents, a ''pressure release'' is defined as an excursion of the temperature, pressure, or water level outside of the parameters proposed by the owner or operator of the FMC facility for the pressure relief vents, as provided in paragraph (g)(1) of this section.

* * * * *

(iv) When a pressure release through a pressure relief vent is detected, the owner or operator of the FMC facility shall, within 30 minutes of the beginning of the pressure release, inspect the pressure relief valve to ensure that it has properly sealed and verify that at least 18 inches of water seal pressure is maintained.

(7) The owner or operator of the FMC facility shall develop and implement a written operations and maintenance (O&M) plan covering all sources of PM–10 at the FMC facility, including without limitation, each source identified in Column II of Table 1 to this section and uncaptured fugitive and general fugitive emissions of PM–10 from each source.

* * * * *

(iii) * * * (I) For each source identified in Column II of Table 2 to this section, additional control measures or other actions to be taken if the emissions from the source exceed the opacity action level identified in Column III of Table 2 to this section.

(8) For each source identified in Column II of Table 1 to this section, the owner or operator of the FMC facility shall conduct a visual observation of each source at least once during each calendar week.

(i) If visible emissions are observed for any period of time during the observation period, the owner or operator of the FMC facility shall immediately, but no later than within 24 hours of discovery, take corrective action to minimize visible emissions from the source. Such actions shall include, but not be limited to, those actions identified in the operation and maintenance plan for the source. Immediately upon completion of the corrective action, a certified observer shall conduct a visible emissions observation of the source using the reference test method for the opacity action level with an observation duration of at least six minutes. If opacity exceeds the opacity action level, the owner or operator of the FMC facility shall take prompt corrective action. This process shall be repeated until opacity returns to below the opacity action level.

(ii) In lieu of the periodic visual observation under this paragraph (e)(8), the owner or operator of the FMC facility may conduct a visible emission observation of any source subject to the requirements of this paragraph (e)(8) using the reference test method for the opacity action level, in which case corrective action must be taken only if opacity exceeds the opacity action level.

(iii) Should, for good cause, the visible emissions reading not be conducted on schedule, the owner or operator of the FMC facility shall record the reason observations were not conducted. Visible emissions observations shall be conducted immediately upon the return of conditions suitable for visible emissions observations.

(iv) If, after conducting weekly visible emissions observations for a given source for more than one year and detecting no visible emissions from that source for 52 consecutive weeks, the frequency of observations may be reduced to monthly. The frequency of observations for such source shall revert to weekly if visible emissions are detected from that source during any monthly observation or at any other time.

(f) * * *

* * * * *

(10) The owner or operator of the FMC facility shall keep the following records with respect to the main shale pile (source 2) and emergency/contingency raw ore shale pile (source 3):

(i) The date and time of each reforming of the pile or portion of the pile.

(ii) The date, time, and quantity of latex applied.

* * * * *

(h) *Title V permit.* (1) * * *

(2) (i) A requirement of paragraph (e), (f), or (g) of this section may be revised through issuance or renewal of a title V operating permit by EPA to the FMC facility under 40 CFR part 71 or through a significant permit modification thereto, provided that:

(A) Any alternative monitoring, recordkeeping, or reporting requirements that revise requirements of paragraphs (e), (f), or (g) of this section:

(*1*) Are sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the requirements of paragraph (c) of this section; and

(*2*) Provide no less compliance assurance than the requirements of paragraphs (e), (f), or (g) of this section that the alternative requirements would replace.

(B) In the event the alternative monitoring, recordkeeping, or reporting requirements are requested by the owner or operator of the FMC facility, FMC's application for its title V operating permit or significant permit modification must include:

(*1*) The proposed alternative monitoring, recordkeeping, or reporting permit terms or conditions;

(*2*) The specific provisions of paragraphs (e), (f), or (g) of this section the owner or operator of the FMC facility is seeking to revise; and

(*3*) The supporting documentation to establish that the alternative permit terms or conditions meet the requirements of paragraph (h)(2)(i)(A) of this section.

