



# Federal Register

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**Wednesday,  
August 23, 2000**

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## **Part II**

# **Environmental Protection Agency**

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**40 CFR Part 49**

**Federal Implementation Plan for the  
Astaris-Idaho LLC Facility (formerly  
owned by FMC Corporation) in the Fort  
Hall PM-10 Nonattainment Area; Final  
Rule**

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 49**

[Docket 24-7004; FRL-6846-2]

**Federal Implementation Plan for the Astaris-Idaho LLC Facility (formerly owned by FMC Corporation) in the Fort Hall PM-10 Nonattainment Area**

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA, Agency or we) is taking final action on a Federal Implementation Plan (FIP) to control particulate matter emissions from an elemental phosphorus facility owned by Astaris-Idaho LLC (formerly owned by FMC Corporation) in southeastern Idaho (Astaris facility). The Astaris facility is located on the Fort Hall Indian Reservation and in an area known as the Fort Hall PM-10 nonattainment area. The Fort Hall PM-10 nonattainment area is not in attainment with the national ambient air quality standards (NAAQS) for particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM-10). The purpose of the FIP is to impose emission limits and work practice requirements that constitute reasonably available control technology (RACT) for particulate matter and that will, in light of this area's longstanding nonattainment problem, ensure expeditious progress towards improving air quality and attaining the PM-10 standards in order to protect the public health.

**DATES:** Effective September 22, 2000.

**ADDRESSES:** Copies of all information supporting this action are available for public inspection and copying between 8:30 a.m. and 5:30 p.m. Eastern Standard Time at EPA's Central Docket Section, Office of Air and Radiation, Room 1500 (M-6102), 401 M Street, SW., Washington, DC 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. A reasonable fee may be charged for copies.

**FOR FURTHER INFORMATION CONTACT:**

Steven K. Body, EPA, Office of Air Quality (OAQ-107), 1200 Sixth Avenue, Seattle, Washington, 98101, (206) 553-0782.

**SUPPLEMENTARY INFORMATION:**

The contents of today's preamble are listed in the following outline:

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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, the February 12, 1999, FIP proposal, and the January 27, 2000 supplemental proposal from the internet at the following address: <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 as described above in the **ADDRESSES** section.

**B. Who Does This FIP Apply To?**

This regulation applies to the owner(s) or operator(s) of the elemental phosphorus facility located on the Fort Hall Indian Reservation in Idaho adjacent to Highway 30 and the State-Reservation boundary. The facility was owned by FMC Corporation until April 17, 2000. On that day, ownership and operation of the facility was transferred to Astaris-Idaho LLC (Astaris-Idaho). Astaris-Idaho is a subsidiary of Astaris LLC, a joint venture between the FMC Corporation and Solutia, Inc. A copy of the agreement between FMC Corporation and Astaris-Idaho documenting the transfer is in the docket. This regulation will also apply to any new owner or operator of the Astaris-Idaho facility in the event of a later change in ownership. All references in this notice and in the regulation to the facility will be to the "Astaris-Idaho facility."

**II. Background of the Final Rule**

Astaris-Idaho produces elemental phosphorus at its facility located on the Fort Hall Indian Reservation in southeastern Idaho near Pocatello. The Astaris-Idaho facility emits over 1400 tons of particulate matter into the atmosphere each year. Numerous exceedences of the PM-10 NAAQS, 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 Astaris-Idaho facility (the 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 Astaris-Idaho facility. 64 FR 7308 (February 12, 1999) (February 1999 FIP proposal).<sup>1</sup> 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

<sup>1</sup> EPA published a **Federal Register** document with minor corrections to the February 1999 FIP proposal on April 13, 1999. 64 FR 17990. All future references to the February 1999 FIP proposal include the corrections in the April 13, 1999, document.

Shoshone-Bannock Tribes provided oral testimony at the hearing. A copy of the transcript from the public hearing is in the docket. EPA accepted written comments on the February 1999 FIP proposal until May 13, 1999, and received timely written comments from five commenters, including Astaris-Idaho and the Shoshone-Bannock Tribes (Tribes). Additional comments on the February 1999 FIP proposal were received after the close of the public comment period. Copies of all written comments on the February 1999 FIP proposal, both timely and late, are in the docket.

After carefully reviewing the public comments, including additional technical and source test information provided by Astaris-Idaho, EPA issued a supplemental proposal in which EPA revised certain limited aspects of the original FIP proposal. 65 FR 4466 (January 27, 2000) (January 2000 supplemental proposal). EPA held public hearings on the January 2000 supplemental proposal on February 29, 2000, in Pocatello, and on March 1, 2000, on the Fort Hall Indian Reservation. Thirty-two persons provided comments over the course of the two evening sessions. A copy of the transcript from the public hearings is located in the docket. EPA solicited written comments on the January 2000 supplemental proposal until the extended date of March 13, 2000. 65 FR 8679 (February 22, 2000) (notice of public hearing schedule and extension of public comment period). EPA received written comments from 13 commenters, including the Tribes and Astaris-Idaho. Copies of all written comments on the January 2000 supplemental proposal, both timely and late, are in the docket.

After carefully reviewing and considering all comments received on the February 1999 FIP proposal and the January 2000 supplemental proposal, EPA is issuing this final FIP.

### III. Summary of the Final Rule

In issuing this FIP, EPA is exercising its discretionary authority under sections 301(a) and 301(d)(4) of the Clean Air Act (CAA or Act) to promulgate such FIP provisions as are necessary or appropriate to protect air quality within the Fort Hall Indian Reservation. EPA's ultimate goal is to ensure that all persons residing in, working in, and traveling through the Fort Hall PM-10 nonattainment area can breathe the air that meets the PM-10 NAAQS standards. EPA has used the PM-10 planning requirements applicable to States with PM-10 nonattainment areas as a guide in

determining what is necessary or appropriate for the protection of air quality in the Fort Hall PM-10 nonattainment area.

The Clean Air Act requires States to impose RACT on major stationary sources of PM-10 in moderate PM-10 nonattainment areas. See sections 172(c)(1) and 189(a)(1)(C) of the CAA. This FIP contains emission limits and work practice requirements that EPA believes represent RACT, along with related monitoring, recordkeeping, and reporting requirements, for PM-10 emissions from the Astaris-Idaho facility that emanate from the Fort Hall PM-10 nonattainment area. EPA believes that many sources at Astaris-Idaho currently employ RACT-level controls. For point sources that EPA believes currently employ RACT-level controls, the FIP imposes mass emissions limits based on current actual maximum daily emission rates from these point sources and opacity limits designed to keep PM-10 emissions at current levels. For area sources that EPA believes currently employ RACT-level controls, the FIP proposes opacity limits and work practice requirements designed to keep emissions at current levels.

The largest sources of PM-10 emissions at the Astaris-Idaho facility are the slag pit and related slag handling operations, the elevated secondary condenser and carbon monoxide (CO) ground flares, and the calciners. EPA believes that these sources, along with the phosphorous loading dock and the furnace building, do not currently employ RACT-level controls. For these sources, the FIP establishes emission limits and opacity requirements that will require process changes and additional control equipment to achieve substantial emission reductions, along with related monitoring, recordkeeping, and reporting requirements. The controls required to comply with the emission limits and work practice requirements in the FIP will be costly—an estimated \$49 million dollars in capital expenditures, and annual costs for monitoring, work practice requirements, recordkeeping, and reporting of up to \$202,000. EPA nonetheless believes the controls needed to comply with the requirements of this FIP, many of which have already been implemented, are both technologically and economically feasible. In developing the FIP, EPA has carefully evaluated alternative control technologies for each source at Astaris-Idaho, including the incremental emission reductions and estimated cost of installing, operating, and maintaining these alternative control technologies. In addition, in connection with the

settlement of alleged violations of the Resource Conservation and Recovery Act (RCRA) at the Astaris-Idaho facility, FMC Corporation<sup>2</sup> has entered into a consent agreement with the United States (RCRA Consent Decree) in which FMC has agreed to expend more than \$64 million in capital costs to implement 13 PM-10 reduction projects at the facility. Five of these projects include the controls that EPA believes are necessary to comply with the proposed FIP. EPA believes that the remaining eight projects will better enable Astaris-Idaho to comply with the requirements of the proposed FIP. The company's commitment to install and operate the 13 PM-10 reduction projects for five years as part of the RCRA settlement is persuasive evidence that the control technology identified in this FIP is both technologically and economically feasible.

EPA believes that emission reductions that will be achieved by this FIP are necessary in order to ensure that PM-10 levels in the Fort Hall PM-10 nonattainment area do not endanger public health, and that emissions reductions will be achieved on a time frame that will contribute to attainment of the PM-10 NAAQS as expeditiously as practicable. To achieve these goals, EPA believes that PM-10 emissions from the Astaris-Idaho facility must be reduced by approximately 65%, based on measured air quality and the levels of the PM-10 standards. EPA anticipates that the emission limitations and work practice requirements in this proposed FIP, when considered together, will result in an overall reduction in PM-10 emissions of almost 80%.

To further these objectives, EPA is proposing a rigorous compliance schedule. For sources that EPA believes currently employ RACT-level controls, as well as for the phosphorous loading dock, compliance with the applicable emission limits and work practice requirements is required 60 days after the effective date of the FIP. The emission limits and related control requirements for slag handling, the calciner scrubbers, and the secondary condenser flare and CO ground flare will be in place and in effect on November 1, 2000, December 1, 2000, and January 1, 2001, respectively. By January 1, 2001, emissions from the Astaris-Idaho facility are expected to be reduced by almost 80%. The last requirements of the FIP, to control fugitive emissions from the furnace building, come into effect on April 1,

<sup>2</sup> FMC Corporation retains responsibility for funding the capital costs of and for implementing the RCRA Consent Decree.

2002. Because most of the emission reductions at the Astaris-Idaho facility will occur by January 1, 2001, EPA does not expect particulate values above the level of the PM-10 NAAQS to be recorded on the Tribal monitors after that date.

#### IV. Major Issues Raised by Commenters

The following is a summary of the major issues raised in comments on the February 1999 FIP proposal (64 FR 7308 (February 12, 1999)), as well as the January 2000 supplemental proposal (65 FR 4466 (January 27, 2000)), along with a summary of EPA's responses to those issues. A separate document containing responses to all comments on the two proposals (Response to Comments) is in the docket.

##### A. Trust Responsibility and Consultation

The Tribes and several individual tribal members commented that EPA has a trust responsibility to the Shoshone-Bannock Tribes to fully consider tribal interests and protect tribal interests in carrying out its responsibilities under the Clean Air Act on Tribal lands, which includes a responsibility to consult with and fully involve the Tribes in decisions affecting the Tribes and their resources. These commenters assert that, in issuing the January 2000 supplemental proposal, EPA failed to adequately consult on a government-to-government basis with the Tribes prior to changing several requirements in the 1999 FIP proposal and failed to meet its trust responsibility toward the Tribes.

EPA acknowledges that the federal government has a trust responsibility to federally-recognized tribes, including the Shoshone-Bannock Tribes. EPA has recognized this responsibility throughout the development of the FIP and believes its actions have been consistent with its responsibility to consult with the Tribes on a government-to-government basis. EPA offered the Tribes an opportunity to provide their views and concerns before it made decisions, made a number of offers to meet with the Tribal government, and fully considered the issues raised by the Tribes prior to issuing the original and supplemental proposals, as well as this final rule.