(C) The draft and final title V operating permit or significant permit modification identifies the specific provisions of paragraphs (e), (f), or (g) of this section being revised;

(D) In the event a revision to paragraphs (e), (f), or (g) of this section is accomplished through a significant modification to FMC's title V operating permit, it is accomplished using the significant permit modification procedures of 40 CFR part 71; and

(ii) Upon issuance or renewal of FMC's title V permit or a significant permit modification thereto that revises

a requirement of paragraphs (e), (f), or (g) of this section, the revision shall remain in effect as a requirement of this section not withstanding expiration, termination, or revocation of FMC's title V operating permit.

* * * * *

TABLE 1 TO § 52.676

I. Source No.	II. Source description	III. Emission limitations and work practice requirements	IV. Reference test method
1	Railcar unloading of shale (ore) into underground hopper.	Opacity shall not exceed 10% over a 6 minute average.	Method 9.
2	Main shale pile (portion located on Fort Hall Indian Reservation).	Opacity shall not exceed 10% over a 6 minute average.. Latex shall be applied after each reforming of pile or portion of pile.	Method 9.
3	Emergency/contingency raw ore shale pile.	Opacity shall not exceed 10% over a 6 minute average.. Latex shall be applied after each reforming of pile or portion of pile.	Method 9.
4	Stacker and reclaimer	Opacity shall not exceed 10% over a 6 minute average.	Method 9.
5a	East shale baghouse	a. Emissions shall not exceed 0.10 lb. PM–10/hr (excluding condensible PM–10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. Method 9.
5b	East shale baghouse building	b. Opacity shall not exceed 10% over a 6 minute average from any portion of the building.	b. Method 9.
6a	Middle shale baghouse	a Emissions shall not exceed 0.30 lb. PM–10/hr (excluding condensible PM–10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. Method 9.
6b	Middle shale baghouse building	b. Opacity shall not exceed 10% over a 6 minute average from any portion of the building.	b. Method 9.
6c	Middle shale baghouse outside capture hood—fugitive emissions.	c. Opacity shall not exceed 10% over a 6 minute average.	c. Method 9.
7a	West shale baghouse	a. Emissions shall not exceed 0.20 lb. PM–10/hr (excluding condensible PM–10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. Method 9.
7b	West shale baghouse building	b. Opacity shall not exceed 10% over a 6 minute average from any portion of the building.	b. Method 9.
7c	West shale baghouse outside capture hood—fugitive emissions.	c. Opacity shall not exceed 10% over a 6 minute average.	c. Method 9.
8a	a. Slag handling: slag pit area and pot rooms.	a. Until November 1, 2000, emissions from the slag pit area and the pot rooms shall be exempt from opacity limitations. Effective November 1, 2000, opacity of emissions in the slag pit area and from pot rooms shall not exceed 10% over a 6 minute average. Exemption: Fuming of molten slag in transport pots during transport are exempt provided the pots remain in the pot room for at least 3 minutes after the flow of molten slag to the pots has ceased. *See also* 40 CFR 52.676(c)(4).	a. Method 9.
8b	b. Recycle material pile	b. Opacity shall not exceed 10% over a 6 minute average.	b. Method 9.
8c	c. Dump to slag pile	c. Fuming of molten slag during dump to slag pile shall be exempt from opacity limitations.	
9	Calciner scrubbers	Effective December 1, 2000, the calciner scrubbing chain (air pollution control equipment) shall achieve an overall control efficiency* of at least 90% for PM–10 (including condensible PM–10) under all operating conditions. Emissions from any one calciner scrubber exhaust stack shall not exceed 0.022 grains per dry standard cubic foot PM–10 (including condensible PM–10). Total gas flow rate through any one outlet stack shall not exceed 40,800 dry standard cubic feet per minute. The calciner scrubbers shall be exempt from opacity limitations.	Method 5 (all particulate collected shall be counted as PM–10) and Method 202 at the scrubber outlet. Method 201A and Method 202 at the inlet to the scrubber systems. Method 5 (all particulate collected shall be counted as PM–10) and Method 202 at the scrubber outlet. Method 2.