As described in more detail in the Response to Comments, the Tribes were invited to participate in all aspects of the FIP development process that led up to and followed the February 1999 proposal. The Tribes were invited to all meetings with Astaris-Idaho to discuss Astaris-Idaho's comments on the February 1999 FIP proposal, and

representatives of the Tribes participated directly in all but one of those meetings. The Tribes were provided with the technical information and proposals submitted by Astaris-Idaho to EPA, and offered opportunities to give their views to EPA on that information and raise any concerns. Staff from the Tribes have had numerous telephone conferences with EPA, and met separately with EPA to discuss the technical issues arising from both the February 1999 FIP proposal and the January 2000 supplemental proposal. The Tribes were asked to comment on preliminary drafts of the February 1999 FIP proposal and the January 2000 supplemental proposal, and the Tribes provided their views and perspectives in writing as well as orally on those drafts. The Tribes' views and perspectives were considered by EPA prior to making decisions on the proposals and on this final rule. EPA has continued to consult with the Tribes since publication of the January 2000 supplemental proposal. EPA met with Tribal air quality staff and legal staff on several occasions to discuss the Tribes' comments on and concerns with the January 2000 supplemental proposal and sought their input on changes to be made in the final FIP. The Tribes' comments and involvement throughout this entire rulemaking process were welcome and valuable. This summary clearly documents that EPA has made a number of diligent, continuing efforts to consult with the Tribes throughout the process before making decisions on the numerous regulatory requirements established in this FIP.

The FIP that EPA is publishing today for the Astaris-Idaho facility has been designed to meet the requirements of the Clean Air Act, and to protect the members and natural resources of the Tribes. The limits that have been placed on facility emissions through a number of specific regulatory controls are expected to curb air pollution sufficiently so that air quality in the region attains the PM-10 NAAQS, national standards which EPA has established to protect human health and the environment. The requirements in the FIP also establish additional requirements that are necessary or appropriate to protect human and environmental health, in accordance with EPA's authorities under the CAA. The FIP published today establishes strict, federally enforceable requirements to control and monitor PM-10 emissions. EPA expects that these requirements will provide a verifiable means of ensuring that the facility complies with the federal

regulations and is operated in a manner that protects the health and welfare of the Tribes, its members, and its resources.

EPA believes that its actions to include the Tribes in the FIP development process and to consult with and consider the interests of the Tribes prior to making decisions have been consistent with its trust responsibility to the Tribes. *See Nance v. EPA*, 645 F.2d 701, 710-11 (9th Cir. 1981), *cert. denied*, 454 U.S. 1081 (1981). By promulgating the FIP while operating within a proactive government-to-government relationship with the Tribes, EPA has been able to fully consider the views of the Tribes. Thus, EPA is satisfied that it has consulted with the Tribes consistent with its trust responsibility to the Tribes while fulfilling its duties under the CAA.

##### B. Consideration of Information Received Outside of the Public Comment Period

The Tribes and several other commenters objected to EPA's consideration of information submitted to EPA by Astaris-Idaho after the close of the public comment period on the February 1999 FIP proposal. EPA did receive information from Astaris-Idaho after the close of the public comment period on the February 1999 FIP proposal.<sup>3</sup> However, the comment materials submitted by Astaris-Idaho contained substantively relevant information disputing the technical adequacy of certain aspects of the February 1999 FIP proposal. Section 553(c) of the Administrative Procedures Act (APA) states that administrative agencies "shall give interested persons" an opportunity to comment on proposed rulemakings. That section further states that final rulemaking action may occur only "after consideration of the relevant matter presented." In EPA's view, the information presented by Astaris-Idaho constitutes "relevant matter" which, pursuant to the APA, is required to be considered by the Agency. There is

<sup>3</sup> The Tribes also argue that EPA should not consider Astaris-Idaho's formal comments on the February 1999 FIP proposal because the copy on file with EPA is date stamped "May 14, 1999," one day after the close of the public comment period. EPA believes that it received an electronic version of Astaris-Idaho's comments on May 13, 1999. Therefore, even if Astaris-Idaho's comments were late, the comments were only one day late. However, what is more relevant is that EPA was aware that Astaris-Idaho would be submitting comments on the FIP. Astaris-Idaho had already provided EPA with a substantial portion of the information that comprised its comments in documents that were submitted to EPA and the Tribes on April 23 and April 27, 1999—well before the close of the public comment period.

nothing in the APA that would preclude EPA from considering information received after the close of the public comment period. In addition, EPA has a long-standing, historical policy of accepting and considering all written comments submitted during rulemakings, even those submitted after the close of the public comment period.<sup>4</sup> Congress effectively adopted this policy when it included detailed public record requirements for certain rulemakings under subsection 307(d) of the Clean Air Act. This action is not a rulemaking under subsection 307(d), since this FIP is being promulgated subject to requirements imposed under subsections 301(a) and 301(d) of the Act. However, the process being followed in this rulemaking is substantially similar to that followed for rulemakings under subsection 307(d) of the Act. In litigation challenging EPA's rulemaking process, courts have upheld the Agency's practice of considering and including in the public record or docket for final rulemakings documents received after the close of the comment period that are materially relevant. See *Air Pollution Control District of Jefferson County, Kentucky v. United States Environmental Protection Agency*, 739 F.2d 1071, 1079-1080 (6th Cir. 1984); *Sierra Club v. Costle*, 657 F.2d 298, 397-98 (D.C. Cir. 1981). In fact, EPA failure to consider information of the type submitted by Astaris-Idaho would be a violation of the APA and could significantly delay promulgation of the FIP. If the FIP were challenged on grounds that information of central relevance to the rulemaking had not been considered by EPA, a court, upon such a determination, would likely remand the FIP to EPA for further consideration. However, given that EPA has made the information itself, as well as the adjustments it has proposed to make to the FIP in light of the additional data, fully available for public review through notice and comment, neither the commenters specifically nor the public in general were denied an opportunity for meaningful public participation. Indeed, EPA also received

comments after the close of the public comment period on both the February 1999 FIP proposal and the January 2000 supplemental proposal from the Tribes and members of the public. Consistent with the APA requirements and Agency policy, EPA has considered and responded, without exception, to all comments received during this FIP rulemaking, and, moreover, has put all the comments into the final rulemaking docket, including all those that were received after the close of the several public comment periods.

#### C. Scope of the FIP

The Tribes commented that the focus of the FIP is too narrow in two respects. First, the Tribes contend that the FIP is too narrow in its geographic coverage in that it only applies to the Astaris-Idaho facility and does not address the entire Fort Hall PM-10 nonattainment area. In this regard, the Tribes point to a resolution of the Fort Hall Business Council which requested that the FIP cover the entire nonattainment area. A major concern of the Tribes is that a major source of air pollution could move into the Fort Hall PM-10 nonattainment area without adequate controls and cause or contribute to violations of the PM-10 NAAQS. Second, the Tribes contend that the FIP does not contain all of the elements normally associated with a State implementation plan (SIP) under Title I of the Clean Air Act, such as reasonable further progress, an emission inventory, identification and quantification, permits for new and modified major stationary sources, other measures such as enforceable emission limits, the elements of section 110(a)(2) of the Act, and contingency measures. The Tribes contend that the FIP should contain all of the elements that a State must include in a moderate PM-10 nonattainment SIP.

As discussed above in section III, in promulgating this FIP, EPA is exercising its discretionary authority under sections 301(a) and 301(d)(4) of the Clean Air Act and 40 CFR 49.11(a) to promulgate such FIP provisions as are necessary or appropriate to protect air quality within the Fort Hall Indian Reservation. The Title I planning requirements of the Clean Air Act applicable to States do not directly apply to EPA in promulgating a Federal Implementation Plan in Indian Country although, as stated in the FIP proposal, EPA used the planning requirements applicable to States with PM-10 nonattainment areas as a guide in developing this FIP. See 64 FR at 7313.

Because of the serious PM-10 nonattainment problem that exists in

the Fort Hall PM-10 nonattainment area, EPA believes it is appropriate to focus this FIP on the sources that cause or contribute to the air quality problem in the area and the elements applicable to States with PM-10 nonattainment areas that will address the PM-10 air quality problem as quickly as possible. As stated in the FIP proposal, EPA believes that the primary cause of the PM-10 problem in the Fort Hall PM-10 nonattainment area is primary PM-10 emissions from the Astaris-Idaho facility. 64 FR at 7309, 7321-7323. There are no other major stationary sources in the nonattainment area and the five other minor stationary sources in the nonattainment area collectively account for less than 1% of PM-10 emissions from stationary sources in the nonattainment area, with Astaris-Idaho emitting more than 99% of all such emissions. Although area source emissions account for approximately 43% of all PM-10 emissions in the nonattainment area, these area source emissions are spread out over the entire nonattainment area and EPA believes these emissions have an insignificant impact on the PM-10 violations that have been recorded. The Source Apportionment Study, which is discussed in the January 2000 supplemental proposal and is included in the docket, supports the conclusion that the PM-10 exceedences are local in nature and points conclusively to Astaris-Idaho as the source of the exceedences on the Tribal monitors. 65 FR at 4481-4482.

EPA did receive a copy of a resolution enacted by the Fort Hall Business Council, the governing body of the Shoshone-Bannock Tribes, which acknowledged EPA's efforts in the development of a FIP proposal. A careful reading of the resolution indicates that the Tribes were requesting that EPA promulgate a FIP regulating PM-10 emissions for all sources in the PM-10 nonattainment area and not just for the Astaris-Idaho facility. EPA had not understood this was the case initially because the resolution also expresses support for the draft FIP that EPA had been developing in coordination with the Tribes which covered only the Astaris-Idaho facility. In addition, the resolution was received by EPA just shortly before the FIP proposal was signed by Administrator Browner.

EPA now understands that the Tribes desire is for EPA, and not the Tribes, to take the initial lead in developing restrictions on PM-10 emissions from other sources within the Fort Hall PM-10 nonattainment area, and that the Tribes intend to take the lead in

<sup>4</sup> "[E]PA must provide for the most extensive public participation possible in decision-making \* \* \* Therefore, after a rule is proposed \* \* \* [a]ll written comments received from people outside the Agency (whether during or after the comment period) [must be] entered in the public record for the rulemaking \* \* \* Of paramount importance, however, is ensuring any new data or information affecting the decision is promptly placed in the public record." Memorandum from Carol M. Browner to all EPA employees, August 8, 1993. See also original Memorandum on EPA "open rulemaking" policy (known as the "Fishbowl Memo") from William D. Ruckelshaus, May 19, 1983.

promulgating an implementation plan for the remainder of the Fort Hall Indian Reservation. EPA does not believe, however, that promulgation of final PM-10 control requirements for the Astaris-Idaho facility, the major if not sole contributor to the PM-10 violations that have been recorded on the Reservation, should be delayed while EPA considers whether imposition of requirements for PM-10 emissions on other sources of PM-10 within the nonattainment area are necessary or appropriate to safeguard public health and the environment. In exercising its discretionary authority under section 301(a) and 301(d)(4) of the Clean Air Act and 40 CFR 49.11(a) to promulgate such FIP provisions as are necessary or appropriate to protect air quality within Indian country, EPA has stated that it will carry out this authority in a prioritized way, beginning with the facilities that pose the greatest threat to public health and the environment. 64 FR 8247, 8255 (February 12, 1999). Accordingly, EPA intends to go forward with this FIP for the Astaris-Idaho facility and, as it has stated throughout this rulemaking process, will address particulate emissions from other sources in the Fort Hall PM-10 nonattainment area in a subsequent rulemaking. EPA believes this approach is the best way to address the Tribes' and the public's concern that the Astaris-Idaho facility be subject to limits on its particulate emissions as soon as possible.

With respect to the concern that this FIP does not contain all of the elements a State must address in a PM-10 nonattainment SIP, EPA again notes that, in promulgating this FIP, EPA is exercising its discretionary authority under sections 301(a) and 301(d)(4) of the Clean Air Act and 40 CFR 49.11(a) to promulgate such FIP provisions as are necessary or appropriate to protect air quality within the Fort Hall Indian Reservation. EPA focused the efforts of this FIP rulemaking on the elements that would bring the area into attainment with the PM-10 NAAQS as expeditiously as possible: imposing RACT on Astaris-Idaho and demonstrating that the Fort Hall PM-10 nonattainment area will attain the PM-10 standard once these RACT-level control requirements are in place at the Astaris-Idaho facility. Again, as stated in its proposal, EPA will address the other PM-10 planning elements that are applicable to States with moderate PM-10 nonattainment areas as necessary or appropriate in future rulemaking proceedings. 64 FR at 7342.

It should be noted, however, that although the focus of this FIP is on implementation of RACT and

demonstrating attainment, many of the specific planning elements usually required of States in PM-10 nonattainment SIPs are in fact addressed by this FIP. For example, EPA believes that the compliance dates for the control measures promulgated in this FIP are consistent with the quantitative milestone reporting requirements. Similarly, implementation of the control measures in accordance with the compliance schedule will result in annual incremental reductions that represent reasonable further progress, as required by sections 172(c)(2) and 189(c)(1) of the Act. The FIP is based on and does include a comprehensive, accurate, and current inventory of reasonable worst case PM-10 emissions from the Astaris-Idaho facility. EPA revised the emission inventory in the January 2000 supplemental proposal and has made further refinements in this final action. As discussed in more detail below in section VI, EPA believes the revised emission inventory represents the best available information regarding PM-10 emissions from the Astaris-Idaho facility.

A major concern of the Tribes and other commenters relates to EPA's authority, resources, and plans for ensuring implementation and enforcement of the FIP. That issue is discussed in more detail in section IV.O. below. Another major concern of the Tribes and other commenters is the requirement of section 189(e) of the CAA that a State SIP impose RACT on major stationary sources of PM-10 precursors that contribute to exceedences of the PM-10 standards. That issue is discussed in more detail in section IV.N. below. With respect to contingency measures, the FIP does include a cushion of over-control: EPA has determined that a 65% reduction in daily PM-10 emissions is needed to attain the PM-10 standards and expects that, after full implementation of all control measures in the FIP, PM-10 emissions will be reduced by almost 80% on a 24-hour basis. In addition, EPA intends to propose in a separate **Federal Register** published in the fall of 2000 a lower emission limit for the facility's calciner cooler vents as a contingency measure.<sup>5</sup> Once finalized as a contingency measure, the reduced emission limit for the calciner coolers

<sup>5</sup> A contingency measure is a requirement that becomes effective without further action by EPA upon a determination that the area has failed to achieve reasonable further progress or to attain the PM-10 NAAQS by the attainment date. See generally 57 FR 13510-13512 and 13543-13544.

would become effective when triggered without further administrative action.

It is true that the FIP does not include a permit program for the construction and operation of new and modified major stationary sources of PM-10 that meets the requirements of sections 172(b)(6) and 173 of the Clean Air Act and 40 CFR 51.165 (often referred to as a "Part D NSR program") or a program for the review and permitting of minor sources, as is required of States in PM-10 nonattainment SIPs. See sections 110(a)(2) and 189(a). EPA is addressing the issue of new sources of PM-10 in several respects. First, EPA, in a rulemaking process separate from this FIP for Astaris-Idaho, is developing a national rule that would apply to the construction or modification of new minor sources in Indian Country, and also extend to Indian Country the requirements of Part D NSR for new major stationary sources and major modifications to major stationary sources in nonattainment areas. To the extent a new major source of PM-10 locates in the Fort Hall PM-10 nonattainment area before EPA revises 40 CFR part 52 to apply in Indian Country, it is EPA's intention to act as necessary or appropriate to promulgate a source-specific FIP setting out the permitting requirements for the new or modified source. EPA has taken this approach for a new major source that wanted to construct a new major facility on the reservation of the Salt River Pima-Maricopa Indian Community, which is located in a nonattainment area. 64 FR 65660 (November 23, 1999). Thus, EPA does not agree that a new major source could locate within the Fort Hall PM-10 nonattainment area without installing controls that would assure protection of the PM-10 NAAQS. Finally, as discussed in the January 2000 supplemental proposal, EPA has revised the FIP to better address new construction and modifications at the Astaris-Idaho facility. 65 FR at 4477. The FIP requires Astaris-Idaho to notify EPA and the Tribes at least 90 days prior to beginning construction of any new source of PM-10 or a modification to an existing source that would result in an increase of PM-10 emissions. After 90 days, Astaris-Idaho would be authorized to construct the new or modified source, but the source would be subject to an opacity limit of 10% and must be addressed in the facility's operation and maintenance plan, unless EPA established alternative or additional emission limitations or work practice requirements for the source through a revision to the FIP.

Please refer to the Response to Comments document for a more

detailed discussion of the other PM-10 planning issues referenced earlier.

#### *D. RCRA Consent Decree*

The Tribes and several other commenters expressed concern that the control technologies relied on in the FIP were pre-selected by Astaris-Idaho as part of the RCRA Consent Decree before the FIP process was started and without consideration of comments by the Tribes and public. These commenters believe that EPA made a decision to take the projects selected by Astaris-Idaho in the RCRA process outside of the public comment process and transfer each one of them over to satisfy this RACT FIP. As a consequence of this, these commenters assert that EPA has proposed a FIP that does not adhere to the Clean Air Act requirements for nonattainment areas and that Astaris-Idaho has had too much control in determining the outcome of the FIP.

EPA has considered technical information and comments from Astaris-Idaho, as it has from all commenters, but, as discussed below, EPA does not agree that Astaris-Idaho is or has been in control of the outcome of the FIP, nor with the corollary implication that public comment, including comments from the Tribes, has been meaningless or unfairly prejudiced. Although the FIP now under consideration was not proposed in the **Federal Register** until February 1999, after the RCRA Consent Decree was signed by the United States and FMC in October 1998, the control strategy for the FIP has been under development and discussion with Astaris-Idaho, the Tribes, the local community, and EPA since the early 1990s. Environmental Quality Management, Inc. (EQM), a contractor with extensive knowledge of the phosphorus industry in general and experience with the Astaris-Idaho facility in particular, was hired in the mid-1990s to conduct an evaluation of alternative control technologies for each source at Astaris-Idaho that could be used as the basis for a determination of RACT. Based on EQM's work, EPA ultimately presented a workshop in Fort Hall and Pocatello in September 1997 in which EPA explained the basic control strategy for the FIP that EPA intended to propose. That presentation included a discussion of installation of hot pour pot handling to control emissions from slag handling, upgrades to the calciner scrubbers, controls on the calciner cooler vents, and the enclosure and control of the secondary condenser flare and CO ground flare. In the final RACT report issued by EQM in July 1998 (EQM RACT Report), hot pour pot handling was identified as the best

control option for slag handling at Astaris-Idaho and spray towers were identified as the best control option for the calciner scrubbers at Astaris-Idaho. The EQM RACT Report stated that, with respect to the secondary condenser flare and CO ground flare, there were no options for control of P<sub>2</sub>O<sub>5</sub> emissions from CO gas flares in the phosphate industry. EQM RACT Report, p. 113. The report goes on to discuss the theoretical options for the control of these flares, including combustion of the CO gases in an enclosed device and control by a wet scrubber.

During settlement negotiations to resolve the RCRA violations at the Astaris-Idaho facility, Astaris-Idaho provided EPA and the Tribes with a document entitled "RACT Project Descriptions—Astaris-Idaho—15 October 1997." That document included a proposal to install hot pour pot handling, to increase the performance of the scrubbing control system from 50–60% to 80–90%, and to direct all excess CO gas to an enclosed burner/combustor device with the off gas sent to a high efficiency scrubber. Astaris-Idaho's proposal also included ten other projects to reduce PM-10 emissions at Astaris-Idaho. Hot pour slag handling, upgrades to the calciner scrubbers, and control of the excess CO gas, however, were, and have always been, the three projects believed by EPA to be essential to bringing the Fort Hall PM-10 nonattainment area into attainment with the PM-10 NAAQS. Moreover, they represent RACT-level controls for those sources. Thus, the control equipment and project upgrades that are the basis of the FIP were in fact not pre-selected by Astaris-Idaho as part of the RCRA Consent Decree, but instead driven by EPA's preliminary determination of what represented RACT-level controls. Although it is true that Astaris-Idaho began to design and implement these controls before the FIP went out for public notice and comment, the Tribes and the public were aware of what EPA believed represented RACT-level controls at least since the public workshops in Fort Hall and Pocatello in September 1997. During the public comment period on the February 1999 FIP proposal and the January 2000 supplemental proposal, no commenter has suggested any better technology that could achieve higher emission reductions for slag handling, the calciner scrubbers, or the flares. The Tribes have suggested additional controls for the furnace building (i.e., enclosing the building) which, as discussed below in section IV.I., EPA believes goes far beyond RACT in terms

of cost effectiveness. The Tribes and the members of the public have commented that EPA should consider additional controls on the calciner cooler vents in light of the recent information showing that PM-10 emissions from this source are much higher than originally thought. As discussed in section IV.H. below, EPA intends to propose in the fall a reduced emission limit for the calciner cooler vents based on the installation of additional controls that would serve as a contingency measure.

In short, the RCRA Consent Decree and the FIP are two separate mechanisms by which EPA is bringing about PM-10 emission reductions in the Fort Hall PM-10 nonattainment area. The RCRA Consent Decree was designed to address past violations of the RCRA requirements, whereas the FIP is designed to implement RACT and ensure ultimate attainment of the PM-10 NAAQS. As part of the RCRA Consent Decree, Astaris-Idaho did commit to implement 13 PM-10 emission reduction projects ahead of the schedule that would have otherwise been required in the FIP, and Astaris-Idaho received some reduction in the RCRA penalty for this agreement. This agreement was done in accordance with EPA's policies for Supplemental Environmental Projects, and is a common feature in settlements in these types of enforcement cases. See "Supplemental Environmental Projects Policy," 63 FR 24976 (May 5, 1998). Although there is some overlap in the requirements of the RCRA Consent Decree and the requirements of the FIP, in each case EPA issued each document in accordance with the governing environmental statute, regulations, and policies of the Agency. As is evident from even a quick review of the RCRA Consent Decree and the FIP, the FIP is separate from and far more extensive and stringent than the RCRA Consent Decree with respect to PM-10 emission reduction requirements.

#### *E. Reliability of Source Test Data Submitted by Astaris-Idaho*

The Tribes, the State of Idaho, and other commenters questioned EPA's reliance on source test data submitted by Astaris-Idaho after the February 1999 FIP proposal. Because this information was based on source tests conducted by Astaris-Idaho that were not observed by EPA or the Tribes, these commenters do not believe EPA should have revised the emission inventory or the proposed emission limits to allow higher emission levels from Astaris-Idaho based on this source test data. The Tribes, the State of Idaho, and many citizens also commented that EPA should not

exclude condensible PM-10<sup>6</sup> from the emission limits because the source tests conducted by Astaris-Idaho did, in fact, measure condensible PM-10 from these sources.

Astaris-Idaho did submit more recent source test data it collected in response to the February 1999 FIP proposal. EPA has reviewed the tests and believes, with some exceptions related to condensible particulate matter reported from sources at ambient temperatures, that the recent test data are more representative of current conditions at the Astaris-Idaho facility than the previously available information. With respect to many sources, the recent source test data show that filterable PM-10 emissions<sup>7</sup> from these sources are less than shown by previous source tests and, based on its review of the results, EPA has reduced the emission limits on filterable PM-10 for these sources. For four other sources (the west shale baghouse, the calciner scrubbers, the calciner cooler vents, and the excess CO burner), EPA has increased the emission limits based on its review of information from Astaris-Idaho showing that emissions from these sources are higher than previously shown. EPA has explained these changes in great detail in the January 2000 supplemental proposal, elsewhere in this notice, and in the Response to Comments. Neither the Tribes nor any other commenter has provided information to show that the recent source test data provided by Astaris-Idaho do not accurately reflect current reasonable worst-case emissions of filterable PM-10 at the Astaris-Idaho facility. Issues relating to the reliability of the condensible PM-10 emission data is discussed in section IV.F below.

It is important to remember that, at the time of the February 1999 FIP proposal, EPA believed that Astaris-Idaho emitted 6920 pounds of PM-10 per day and that emissions would be reduced to approximately 2164 pounds per day, a reduction of 69%. EPA now believes that Astaris-Idaho emits more

than 15,000 pounds of PM-10 per day under reasonable worst case conditions, but anticipates that the FIP will reduce PM-10 emissions from Astaris-Idaho to approximately 3200 pounds per day, a reduction of almost 80%. Thus, although emissions after the FIP will be higher under the final rule (as compared to the February 1999 FIP proposal), the improvement in air quality, when compared to existing emissions, should be greater than expected under the February 1999 FIP proposal.