TABLE 1 TO § 52.676—Continued

I. Source No.	II. Source description	III. Emission limitations and work practice requirements	IV. Reference test method
10	Calciner cooler vents	Emissions from any one calciner cooler vent shall not exceed 4.4 lb. PM–10/hr (excluding condensible PM–10).	Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
11	Nodule pile	Opacity shall not exceed 20% over a 6 minute average.	Method 9.
12a	North nodule discharge baghouse	a. Emissions shall not exceed 0.20 lb. PM–10/hr (excluding condensible PM–10).	a. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
12b	South nodule discharge baghouse	b. Emissions shall not exceed 0.20 lb. PM–10/hr (excluding condensible PM–10).	b. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
12c	North and south nodule discharge baghouse outside caputure hood—fugitive emissions.	c. Opacity shall not exceed 10% over a 6 minute average.	c. Method 9.
13	Nodule fines pile	Opacity shall not exceed 20% over a 6 minute average.	Method 9.
14	Screened shale fines pile adjacent to the West shale building.	Opacity shall not exceed 20% over a 6 minute average.	Method 9.
15a	Proportioning building—a. East nodule baghouse.	a. Emissions shall not exceed 0.50 lb. PM–10/hr (excluding condensible PM–10).	a. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
15b	b. West nodule baghouse	b. Emissions shall not exceed 0.50 lb. PM–10/hr (excluding condensible PM–10).	b. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
15c	c. Proportioning building—fugitive emissions.	c. Opacity shall not exceed 10% over a 6 minute average from any portion of the building.	c. Method 9.
16a	Nodule reclaim baghouse	a. Emissions shall not exceed 0.20 lb. PM–10/hr (excluding condensible PM–10).	a. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
16b	Nodule reclaim baghouse outside caputrue hood—fugitive emissions.	b. Opacity shall not exceed 10% over a 6 minute average.	b. Method 9.
17a	Dust silo baghouse	a. Emissions shall not exceed 0.15 lb. PM–10/hr (excluding condensible PM–10).	a. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
17b	Dust silo fugitive emissions and pneumatic dust handling system.	b. Opacity shall not exceed 10% over a 6 minute average from any portion of the dust silo or pneumatic dust handling system.	b. Method 9.
18a	Furnace building— a. East baghouse.	a. Emissions shall not exceed .75 lb. PM–10/hr (excluding condensible PM–10).	a. Methods 201/201A.
18b	b. West baghouse	b. Emissions shall not exceed .75 lb. PM–10/hr (excluding condensible PM–10).	b. Methods 201/201A.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
18c	c. Furnace building; any emission point except 18a, 18b, 18d, 18e, 18f, or 18g.	c. Until April 1, 2002, opacity shall not exceed 20% over a 6 minute average.	c. Method 9.
		Effective April 1, 2002, opacity shall not exceed 10% over a 6 minute average.	Method 9.
18d	d. Furnace #1 Medusa Andersen	d,e,f,g: PM–10 emissions from any one Medusa Andersen shall not exceed 2.0 lb/hr (excluding condensible PM–10).	d,e,f,g: Methods 201/201A.
18e	e. Furnance #2 Medusa Andersen.		
18f	f. Furnace #3 Medusa Andersen	Opacity from any one Medusa Andersen shall not exceed 10% over a 6 minute average.	Method 9.
18g	g. Furnace #4 Medusa Andersen		
19	Briquetting building	Opacity shall not exceed 10% over a 6 minute average from any portion of the building.	Method 9.
20a	a. Coke handling baghouse	a. Emissions shall not exceed 1.7 lb. PM–10/hr. (excluding condensible PM–10).	a. Methods 201/201A.