#### F. Emission Limits for Sources at RACT

As stated in the preamble to the February 1999 FIP proposal, we believe that many of the sources at Astaris-Idaho 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 13 (nodule reclaim baghouse); source 15a and 15b (east and west nodule discharge baghouses); source 16a (nodule stockpile baghouse)<sup>8</sup>; 17a (dust silo baghouse); sources 18a and 18b (furnace building east and west baghouses); source 18d, 18e, 18f, and 18g (furnace building Medusa-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 Astaris-Idaho during the public comment period, EPA determined that the mass emission limits proposed for the above-identified sources were not consistent with current emission levels. The proposed mass emission limits were derived from the 1996 emission inventory, which included only filterable PM-10 emissions using EPA Method 5 and did not consider condensible PM-10 emissions. In the February 1999 FIP proposal, however, we proposed EPA Methods 201/201A and 202 as the reference test methods for determining compliance with the proposed mass emission limits. Method 201/201A measures all filterable PM-10 and Method 202 measures condensible PM-10. Thus, the proposed reference test method required 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 address this issue, EPA proposed in the January 2000 supplemental proposal that, for these sources, condensible emissions would not be included in the emission limit and that Method 202 would be required for informational purposes only (that is, not as part of the reference test method).

It is true that the source tests conducted by Astaris-Idaho show the presence of condensible PM-10 emissions from these sources. However, this is a result that would not normally be expected. Except for the calciner cooler vents, the calciners, and the excess CO burner, the PM-10 sources at Astaris-Idaho have stack temperatures at, or near, ambient temperature. Therefore, condensible particulate should already have condensed, that is, changed from a gaseous to a particulate state, and, therefore, should not be measurable by the Method 202 source tests. Given that these sources are not high temperature sources, it is likely that the particulate measured by Method 202 is an artifact of the sampling method, a sampling error, or a contaminant in the sample. To determine if the condensible PM-10 measured at these sources represents real emissions, the material collected by Method 202 in the source tests would need to be chemically analyzed to determine its composition and source. Until the condensible material is chemically analyzed or additional source tests for condensible particulate emissions are conducted for sources at Astaris-Idaho at ambient temperatures, EPA believes it would be inadvisable to consider the condensible particulate matter in establishing emission limits for these sources. To do so could result in an emission limit far higher than appropriate to ensure PM-10 emissions remain at current levels. Requiring Astaris-Idaho to conduct source tests with Method 202 for informational purposes will allow EPA to further analyze whether the condensible particulate matter measured in the source tests is an artifact or is being actually measured, and determine whether additional controls may be necessary. 65 FR at 4468-4469. At the same time, because the source test data submitted by Astaris-Idaho showed that filterable PM-10 emissions for 13 of these sources (as well as for the phos dock scrubber) was lower than previously realized, EPA proposed to reduce the emission limits for these 14 sources to ensure emissions do not increase above existing levels. 65 FR at 4469.

<sup>6</sup> Condensible particulate matter refers to material that is not particulate matter at stack conditions but which condenses or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack. The condensible emissions form particles in the PM-10 size range and are considered PM-10 emissions. See 57 FR 13498, 13542 (April 16, 1992). Method 202 is the EPA reference test method for measuring condensible PM-10. 40 CFR part 51, subpart M (Method 202).

<sup>7</sup> Filterable particulate matter refers to material that is particulate matter at existing gas stream temperatures and conditions. Method 201/201A is the EPA reference test method for measuring filterable PM-10 emissions. 40 CFR part 51, appendix M (Method 201/201A). Method 5 measures filterable total suspended particulate emissions. 40 CFR part 60, appendix A (Method 5).

<sup>8</sup> As discussed below in section V.C, EPA source 13 is now known as the "nodule reclaim baghouse" and source 16a as the "nodule stockpile baghouse."

These commenters also stated that EPA should conduct another RACT analysis for these sources because the previous RACT analysis did not consider condensible PM-10 emissions from these sources. EPA disagrees that the potential presence of condensible emissions from these sources would change the RACT analysis. First, as discussed above, EPA believes it is very unlikely that condensible PM-10 is in fact being emitted from these sources because the emissions are already at or near ambient temperatures. EPA has advised States that condensible PM-10 emissions need to be controlled as part of implementing RACT-level controls only where condensible PM-10 is determined to be a significant portion of the emissions from an existing stationary source. See 57 FR 13498, 13543 (April 16, 1992). Even if the condensible emissions measured from these sources are assumed to represent actual PM-10 emissions, among other things, the incremental cost to control condensible PM-10 from the material handling sources in this category (the sources controlled by baghouses) would be very high, well in excess of what EPA would consider to be reasonably available (*i.e.*, RACT) because traditional methods of control such as baghouses are not effective for controlling condensible particulate matter and any condensible fractions collected by other available control devices would be extremely small. Also, to capture the condensible fraction, it would have to be condensed from vapor to particulate using techniques such as gas cooling, capillary condensation, or carbon adsorption. However, no abatement systems of this type are known to be used for controlling particulate matter from material handling sources or are defined as RACT for material handling sources in any industry. The furnace building Medusa-Andersen scrubbers and the phos dock scrubber are controlled by scrubbing systems that do control condensible PM-10 if in fact condensible PM-10 is being emitted from these sources.<sup>9</sup>

Astaris-Idaho commented that the source test data provided by Astaris-Idaho, which EPA relied on to reduce the emission limits for the 14 sources discussed above, did not reflect reasonable worst case emissions. Moreover, Astaris-Idaho argued, EPA

erred in relying on the average of the three source test runs, rather than the highest source test run for each of these sources. Astaris-Idaho therefore requested that EPA increase the emission limit for several of these sources. EPA notes that Astaris-Idaho submitted the average of the three runs, not the individual source test runs, with its comments on the February 1999 FIP proposal. Moreover, it submitted the source test data to EPA as being representative of emissions from these sources and without qualification. In any event, a source test using Method 201/201A consists of the average of three individual runs, not the results of an individual run or even the highest run. The fact that an individual source test run exceeds the emission limit would not of itself represent a violation of the emission limit.

In proposing the revised emission limits for these sources in the January 2000 supplemental proposal, EPA took the average of the three test runs and added a small margin to allow for normal variability in source test results. Because the data set on which EPA was relying then was limited, in this final action EPA has increased the limit slightly for six sources: middle shale baghouse (source 6a) from 0.30 pounds per hour (lb/hr) to 0.50 lb/hr; west shale baghouse (source 7a) from 0.20 to 0.50 lb/hr; east nodule baghouse (source 15a) from 0.50 lb/hr to 0.60 lb/hr; nodule stockpile baghouse (source 16a) from 0.20 lb/hr to 0.30 lb/hr; furnace building-east baghouse (source 18a) from 0.75 lb/hr to 0.80 lb/hr; and furnace building-west baghouse (source 18b) from 0.75 lb/hr to 0.80 lb/hr. The increases range from 0.05 to 0.30 lb/hr. In contrast, EPA has lowered the emission limit for the west nodule baghouse (source 15b) from 0.50 lb/hr to 0.30 lb/hr because the highest test run was 0.248 lb/hr, with an average of 0.202 lb/hr. The net change in emissions from these sources is an increase of 0.60 lb/hr. EPA believes this is an insignificant increase from that proposed in the January 2000 supplemental proposal. However, the changes should provide Astaris-Idaho with some level of confidence that it will be able to operate these sources, which EPA believes currently employ RACT-level controls, without needing to install additional controls. These increases will provide a minimum cushion of 20% beyond the recorded source test results for each of these sources.

EPA has not increased the emission limits for the following other sources as Astaris-Idaho requested: the furnace building Medusa-Andersen scrubbers

(sources 18d, 18e, 18f, and 18g) and the coke handling baghouse (source 20a). The emission limit of 1.70 lb/hr for the coke handling baghouse is more than 30% above the source test result for this source (the average of the three source test runs). In addition, in commenting on the February 1999 FIP proposal, Astaris-Idaho did not contest the numerical value of this limit, but instead only requested that the limit not apply to condensible PM-10 emissions. EPA has made that change. With respect to the Medusa-Andersen scrubber stacks on the furnace building, Astaris-Idaho submitted test data comprising a total of 12 source test runs on all four stacks, which are similar in design and operation and control similar sources. Only one of the 12 source test runs (stack 1—source 18d) was above the 2.0 lb/hr limit proposed by EPA. For the three other furnace scrubber stacks, the highest source test run for any of the stacks was 1.520 lb/hr, well below EPA's 2.0 lb/hr limit, and the average of the three runs for each of the these three furnace scrubber stacks was less than 1.0 lb/hr. EPA believes that the source test data provides sufficient evidence that Astaris-Idaho can comply with an emission limit of 2.0 lb/hr for each of the four furnace scrubber stacks. In this regard, EPA again notes that the source test run of 2.634 for stack 1 would not, of itself, represent a violation of the emission limit of 2.0 lb/hr, because a source test consists of three runs that are averaged for the purpose of determining compliance with the standard. The calciner cooler vents are discussed in section IV.H. below.

#### G. Emission Limits for Calciners

The February 1999 FIP proposal proposed a mass concentration limit for the calciner scrubbers of 0.005 grains per dry standard cubic foot (gr/dscf). During the public comment period on the February 1999 FIP proposal, Astaris-Idaho 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 result, according to Astaris-Idaho, was an emission limit that was not achievable by Astaris-Idaho with the installation of RACT-level controls. Astaris-Idaho also stated that the emission limit was inconsistent with the performance criteria for the calciner scrubbers agreed to by EPA and Astaris-Idaho in the RCRA Consent Decree. After reviewing the information presented by Astaris-Idaho, EPA agreed that existing emissions from the calciner scrubbers

<sup>9</sup> EPA also notes that the State of Idaho does not, to EPA's knowledge, regulate or require testing of condensible PM-10 emissions using Method 202. The PM-10 SIP submitted by Idaho for the neighboring Portneuf Valley PM-10 nonattainment area does not discuss, regulate, or require sources to measure condensible PM-10 emissions.

had been underestimated in the February 1999 FIP proposal. EPA concluded that a more accurate estimate of current reasonable worst case PM-10 emissions from the calciner scrubbers was 0.043 gr/dscf using Method 5 and Method 202. 65 FR at 4469-4471.

EPA further determined that enhancing the scrubber control system to achieve a control efficiency of at least 90% was reasonably available and, thus, constituted RACT-level controls. A 90% control efficiency would result in a decrease in emissions from the calciner scrubbers of approximately 50%. To effect this, EPA proposed an emission limit of 0.022 gr/dscf (with Method 5 and Method 202 as the reference test methods) for the calciner scrubbers. EPA also proposed to require that the pollution control equipment on the calciner scrubber stacks achieve at least a 90% control efficiency under all operating conditions to ensure that the modified scrubbing control system was being properly operated and maintained at all times. 65 FR at 4469-4471.

The Tribes, the State of Idaho, and members of the public expressed concern over EPA's proposal to increase the emission limit for the calciner scrubbers. These commenters believed that EPA had not adequately demonstrated that an emission limit of 0.022 gr/dscf (for both filterable and condensible PM-10) was the lowest emission limit that the calciner scrubbers are capable of meeting using control technology that is reasonably available in light of economic and technological considerations. Astaris-Idaho also commented that it could not demonstrate a 90% control efficiency for low inlet loadings during which PM-10 emissions at the outlet would be low. Astaris-Idaho therefore requested that EPA eliminate the control efficiency requirement or restrict the requirement to higher inlet loadings. To support its claims, Astaris-Idaho submitted additional information regarding source tests it has conducted with different pilot technologies in an attempt to reduce emissions from the calciner scrubbers. After reviewing these comments, as well as the additional source test data provided by Astaris-Idaho, EPA has determined that reasonably available control technology can, in light of technological and economic considerations, achieve emission limits for the calciner scrubbers lower than the limits proposed in the January 2000 supplemental proposal.

Astaris-Idaho's pilot studies of improvements to the calciner scrubbers utilized two different technologies: dry

lime and water injection.<sup>10</sup> The source test results for each technology are summarized in the docket. See Memorandum from Paul Boys to Julie Vergeront and Steve Body, "Technical Recommendation for the Astaris-Idaho LLC Calciner Scrubber," dated June 29, 2000, Attachment 2. The emission test run results from trials with dry lime ranged from 0.0014 to 0.0145 gr/dscf for filterable PM-10 and from 0.0096 to 0.0317 gr/dscf for total PM-10.<sup>11</sup> In addition to reducing PM-10 emissions, the dry lime has the added benefit of reducing sulfur dioxide emissions. When dry lime is injected at a rate of 900 to 1000 lb/hr, sulfur dioxide emissions were reduced by about 53%. Source test runs with water injection showed results ranging from 0.0019 to 0.0079 gr/dscf for filterable PM-10 emissions and from 0.0089 to 0.0262 gr/dscf for total PM-10 emissions.<sup>12</sup> In February 1999, Astaris LLC conducted several tests while using cleaner water in the existing scrubber system. These tests demonstrated that the water quality in the scrubbing system has an influence on the emissions and that cleaner water can also reduce the PM-10 emissions to some extent.

The test data gathered to date for the calciner scrubbers show that a significant portion of the total PM-10 emissions is attributable to condensible PM-10. The total amounts of PM-10 emissions and the percentage that appears to represent condensible particulate emissions varies between data sets and has not been sufficiently characterized by chemical speciation to reliably explain what the results actually reveal and consequently what type of control strategy would be most effective in reducing those emissions. EPA suspects that a portion of the PM-10 that is reported as condensible particulate may well be an artifact of the test procedure due to absorption and reaction of gases and/or contamination of test trains during handling and cleanup. Therefore, EPA has decided that, rather than establishing a single emission limit for the total PM-10 emissions, it is more appropriate to establish one emission limit that applies to filterable and another emission limit that applies to total PM-10 emissions. This approach is best designed to assure

<sup>10</sup> Astaris-Idaho also conducted trials using lime slurry. This approach was not successful due to excessive buildup of lime deposits on the walls of the calciner windbox and ductwork.

<sup>11</sup> These ranges do not include data from tests conducted in October 1999 and April 2000. According to Astaris-Idaho, these data have limited utility due to adverse water quality in the scrubbing system.

<sup>12</sup> See footnote 11.

that overall PM-10 emissions are reduced.

Based on the emissions data discussed above and other available information, EPA believes that the calciner scrubbers can achieve an emission limit of 0.0080 gr/dscf for filterable PM-10 and 0.0180 gr/dscf for total PM-10 using cleaner water in the calciner scrubbing system in conjunction with either water injection or dry lime technology. These values for emission limits provide a moderate margin above the average values from the trial data, are slightly higher than all but one of the individual test data points for dry lime injection, and slightly higher than all but two data points for water injection.<sup>13</sup> EPA believes that Astaris-Idaho will be able to optimize a full-scale control system and thereby achieve even better results than they have shown in the trials. The emission limits allow Astaris-Idaho the flexibility to use either dry lime injection or water injection, in conjunction with improved secondary scrubber water quality (lower total dissolved solids), to achieve the limits, or any other technology of their choosing, so long as it achieves the final emission limits established in the FIP, and otherwise complies with the requirements of the Clean Air Act and EPA implementing regulations.

Astaris-Idaho requested that the emission limit for the calciner scrubbers be averaged over all eight calciner stacks. With a "bubble", or averaging, approach, the source test results for each of the calciner scrubber stacks would be added together and then divided by the total number of calciner scrubber stacks, and the resulting average compared to the emission limit. Although "bubbling" among stacks would reduce the inherent variability of any single source test run, EPA is concerned that this approach could mask performance problems that might exist in any one of the four calciner scrubbers or the two calciners. To minimize this risk, use of a bubbling approach for all calciner scrubbing stacks would require that all eight stacks be tested simultaneously or within a short duration under the same operating conditions, a difficult task given the number of stacks involved. EPA nonetheless believes that some limited "bubbling" or averaging can be accommodated while still ensuring that each calciner scrubbing system is being operated at optimal conditions. Accordingly, EPA has established that the limit for the calciner scrubbers as the arithmetic average of source test

<sup>13</sup> See footnote 11.

results from the four individual calciner stacks from a single calciner. The individual source tests for these four stacks must be conducted simultaneously or at most within three hours of each other under the same operating conditions. This approach should reduce some of the variability in the test data results and yet provide a more representative indication of how each calciner is operating.

In reaching the determination that an emission limit of 0.008 gr/dscf for filterable and 0.018 gr/dscf for total PM-10 emissions represents RACT for the calciner scrubbers, EPA has re-evaluated the various control technologies for the calciner scrubbers considered by EPA as potential RACT in the February 1999 FIP proposal and the January 2000 supplemental proposal: steam injection with high energy wet scrubbers, spray tower with hydrosonic scrubbers, replacement of the existing scrubbing system with a baghouse, lime injection, and installation of waste evaporators. Water injection, coupled with Astaris-Idaho's existing primary scrubbers and John Zink hydrosonic scrubbers, is similar in theory to a spray tower followed by hydrosonic scrubbers and, consequently, would be expected to achieve comparable emission reductions. Although replacement of the existing scrubbing control system with a baghouse could potentially achieve a lower emission rate for filterable PM-10 than water injection or a spray tower, it is undesirable for several reasons. First, because polonium-210 (Po-210), a radioactive isotope released in significant quantities in the calciner emissions, would be captured in the baghouse dust and retained on the baghouse walls, hoppers, and bags, it creates potential health and safety risks for workers. 64 FR at 7332. These risks can be overcome, but doing so would add additional expense to the cost of the system. Second, baghouses are less effective for controlling condensible PM-10 emissions than other control methods unless the baghouse gas is cooled considerably. The existing test data shows that almost 50% of the total PM-10 from the calciner scrubbers consists of condensibles. Adding a cooling system to a baghouse in order to increase the capture and control of condensible PM-10 emissions would further add to the cost of the baghouse system. For these reasons, EPA continues to believe that replacement of the existing scrubbing system with a baghouse is not economically or technologically feasible and therefore does not represent RACT-level control for this source. The other control

options considered by EPA are expected to achieve lower or similar emission reductions, often at a higher cost, than water injection or a spray tower. Therefore, EPA believes that modification of the existing calciner scrubbers by installation of a spray tower or through the similar process of water injection represents RACT-level control for this source. The source test data from the Astaris-Idaho pilot projects show that dry lime injection can achieve comparable emission reductions and would therefore also constitute RACT-level controls.

The Tribes, the State of Idaho, and several other commenters stated that the emission limit for the calciner scrubbers proposed in the FIP for Astaris-Idaho was less stringent than the emission limit for the calciners at a Monsanto facility in Soda Springs, Idaho, the only other operating elemental phosphorous facility in the United States. EPA disagrees. As an initial matter, there are important differences between the emission limit for the calciners at Astaris-Idaho's facility and the Monsanto facility that prevent a direct comparison between the emission limits. At Astaris-Idaho, the limit is a mass concentration limit (gr/dscf), along with a limit on the volume flow rate, and it applies only to the calciner stack emissions. The State of Idaho's permit limit for the Monsanto facility combines emissions from four calciner scrubber stacks and the calciner cooler stacks. Also, the permit limits emissions from the calcining process based on production rate using a mathematical equation: the higher the production rate, the higher the emission limitation, which is expressed in pounds per hour. In addition, the State limit for the Monsanto facility only applies to filterable particulates. There is no limit on condensible PM-10 emissions from the Monsanto facility, and EPA is not aware of any source test data available on condensible PM-10 emissions from the Monsanto facility. A review of the most recent source test results from the calciners at the Monsanto facility conducted during the 1998, however, shows that the emission limit established by EPA in the FIP for filterable PM-10 emissions from the calciner scrubbers at Astaris-Idaho will result in emissions that are lower than the current actual filterable PM-10 emissions from the calciner scrubbers at the Monsanto facility. The 1998 source tests showed that actual filterable emissions from the calciners at the Monsanto facility ranged from 0.006 to 0.017 gr/dscf based on Method 5 (filterable particulate only) for each

calciner scrubber stack. Three of the four stacks had filterable particulate emission rates at, or above, 0.010 gr/dscf. Thus, only one of the calciner stacks at Monsanto had emissions lower than the emission limit of 0.008 gr/dscf that will now apply to the calciners at the Astaris-Idaho facility.

With respect to the control efficiency requirement, EPA agrees, based on further review of the information provided by Astaris-Idaho, that requiring Astaris-Idaho to demonstrate a control efficiency of 90% under low inlet loadings is not reasonable. After reviewing the available source test data, EPA believes that, after the improvements to the scrubbing system, the facility should be able to demonstrate a control efficiency of 90% at inlet loadings of 0.150 gr/dscf or above. With an emission limit of 0.0180 for all PM-10, when inlet PM-10 concentrations are at 0.180 gr/dscf or above, the control efficiency must be at least 90% in order to be in compliance with the 0.0180 gr/dscf limit for all PM-10. Thus, only when inlet loadings are at or above 0.150 gr/dscf but below 0.180 gr/dscf would the control efficiency requirement potentially be the limiting factor. Given the logistical difficulties associated with measuring inlet and outlet loadings at each of eight different stacks and the narrow range where the control efficiency requirement would be the limiting factor for emissions, EPA is requiring a one time performance test for this control efficiency requirement. EPA believes the other monitoring requirements for the calciner scrubbers, coupled with the grain loading standards, should be adequate to ensure ongoing compliance with the control efficiency requirement. EPA could also require additional source testing for the control efficiency requirement through Astaris-Idaho's Title V permit or under section 114 of the Clean Air Act.

The Tribes commented that during source testing of the calciners, Tribal Air Quality Staff observed fugitive emissions that were not captured by the exhaust hoods, especially during windy conditions, and asked EPA to assess this problem in the FIP. EPA staff also recently observed such fugitive emissions from the calciners during source testing in connection with the radionuclides NESHAP. EPA has therefore added to Tables 1 and 2, a source 9b, "calciner traveling grate—fugitive emissions," and has redesignated the calciner scrubbers as source 9a. Consistent with the approach for establishing emission limits for fugitive emissions escaping from other control devices, EPA has established an

opacity limit for this source of 10%, with a corrective action level of 5%. EPA will also work with the Tribes and Astaris-Idaho to develop a method for estimating emissions from this source through source testing or other means.

#### H. Emission Limits for Calciner Cooler Vents

Emissions from the calciner cooler vents are not currently controlled by a baghouse, scrubber, or other add-on control technology. In the February 1999 FIP proposal, EPA stated that no additional control constituted RACT-level controls for the calciner cooler vents. 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, which would essentially operate as a limit on the production of nodules. In response to the February 1999 FIP proposal, Astaris-Idaho submitted source test data showing emissions from the calciner cooler vents were much higher than previously understood, both because the previous emission rate had included only filterable PM-10 and because the assumed ratio of PM-10 to total suspended particulate fraction had been underestimated. 65 FR at 4471-4472. Because the gas stream in the calciner coolers is above ambient temperatures, some condensible PM-10 emissions would be expected and in fact were documented through source testing. Based on the more recent source test data, filterable PM-10 emissions are almost 50% greater than in the emission inventory relied on in the February 1999 FIP proposal. When condensible PM-10 emissions are included, the emission estimate is again increased by approximately 100%. In the January 2000 supplemental proposal, EPA proposed to increase the emission limit for the calciner cooler vents from 2.0 lbs/hr for each stack (filterable and condensible PM-10) to 4.4 lbs/hr for each stack (for filterable PM-10 only). EPA did not revisit the RACT analysis for this source.

In commenting on the January 2000 supplemental proposal, the Tribes, the State, and members of the public expressed strong disagreement with EPA's proposal to increase the emission limit for this source and to exclude consideration of condensible emissions in establishing the emission limit without first conducting another RACT analysis in light of the revised emission information from Astaris-Idaho. These commenters believe that the significant increase in the emissions estimate for this source calls for a lower emission limit for this source, rather than a higher

emission limit, as proposed by EPA. By contrast, Astaris-Idaho commented that the emission limit should be further increased to 6.0 pounds/hour (lb/hr) because one run from the source tests on one of the four calciner cooler vents exceeded 4.4 lb/hr.