TABLE 1 TO § 52.676—Continued

I. Source No.	II. Source description	III. Emission limitations and work practice requirements	IV. Reference test method
		Opacity shall not exceed 10% over a 6 minute average.	Method 9.
20b	b. Coke unloading building	b. Opacity shall not exceed 10% over a 6 minute average from any portion of the coke unloading building.	b. Method 9.
21a	a. Phosphorous loading dock (phos dock), Andersen Scrubber.	a. Effective November 1, 1999, emissions shall not exceed 0.004 grains per dry standard cubic foot PM–10 (excluding condensible PM–10).	a. Methods 201/201A.
		Effective November 1, 1999, flow rate (throughput to the control device) shall not exceed manufacturer's design specification.	Method 2.
		Effective November 1, 1999, opacity shall not exceed 10% over a 6 minute average.	Method 9.
21b	b. Phosphorous loading dock—fugitive emissions.	b. Effective November 1, 1999, opacity shall not exceed 10% over a 6 minute average.	b. Method 9.
22	All roads	Opacity shall not exceed 20% over a 6 minute average.	Method 9.
23	Boilers	Emissions from any one boiler shall not exceed 0.09 lb. PM–10/hr (excluding condensible PM–10).	Methods 201/201A.
		Opacity from any one boiler shall not exceed 10% over a 6 minute average.	Method 9.
24	Pressure relief vents	Opacity shall not exceed 10% over a 6 minute average except during a pressure release, as defined in 40 CFR 52.676(e)(6)(ii).	Method 9.
		Pressure release point shall be maintained at 18 inches of water pressure at all times. Emissions during a pressure release, as defined in 40 CFR 52.676(e)(6)(ii) are exempt from opacity limitations.	Inspection of pressure release vent and monitoring device.
25	Furnace CO emergency flares	Except during an emergency flaring caused by an emergency as defined in 40 CFR 52.626(b), opacity shall not exceed 10% over a six minute average. Emissions during an emergency flaring caused by an emergency are exempt from opacity limitations.	Method 9.
26a	a. Existing elevated secondary condenser flare and ground flare.	a. *See* 40 CFR 52.676(c)(5)	
26b	b. Excess CO burner (to be built to replace the existing elevated secondary consenser flare and ground flare).	b. Effective January 1, 2001, i. The control efficiency* of the air pollution control equipment shall achieve an overall control efficiency of at least 95% for PM–10 (including condensible PM–10) under all operating conditions.	i. Methods 201/201A and Method 202 for the inlet (sampling locations to be determined). Method 201/201A (Method 5 if gas stream contains condensed water vapor) and Method 202 for the outlet.
		ii. The total excess CO burner particulate emission loadings (including condensible PM–10) shall not exceed 24 lb. PM–10/hr.	ii. Method 201/201A (Method 5 if gas stream contains condensed water vapor) and Method 202 for the outlet.
		Effective January 1, 2001, opacity shall not exceed 10% over a 6 minute average.	Method 9.

*The control efficiency (as a percentage) of the air pollution control equipment shall be determined by the following equation:
CE (%) = 100 {1-([Fho + Bho] / [Fhi + Bhi])}
Where CE = Control efficiency.
Fhi is the front half emissions for the inlet.
Bhi is the back half emissions for the inlet.
Fho is the sum of the front half emissions from each stack for the outlet.
Bho is the sum of the back half emissions from each stack for the outlet.
Inlet and all outlet stacks to be sampled simultaneously for required testing.

TABLE 2 TO § 52.676

I. Source No.	II. Source description	III. Opacity action level	IV. Reference test method
1	Railcar unloading of shale (ore) into underground hopper.	Any visible emissions	Visual observation.
2	Main shale pile (portion located on Fort Hall Indian Reservation).	Any visible emissions	Visual observation.
3	Emergency/contingency raw ore shale pile.	Any visible emissions	Visual observation.