EPA is rejecting Astaris-Idaho's request that the emission limit for the calciner cooler vents be further increased to 6.0 lb/hr. In its earlier comments on the February 1999 FIP proposal, Astaris-Idaho requested a limit of 4.0 lb/hr for the calciner cooler vents. EPA proposed a limit of 4.4 lb/hr in the January 2000 supplemental proposal to provide for a margin of error. Astaris-Idaho has not submitted any additional test data to justify a further increase, nor has it explained in any detail why it now believes it needs the additional increase in the emission limit. The source test results show that only two of the 12 source test runs were above the 4.4 lb/hr limit proposed by EPA and the average of the three runs for each of the four calciner cooler vents was less than 4.10 lb/hr. EPA believes that the source test data provides sufficient evidence that Astaris-Idaho can comply with an emission limit of 4.40 lb/hr for each of the calciner cooler vents.

In response to the comments submitted by the Tribes, the State, and members of the public, EPA has reconsidered its previous RACT analysis for the calciner cooler vents in light of the higher emissions estimate for this source, including consideration of condensible particulates. A preliminary review indicates that the cost effectiveness of PM-10 removal for the calciner cooler vents would be at the very least more than \$10,000 per ton, with some technologies ranging as high as \$60,000 per ton of PM-10. In addition, there are questions regarding which control technology would be the most effective in reducing PM-10 emissions because the nature and extent of condensible PM-10 emissions from the calciner cooler vents is not well understood. A baghouse would have a high removal efficiency for filterable PM-10 but would have little impact in reducing condensible PM-10 emissions. A scrubber would be more efficient than a baghouse in controlling condensible PM-10 emissions, but would be less effective in controlling filterable PM-10 emissions. EPA plans to further investigate the nature and extent of PM-10 emissions from the calciner cooler vents over the next several months through additional source testing and filter analysis, and to propose a reduced emission limit based on additional controls to serve as a contingency

measure. Until that time, a limit of 4.4 pounds per hour for filterable PM-10 should ensure that emissions from the calciner cooler vents do not increase above existing levels.

#### I. Emission Limits for Furnace Building

In the February 1999 FIP proposal, EPA determined that furnace building Medusa-Andersen scrubber stacks (sources 18d, 18e, 18f, and 18g) are RACT-level controls. See Technical Support Document, pp. 102-103. EPA also determined that additional controls, including slag lading and improvements to the control and capture of emissions on the burden level of the furnace building were needed. See 64 FR at 7334-7335. EPA proposed an opacity limit of 10%, with a corrective action level of 5%, except that fugitive emissions from the furnace building are subject to an opacity limit of 20% and a corrective action level of 10% until April 1, 2002, when the upgrades to the burden level of the furnace building must be completed. See 65 FR at 4489-4493 (Tables 1 and 2, sources 18a to 18g). The Tribes commented that they do not believe Astaris-Idaho will be able to comply with the opacity limits in the FIP for the furnace building and that they have frequently observed opacity levels from the furnace building sources in excess of the proposed opacity limits. The Tribes therefore state that the furnace building sources do not employ RACT and that additional controls, such as enclosure of the furnace building and ducting the air mass to a control device, should be required and are needed to meet the opacity limits.

The focus of the Tribes' comments appears to center on their belief Astaris-Idaho cannot comply with the opacity limits for the furnace building because it has not done so in the past. As an initial matter, EPA continues to believe that the Medusa-Andersen scrubbers represent RACT for point source emissions from the furnace building. These scrubbers are the most effective control technology known to EPA at this time for water soluble phosphorus compounds. As discussed in the TSD for the February 1999 FIP proposal, although adding low energy scrubbers to the existing Medusa-Andersen scrubbing system would result in additional emissions reductions, EPA believes that such a requirement would go beyond RACT in light of the cost of these additional controls when compared to anticipated additional emission reductions. See TSD, pp. 102-103. EPA also believes that the current control equipment, when properly operated and maintained, can achieve

the opacity limits in the FIP on a continuous basis. During the three visible emissions surveys conducted by the Tribes from 1995 to 1999, the highest reported six-minute average was 1.25%, with most individual readings at zero percent opacity, well below the opacity limit of 10% and the corrective action level of 5% for the furnace building scrubbers.

The furnace building itself is subject to an opacity limit of 20% until April 1, 2002, and thereafter subject to an opacity limit of 10%. Complying with the 20% opacity limit will necessitate implementation of stringent operations and maintenance procedures and good housekeeping procedures by Astaris-Idaho until the upgrades to the furnace building are completed. Astaris-Idaho has not contested application of a 20% opacity limit to this source and EPA fully expects that the facility will be able to achieve it. Failure to do so would put the facility in violation of the FIP and subject to penalties and injunctive relief. If the violations continue, such injunctive action could include expedited imposition of all actions necessary to comply with the emission limits, including the early installation of additional controls on the furnace building.

EPA has carefully evaluated the feasibility of enclosing the furnace building and ducting the emissions to a control device. EPA has concluded that, in light of the nature and amount of emissions from the furnace building and safety issues relating to complete enclosure of the building, implementation of this control option would do go beyond what is considered reasonable and would therefore not constitute RACT. EPA believes that Astaris-Idaho should be able to comply with the opacity limits in the FIP by completing implementation of hot pour slag lading on all four furnaces, completing the upgrades to the upper level of the furnace building, closing doors and other openings on the side of the furnace building during windy conditions, and if necessary, constructing a minimum additional building enclosure to reduce cross drafts. A copy of the analysis of the feasibility of additional controls for the furnace building is in the docket. See also 64 FR at 7323-7324.

#### *J. Emission Limits for Excess CO Burner*

The elevated secondary condenser flare and CO ground flare (excess CO flares) are the largest emitters of PM-10 at the Astaris-Idaho facility. At the time of the February 1999 FIP proposal, EPA believed that these sources emitted approximately 3109 lb/day, accounting

for almost one half of all PM-10 emissions at the Astaris-Idaho facility. EPA determined that replacing the flares with a combustion chamber to burn the phosphorus in the excess CO gas stream and ducting exhaust gasses to a scrubber to remove phosphorus pentoxide would constitute effective RACT-level controls for this source (this control option has been referred to as an excess CO burner). See 64 FR at 7332-7333. Indeed, it is a very novel control option for controlling the excess CO flare gas. EPA also believes it is technologically and economically feasible because Astaris-Idaho has already committed to installing the excess CO burner as part of the RCRA Consent Decree and meeting a control efficiency of 95%. The February 1999 FIP proposal proposed an emission limit of 6.5 lb/hr and an opacity limit of 5%, commencing January 1, 2001. The emission limit was derived by assuming a 95% reduction in existing emissions from the flares. The February FIP proposal also proposed interim requirements on the flares to reduce emissions attributable to "mini-flashes" until the excess CO burner is in place. *Id.*

During the summer of 1999, Astaris-Idaho built, operated, and tested a pilot excess CO burner demonstration project. This project is approximately 1/80th in scale of the excess CO burner Astaris-Idaho intends to build to satisfy its obligations under the RCRA Consent Decree. Operation and testing of the excess CO burner pilot project over the summer of 1999 revealed that emissions from the excess CO flares were much higher than previously believed. This was the first time that emissions from the flares had been estimated through actual source testing and that condensible PM-10 emissions had been included in the estimate. Based on this source test data, EPA concluded that the flares emitted approximately 10,543 lb/day of PM-10 under reasonable worst case conditions, thus accounting for more than two-thirds of all PM-10 emissions from the Astaris-Idaho facility. See 65 FR at 4472-4474. Based on this revised emissions information, EPA proposed in the January 2000 supplemental proposal to increase the emission limit from for the excess CO burner to 24 lb/hr and to add a requirement that the excess CO burner meet a control efficiency of 95% under all operating conditions. The pounds per hour limit was again based on a 95% reduction in emissions from current levels from the flares. Consistent with the opacity limits for other sources and numerous opacity readings on the pilot plant, EPA proposed an opacity

limit of 10% with a corrective action level of 5%. See 65 FR at 4472-4477. The effective date of these limits, including the interim requirements on the flares to limit mini-flashes, were not changed by the January 2000 supplemental proposal.

The Tribes and citizens raised several concerns with EPA's proposal for the flares and excess CO burner. First, due to the continued high emissions from the flares (more than 10,000 pounds per day under reasonable worst case conditions), these commenters requested that EPA propose an additional interim requirement that Astaris-Idaho curtail furnace use (i.e., curtail production) when use of one of the calciners must be shut down for maintenance or other reasons. Second, the commenters questioned the basis and reliability of the increase in the emissions estimate from this source and the resulting increase in the emission limit by EPA. The commenters argued that alternative control technology that can achieve the originally proposed limit of 6.5 lb/hr should be considered and required. Astaris-Idaho commented that it was not technologically feasible to achieve a control efficiency of 95% under low inlet loadings. Astaris-Idaho also requested flexibility to modify the reference test method.

EPA does not have sufficient information at this time to determine whether the commenters' proposal to curtail furnace use or to impose additional requirements before the excess CO burner is installed are technologically feasible. In support of their request, the commenters note that Astaris-Idaho earlier committed that if one of the calciners goes down, once the excess CO burner is in place, it would indeed curtail furnace operation within ten minutes so that the facility can handle the excess CO gas without further flaring. EPA does not have sufficient information at this time to determine whether this approach is feasible before the excess CO burner is constructed. Even if EPA were to establish additional interim requirements, they would not become effective until the late summer of 2000, at the earliest. The FIP requires that the excess CO burner be operational by January 1, 2001, but Astaris-Idaho has advised EPA that they intend to have the system in operation on November 1, 2000. This means that emissions from the excess CO burner will continue at current levels for only a period of approximately four months (six months if the system is not in place until January 1, 2001). During this period, EPA urges Astaris-Idaho to take all possible measures to ensure that the

flaring of excess CO gas is minimized, such as by deferring maintenance on the calciners until after the excess CO burner is operational.

With respect to the comments concerning the revisions to the emissions estimate for the excess CO flares and the resulting increase in the emission limit for the excess CO burner, EPA has reviewed the source test results and believes for a number of reasons that the information is more reliable than the previous emission estimates for the excess CO flares. First, the testing on the excess CO burner pilot project is the first actual source testing ever conducted on the excess CO flares. Previous emission estimates were derived from theoretical chemical reaction calculations and assumptions of worst case operating conditions. Second, the revised emission estimates include condensible PM-10 emissions, which would be expected from this source, whereas the previous emission estimate did not. Finally, the revised emission estimates, which indicate that emissions from the flares account for almost two-thirds of all PM-10 emissions from the Astaris-Idaho facility, is consistent with the conclusions of the Source Apportionment Study.

Based on the revised emission estimate, EPA does not believe an emission limit of 6.5 lb/hr is achievable with the excess CO burner or with any other reasonably available control technology. EPA has determined that the best control option available for the excess CO flares, one that is so novel that it has never been applied to an elemental phosphorous facility, is combustion of the CO gases and control by a scrubber. Based on the emission characteristics of the gas stream in the flares at Astaris-Idaho (including the chemical composition of the particulates and precursors), EPA further believes that the Andersen scrubber is the most effective technology available. No one has provided in their comments information regarding another control technology that would be more effective for controlling PM-10 emissions from flaring excess CO gas at the Astaris-Idaho facility. For these reasons, EPA continues to believe that an emission limit of 24 lb/hr is appropriate and represents RACT for this source.

As discussed above, Astaris-Idaho commented that requiring a 95% control efficiency under low inlet loadings (where the gas stream to the scrubber system is relatively clean) is contrary to accepted scrubber theory. Based on further review of the information provided by Astaris-Idaho, EPA agrees

that requiring Astaris-Idaho to demonstrate a control efficiency of 95% under low inlet loadings is not reasonable. Astaris-Idaho requested that the control efficiency requirement not apply to situations where inlet loadings were below 0.69 gr/dscf. The equipment supplier, Andersen 2000, Inc., guaranteed in a comment letter dated February 29, 2000, that 95% control would be achieved at or above this inlet loading. In their March 13, 2000 comments, Astaris-Idaho provided a graph that showed overall control efficiency as a function of quench inlet loadings (gr/dscf). From that graph, at inlet loadings equal to or greater than 0.4 gr/dscf, overall control efficiency is greater than 95%. At inlet loadings below 0.4 gr/dscf, overall control efficiency drops below 95%. After reviewing the available source test data, EPA believes that Astaris-Idaho should be able to demonstrate a control efficiency of 95% at inlet loadings of 0.50 gr/dscf or above. Therefore, EPA has modified the control efficiency requirement to require that the excess CO burner achieve a control efficiency of at least 95% when inlet loadings are greater than or equal to 0.50 gr/dscf.

Astaris-Idaho also commented that an alternative stack sampling test method will be required for the excess CO burner because of the nature of the particulates being sampled. The FIP includes procedures to allow modifications to reference test methods if sufficient support information is provided. See 40 CFR 49.10711(d)(5). Those procedures should accommodate Astaris-Idaho's concerns.

Another issue relating to the excess CO burner is the need for an emergency flare on the system. Astaris-Idaho has indicated that during unplanned shutdowns of the excess CO burner and scrubber system, the excess CO burner will need to be equipped with an emergency flare for safety reasons. The Tribes and other commenters have expressed concern that the use of this emergency flare be carefully controlled.

In its comments on the January 2000 supplemental proposal, Astaris-Idaho stated that it would provide notification to EPA and the Tribes regarding the emergency flare on the excess CO burner in accordance with the requirements of the final FIP for new and modified sources. The FIP requires Astaris-Idaho to notify EPA of at least 90 days prior to the construction of a new or modified source of PM-10 at the facility. Because the emergency flare on the excess CO burner is not included in Table 1, it would be considered a new source. See 40 CFR 49.10711(c)(11). If Astaris-Idaho follows the procedure in

40 CFR 49.10711(c)(11), an emergency flare on the excess CO burner would be subject to an opacity limit of 10% and must be addressed in the operations and maintenance plan for the facility. If, based on the information provided by Astaris-Idaho, EPA determines that additional requirements for the emergency flare on the excess CO burner are necessary or appropriate, EPA would promulgate additional requirements for this source as a FIP revision through notice and comment rulemaking.

Prohibiting construction or operation of the emergency flare for the excess CO burner outright would delay construction and operation of the excess CO burner and scrubber, the control technology imposed by the FIP for the largest source of particulate matter at Astaris-Idaho, because the emergency flare is needed for safe operation of the excess CO burner. If operation of the excess CO burner were delayed, the elevated secondary condenser flare and CO ground flare would continue emitting up to 10,000 lb/day of PM-10 emissions. EPA urges Astaris-Idaho to honor its commitment to provide EPA and the Tribes with the information required by 40 CFR 49.10711(c)(11) regarding the emergency flare on the excess CO burner as promptly as possible so that construction and operation of the excess CO burner is not delayed.<sup>14</sup>

#### *K. Opacity Limits*

In the February 1999 FIP proposal, we proposed limits on visible emissions from all sources except for the calciner scrubbers, dumping to the slag pile, and the existing excess CO flares. 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 to support the opacity limits proposed in the FIP. Instead, the control strategy is premised on ensuring that, for those sources in the emission inventory that we believe currently employ RACT-level controls, emissions from those sources remain at current levels. 64 FR at 7325. The emissions rates in the emission inventory were established on the assumption that the process and control equipment that affect a particular source are properly operated and maintained at all times. In turn, the opacity limits proposed by

<sup>14</sup> Failing to begin operation of the excess CO burner by January 1, 2001, would be a violation of the FIP.

EPA are intended to ensure that assumption will in fact be met.

In commenting on the February 1999 FIP proposal, Astaris-Idaho conceded that some enforceable limits on visible emissions should be required in the FIP, but contended that the proposed opacity limits are overly stringent and not supported by the record. As an alternative, Astaris-Idaho suggested that the FIP establish a facility-wide opacity limit of 20% and then build in action levels for each source below 20% that would trigger a requirement for Astaris-Idaho to commence an investigation and take corrective action. A source that exceeded the action level would not, however, be considered in violation of the opacity limit so long as emissions do not exceed the 20% opacity limit. Another commenter stated that an opacity limit of zero percent should be required for all baghouses because baghouses should have no visible emissions if they are being properly operated and maintained.

In the January 2000 supplemental proposal, EPA adopted a slightly different approach to opacity in an attempt to accommodate some of Astaris-Idaho's concerns while still achieving EPA's goal of ensuring that all control and process equipment are being properly operated and maintained. To simplify the regime for monitoring opacity, EPA proposed a limit of 10% for most sources. To further ensure that emissions from these sources are minimized at all times, EPA also proposed an opacity action level for each source. In addition, for certain open (i.e., uncaptured) fugitive dust sources, such as certain piles and roads, that could be impacted by meteorological conditions, such as high winds during dry conditions, EPA proposed an opacity limit of 20%, with a corrective action level of 10%.

EPA agrees with the one commenter that a properly operating baghouse will generally have no visible emissions. When baghouses are in the self-cleaning mode (part of the normal and needed cleaning of the baghouse), however, visible emissions are occasionally observed. EPA, therefore, did not propose a limit of zero visible emissions on baghouses. For a more detailed discussion of this proposal, please refer to the January 2000 supplemental proposal. 65 FR at 4475-4476.

In response to the January 2000 supplemental proposal, Astaris-Idaho and a few other commenters again requested a facility-wide opacity limit of 20% and action levels for each source below 20% that would trigger a requirement for Astaris-Idaho to commence an investigation and take

corrective action. Other commenters expressed a general concern with high opacity levels at the Astaris-Idaho facility, but these other commenters did not appear to take issue with the opacity limits proposed by EPA in the January 2000 supplemental proposal. EPA does not believe that a facility-wide opacity limit of 20% achieves its objective of ensuring emissions from sources employing RACT-level controls remain at current levels through proper operation and maintenance of process and control equipment. Based on the visible emission surveys of the Astaris-Idaho facility conducted in December 1995-January 1996, October-November 1998, and a recent survey conducted in September 1999, opacity levels above 20% are far above typical opacity levels for the sources at Astaris-Idaho and thus would reliably identify a source that was not being properly operated or maintained.

Based on a comment from Astaris-Idaho, EPA has made a minor revision to the opacity limit for the pressure relief vents (PRVs). EPA has added an exception to the 10% opacity limit for emissions occurring during steam cleaning and draining of the PRV drop tank. This operation and maintenance procedure occurs twice each day and Astaris-Idaho expressed concern that steam escaping the PRV during such cleaning events could be identified incorrectly as visible emissions. To account for this concern, EPA is providing an opacity limit of 20% during this operation and maintenance procedure twice each day. EPA is also requiring the facility to keep records of the date and time of this procedure, consistent with the facility's current practice.

#### *L. Excess Emissions*

In the February 1999 FIP proposal, EPA proposed two alternative approaches with respect to excess emissions due to startup, shutdown, scheduled maintenance, malfunction, or emergency. 64 FR at 7328; 64 FR 17990, 17991 (April 13, 1999). Under the first approach, the emission limitations would apply at all times and there would be no affirmative defense for excess emissions caused by such events. If emissions did exceed the proposed limits during startup, shutdown, scheduled maintenance, malfunction, or emergency, EPA would, of course, retain its enforcement discretion to forgo seeking a civil penalty for violation of the limits. Under the second alternative, EPA proposed to provide an affirmative defense to a penalty action (but not to an action for injunctive relief) provided certain conditions are satisfied. EPA

based the affirmative defense on EPA's interpretation of the CAA set forth in a guidance document EPA issued to States regarding excess emissions during startup, shutdown, scheduled maintenance, and malfunctions, and also on the "emergency defense" provision in 40 CFR 71.6(g). See Memorandum from Kathleen M. Bennett, Assistant Administrator for Air And Radiation, to the Regional Administrators, entitled "Policy Regarding Excess Emissions During Startup, Shutdown, Scheduled Maintenance, and Malfunctions" (February 15, 1983) (referred to hereafter as "1983 Excess Emissions Policy"). These two alternatives were not further discussed in the January 2000 supplemental proposal.

Although the Tribes, the State of Idaho, and members of the public expressed concerns regarding frequent events referred to by Astaris-Idaho in the past as "upsets" that the commenters believe cause exceedences of the PM-10 standards, none of the commenters opposed providing Astaris-Idaho a narrowly-tailored affirmative defense for emissions in excess of limits in the FIP so long as such a provision does not interfere with expeditious attainment and maintenance of the PM-10 NAAQS in the area. Astaris-Idaho strongly supported the affirmative defense proposed by EPA, although with several modifications. In general, Astaris-Idaho requested that the affirmative defense more closely follow EPA's 1983 Excess Emissions Policy. In particular, Astaris-Idaho objected to the provision that made the affirmative defense unavailable on any day an exceedence of the PM-10 NAAQS was recorded in the Fort Hall PM-10 nonattainment area. The Tribes also commented that EPA should more closely follow EPA's policies on excess emissions but expressed strong support for the provision objected to by Astaris-Idaho.

Since publication of the February 1999 FIP proposal, EPA issued a revised guidance document regarding excess emission events in SIPs. See Memorandum from Steven A. Herman, Assistant Administrator for Enforcement and Compliance Monitoring, and Robert Perciasepe, Assistant Administrator for Air And Radiation, to the Regional Administrators, entitled "State Implementation Plans: Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown" (September 20, 1999) (referred to hereafter as "1999 SIP Excess Emissions Policy"). That guidance document reaffirmed, clarified, and supplemented EPA's 1983 Excess Emissions Policy. Copies of the

1983 and 1999 policies are in the docket.

Based on the comments submitted to EPA, EPA believes it is appropriate to provide a narrowly drawn affirmative defense to a penalty action brought for emissions in excess of the FIP limits under certain conditions. EPA has made some minor revisions to the provisions to ensure consistency with the Clean Air Act, as interpreted in the guidance EPA has issued to States regarding the types of excess emissions provisions that States may incorporate into State Implementation Plans. For example, EPA has determined it is inappropriate to include scheduled maintenance as an event that could excuse excess emissions from a penalty action. EPA believes that maintenance is a predictable event that can be scheduled at the discretion of the operator to coincide with maintenance of production equipment or other source shutdowns. With respect to excess emissions caused by emergencies or malfunctions, EPA has clarified the proposal to ensure prompt corrective action and the minimization of excess emissions similar to that included in the provision for excess emissions in the case of startup and shutdown. EPA has continued to include the provision stating that the affirmative defense would not apply on any day on which an exceedance of the revised PM-10 NAAQS was recorded by any monitor in the Fort Hall PM-10 nonattainment area. EPA believes that an affirmative defense is appropriate only when the respective contributions of individual sources to pollutant concentrations in the ambient air are such that no single source or small group of sources has the potential to cause an exceedance of the NAAQS or PSD increments. See 1999 Excess Emissions Policy, Attachment p. 1. As discussed in the February 1999 FIP proposal, Astaris-Idaho is the primary or at least the most significant contributor to the PM-10 exceedances that have been recorded on the Tribal monitors. 64 FR at 7309. The Tribes and other commenters also stated it was important to ensure that allowing an affirmative defense must not interfere with attainment and maintenance of the PM-10 NAAQS in the area. To the extent Astaris-Idaho believes that an exceedance of the PM-10 NAAQS recorded in the Fort Hall PM-10 nonattainment area is not attributable to its facility and makes a persuasive case to that effect to EPA, EPA could exercise its enforcement discretion to forgo seeking a civil penalty for violation of the emission limit.