TABLE 2 TO § 52.676—Continued

I. Source No.	II. Source description	III. Opacity action level	IV. Reference test method
4	Stacker and reclaimer	Any visible emissions	Visual observation.
5a	East shale baghouse	a. 5% over a 6 minute average	a. Method 9.
5b	East shale baghouse building	b. Any visible emissions	b. Visual observation.
6a	Middle shale baghouse	a. 5% over a 6 minute average	a. Method 9.
6b	Middle shale baghouse building	b. Any visible emissions	b. Visual observation.
6c	Middle shale baghouse outside capture hood—fugitive emissions.	c. 5% over a 6 minute average	c. Method 9.
7a	West shale baghouse	a. 5% over a 6 minute average	a. Method 9.
7b	West shale baghouse building	b. Any visible emissions	b. Visual observation.
7c	West shale baghouse outside capture hood fugitive emissions.	c. 5% over a 6 minute average	c. Method 9.
8a	a. Slag handling: slag pit area and pot rooms.	a. Until November 1, 2000, emissions from the slag pit area and the pot rooms shall be exempt from opacity limitations. Effective November 1, 2000, the opacity action level for this source shall 5% over a 6 minute average. *Exemption:* Fuming of molten slag in transport pots during transport are exempt from opacity action levels and opacity limits provided the pots remain in the pot room for at least 3 minutes after the flow of molten slag to the pots has ceased. *See also* 40 CFR 52.676(c)(4).	Method 9.
8b	b. Recycle material pile	b. Any visible emissions	b. Visual observation.
8c	c. Dump to slag pile.	c. Fuming of molten slag during dump to slag pile shall be exempt from opacity action levels.	
9	Calciner scrubbers	The calciner scrubbers shall be exempt from opacity action levels and opacity limits.	
10	Calciner cooler vents	5% over a 6 minute average	Method 9.
11	Nodule pile	10% over a 6 minute average	Method 9.
12a	North nodule discharge baghouse.	a. 5% over a 6 minute average	a. Method 9.
12b	South nodule discharge baghouse.	b. 5% over a 6 minute average	b. Method 9.
12c	North and south nodule discharge baghouse outside capture hood fugitive emissions.	c. 5% over a 6 minute average	c. Method 9.
13	Nodule fines pile	10% over a 6 minute average	Method 9.
14	Screened shale fines pile adjacent to the West shale building.	10% over a 6 minute average	Method 9.
15a	Proportioning building a. East nodule baghouse.	a. 5% over a 6 minute average	a. Method 9.
15b	b. West nodule baghouse	b. 5% over a 6 minute average	b. Method 9.
15c	c. Proportioning building—fugitive emissions.	c. Any visible emissions	c. Visual observation.
16a	Nodule reclaim baghouse	a. 5% over a 6 minute average	a. Method 9.
16b	Nodule reclaim baghouse outside capture hood—dash; fugitive emissions.	b. 5% over a 6 minute average	b. Method 9.
17a	Dust silo baghouse	a. 5% over a 6 minute average	a. Method 9.
17b	Dust silo fugitive emissions and pneumatic dust handling system.	b. Any visible emissions	b. Visual observation.
18a	Furnace building a. East baghouse.	a. 5% over a 6 minute average	a. Method 9.
18b	b. West baghouse	b. 5% over a 6 minute average	b. Method 9.
18c	c. Furnace building; any emission point except 18a, 18b, 18d, 18e, 18f, or 18g.	c. Until April 1, 2002, 10% over a 6 minute average. Effective April 1, 2002, 5% over a 6 minute average.	c. Method 9.
18d	d. Furnace #1 Medusa Andersen	d,e,f,g: 5% over a 6 minute average	d,e,f,g: Method 9.
18e	e. Furnace #2 Medusa Andersen.		
18f	f. Furnace #3 Medusa Andersen.		
18g	g. Furnace #4 Medusa Anderson.		
19	Briquetting building	Any visible emissions	Visual observation.
20a	a. Coke handling baghouse	a. 5% over a 6 minute average	a. Method 9.
20b	b. Coke unloading building	b. Any visible emissions	b. Visual observation.
21a	a. Phosphorous loading dock (phos dock), Andersen Scrubber.	a. Effective November 1, 1999, 5% over a 6 minute average.	a. Method 9.

TABLE 2 TO § 52.676—Continued

I. Source No.	II. Source description	III. Opacity action level	IV. Reference test method
21b	b. Phosphorous loading dock—fugitive emissions.	b. Effective November 1, 1999, 5% over a 6 minute average.	b. Method 9.
22	All roads	10% over a 6 minute average	Method 9.
23	Boilers	5% over a 6 minute average	Method 9.
24	Pressure relief vents	5% over a 6 minute average	Method 9.
25	Furnace CO emergency flares	Any visible emissions except during an emergency flaring caused by an emergency as defined in 40 CFR 52.626(b). Emissions during an emergency flaring caused by an emergency are exempt from opacity action level.	Visual observation.
26a	a. Existing elevated secondary condenser flare and ground flare.	a. Exempt from opacity limitations and opacity action level.	
26b	b. Excess CO burner (to be built to replace the elevated secondary condenser flare and ground flare).	5% opacity over a 6 minute average	Method 9.

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