#### *M. Monitoring, Recordkeeping, and Reporting*

The February 1999 FIP proposal included extensive monitoring, recordkeeping, and reporting provisions for ensuring compliance with the emission limits and work practice requirements in the FIP. Astaris-Idaho requested that EPA include provisions that would provide procedural flexibility for modifying certain aspects of the FIP through a process other than a revision to the FIP. In the January 2000 supplemental proposal, EPA included several such provisions, such as a provision authorizing the Regional Administrator to extend the time period for conducting source tests for an additional 90 days for good cause, a provision authorizing the Regional Administrator to modify a reference test method, and a provision authorizing changes to monitoring, recordkeeping, and reporting provisions of the FIP through the issuance of or a significant permit modification to Astaris-Idaho's title V permit. See 65 FR at 4478-4479.

The Tribes requested that EPA require semi-annual source testing for the calciner scrubbers, the calciner cooler vents, the furnace Medusa-Andersen scrubbers, the phos-dock Andersen scrubber, and the excess CO burner, as well as continuous opacity monitors (COMs) on the furnace scrubbers, phos-dock Andersen scrubber, and excess CO burner because these sources have a larger potential to emit or a much higher probability of compliance problems. The Tribes further requested that, if a source test documents a violation of an emission limit, Astaris-Idaho should be required to conduct another test of that source within 90 days. The Tribes also requested a change in the reference test method for the furnace Medusa-Andersen scrubbers.

EPA has revised the FIP to require semi-annual source tests for the calciners and the excess CO burners because these two sources will either be completely new or have substantial changes made to existing control technology. EPA is not requiring more frequent testing of the other sources identified by the Tribes because the change in the control systems for these sources is less substantial. EPA has authority under section 114 of the Clean Air Act to require more frequent testing of these sources if needed. EPA has also revised the FIP to include a requirement that another source test be conducted within 90 days after a source test shows a violation of the emission limit for this source. In addition, EPA has revised the reference test method for the furnace scrubbers to include at least 20 minutes

of slag tapping in each of two runs and at least 20 minutes of metal tapping in the other run. EPA based this approach on the fact that tapping occurs approximately every hour, a tap lasts approximately 20 minutes, and slag tapping occurs more frequently than metal tapping. Because each source test run takes a minimum of one hour, this approach should ensure that the source tests are representative of operational conditions. EPA has not revised the FIP to require COMs because EPA does not believe that COMs can be installed on the Andersen scrubber stacks due to interference from water vapor.

#### *N. PM-10 Precursors*

Under CAA section 189(e), the control requirements applicable under SIPs to major stationary sources of PM-10 must also be applied to major stationary sources of PM-10 precursors, unless EPA determines such sources do not contribute significantly to PM-10 levels in excess of the NAAQS in the area. 57 FR at 13541. Not all particulate in the air is directly emitted in particulate form from emission sources. Particulate can also be formed in the air through complex chemical processes involving emission of gaseous pollutants called "precursor gasses" or "precursors". A precursor gas is a gas that is in the vapor state under both elevated stack temperature and at ambient temperature and cannot be measured in stack tests using either Methods 5 or 201/201A (filterable particulate) or Method 202 (condensable particulate). PM-10 precursors can include volatile organic compounds, which form secondary organic compounds; sulphur dioxide, which forms sulfate compounds; and nitrogen oxides, which form nitrate compounds. See 57 FR 13538. The particulates formed in the air from precursor gasses are generally referred to as "secondary aerosol."

In the February 1999 FIP proposal, EPA stated that it did not have sufficient information to determine whether PM-10 precursors contribute significantly to PM-10 levels in excess of the NAAQS in the Fort Hall PM-10 nonattainment area but that an analysis of the filters on the Tribal monitors (the Source Apportionment Study), which was to be completed in the summer of 1999, should provide this information. EPA also stated that it would address PM-10 precursors, as necessary or appropriate, in a subsequent rulemaking. See 64 FR at 7318, 7342. The January 2000 supplemental proposal did not directly address PM-10 precursors, although it did summarize the findings of the Source Apportionment Study.

EPA received many comments on PM-10 precursors, including comments from the Tribes and the State of Idaho. The Tribes stated that EPA should either revise the FIP to address precursors or directly address the possibility that the FIP will need to be reopened after the Source Apportionment Study was complete in order to include controls on emissions of PM-10 precursors. Two other commenters noted their expectation that EPA address PM-10 precursor emissions from the Astaris-Idaho facility if such emissions are determined to be a significant contributor to NAAQS violations in the area, and also stated that such emissions would likely need to be addressed and controlled under the new PM-2.5 standard. The comments on the January 2000 supplemental proposal revealed a heightened concern with PM-10 precursors for two apparent reasons. First, several commenters interpreted the Source Apportionment Study as finding that PM-10 precursor emissions from the Astaris-Idaho facility do contribute significantly to exceedences of the PM-10 standards on the Tribal monitors. The Tribes and Idaho are particularly concerned that phosphorus and sulfur dioxide emissions from Astaris-Idaho are PM-10 precursor emissions. Second, public concern with PM-10 precursors and air quality in general was heightened by the exceedences of the PM-10 NAAQS recorded on State monitors in and near Pocatello and on the Tribal monitors in December 1999 and January 2000 during an air stagnation event. These were the first exceedences recorded on the State monitors since January 1993. Preliminary information shows that sulfates were a significant portion of the PM-10 mass captured on the filters at the State and Tribal PM-10 monitors during the December 1999 and January 2000 exceedences.

EPA does not agree that the Source Apportionment Study supports a finding that PM-10 precursors contribute significantly to exceedences of PM-10 in the Fort Hall PM-10 nonattainment area.<sup>15</sup> In fact, the report states, "Sulfate is contributed by regional sources and by the calciner stacks, but is a minor contributor to PM-10, accounting for about 5% of the

fine mass during exceedences." See Source Apportionment Study, Executive Summary, Bullet #4. EPA also does not agree that phosphorous is a precursor to the formation of PM-10 secondary aerosol. Phosphorus in a gas stream converts to phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>), a fine particulate, prior to or immediately upon contact with the atmosphere. Phosphorus is, of course, emitted from Astaris-Idaho in significant quantities. The gases in the calciners, excess CO flares (which will be replaced by the excess CO burner), and phos dock contain significant amounts of phosphorus, which is oxidized to P<sub>2</sub>O<sub>5</sub> when it meets with the ambient air. This P<sub>2</sub>O<sub>5</sub> is collected and measured by reference test Methods 5, 201/201A and 202 as primary particulate matter, and is therefore not a precursor to PM-10 secondary aerosol. This P<sub>2</sub>O<sub>5</sub> is included in the emission inventory and will be controlled by the requirements of in this FIP. For example, the largest sources of phosphorus and phosphorus compounds are the elevated secondary condenser flare and CO ground flare. These will be replaced by the excess CO burner and controlled by the Andersen scrubbing system, which will be required to remove 95% of the inlet particulate loadings under most operating conditions and meet an emission limit of 24 lbs/hr. EPA is not aware of any other alternative control technology that is more effective in controlling phosphorous and phosphorus compounds from the excess CO flares and believes that this technology constitutes RACT-level control and likely even BACT-level control. Another large source of phosphorus and phosphorus compounds are the calciners. Again, this source will be required to meet RACT-level emission limits of 0.008 gr/dscf for filterable PM-10 and 0.018 gr/dscf for all PM-10. In any event, these phosphorous gases will be regulated by the FIP because the FIP requires the implementation of RACT on all sources at the Astaris-Idaho facility and the phosphorus sources that contribute to exceedences of the PM-10 NAAQS are included in the sources regulated by the FIP.

As stated above, preliminary information from Idaho and the Tribes indicates that a significant portion of the filter loadings during the days when the level of the 24-hour PM-10 standard was exceeded in December 1999 and January 2000 was determined to be sulfates. This could suggest that PM-10 precursors do contribute significantly to PM-10 levels which exceed the PM-10

NAAQS in the area. EPA has not yet received the results of the filter analysis recently completed for the State and Tribal monitors for the December 1999–January 2000 exceedences. Once EPA receives this information, it will work with the Tribes and the State to better understand the sources, emissions, and chemical reactions that contributed to the recent exceedences of the PM-10 NAAQS and, if the results demonstrate precursor contributions are not insignificant, will address PM-10 precursor emissions from Astaris-Idaho as necessary or appropriate in a later rulemaking.

#### *O. Implementation and Enforcement of the FIP*

Several commenters, including the Tribes and the State, expressed concern that the FIP does not contain enforcement provisions or a detailed description of EPA's plans for determining whether Astaris-Idaho is complying with the requirements of the FIP and taking enforcement action if Astaris-Idaho is out of compliance. These commenters complained that the FIP relies heavily on self-monitoring by Astaris-Idaho and argued that regular EPA unannounced inspections of the Astaris-Idaho facility, observation of source tests, and a strong enforcement presence by EPA is essential if improved air quality is to be assured. Some commenters expressed support for the Tribes' involvement in this oversight and enforcement process.

EPA agrees that a strong enforcement presence is needed to ensure that Astaris-Idaho is complying with the requirements of the FIP and that the expected air quality benefits are in fact being realized. Until the Shoshone-Bannock Tribes are authorized to manage CAA programs within the Fort Hall Indian Reservation under the provisions of the Tribal Authority Rule (TAR), 40 CFR part 49, EPA is responsible for ensuring that all sources on the Fort Hall Indian Reservation, including Astaris-Idaho, comply with the requirements of the Clean Air Act and any applicable implementing regulations. The federal Clean Air Act programs that apply within the Fort Hall Indian Reservation at this time include Prevention of Significant Deterioration, section 169 of the CAA and 40 CFR part 51.21; New Source Performance Standards, section 111 of the CAA and 40 CFR part 60; National Emission Standards for Hazardous Air Pollutants, section 112 of the CAA and 40 CFR parts 61 and 63. For the Astaris-Idaho facility, the federal requirements will also include this FIP.

<sup>15</sup> It is important to emphasize that EPA is stating only that the Source Apportionment Study alone does not support a finding that PM-10 precursors contribute significantly to exceedences of PM-10 in the Fort Hall PM-10 nonattainment area. As discussed below, an analysis of monitor filters during days of high PM-10 levels in December 1999 and January 2000 do show that, on these days, sulfates were a significant portion of the PM-10 mass.

The Tribes have expressed a desire to assist EPA in ensuring that Astaris-Idaho acts in compliance with the requirements of this FIP, and for otherwise assuring that Astaris-Idaho and other sources located within the Fort Hall Indian Reservation are in compliance with the requirements of the Clean Air Act and its implementing regulations. EPA is working with the Tribes to develop a memorandum of agreement that will set forth the roles and responsibilities of EPA and the Tribes in overseeing enforcement of the Clean Air Act and this FIP within the Fort Hall Indian Reservation. With respect to the Astaris-Idaho facility, this agreement is expected to address the following activities:

- Inspections of the Astaris-Idaho facility at least two times per year. Except in unusual circumstances due to logistical or other planning considerations, such inspections will be unannounced inspections;
- Regular monitoring of visible emissions;
- Reviews of operating reports, excess emission reports, and emission monitoring reports;
- Reviews of required operation and maintenance manuals;
- Observations of scheduled source tests and reviews of the results;
- Investigations of causes of elevated levels of particulate matter as determined by ambient monitoring;
- Investigations of public complaints regarding the Astaris-Idaho facility;
- Logging of compliance and inspection data regarding the Astaris-Idaho facility into EPA data bases.

The agreement is also expected to address oversight of the air quality-related Supplemental Environmental Projects under the RCRA Consent Decree to ensure that the projects are completed in a timely manner.

When violations are reported by Astaris-Idaho or discovered by EPA or the Tribes as a result of inspections or other reviews, EPA intends to take prompt enforcement action consistent with EPA policy, including how penalties are assessed. The Clean Air Act provides EPA with broad discretionary authority in this regard. Under section 113 of the Clean Air Act, EPA is authorized to bring enforcement actions against Astaris-Idaho for violations of the FIP. This authority includes civil and administrative penalty authority, the authority to seek injunctive relief, and the authority to pursue criminal actions. Additional authority also exists in other parts of the Act, including EPA's emergency authority under section 303 and penalty authority under section 120. EPA rules

under the Clean Air Act, such as this FIP, do not typically include separate or special enforcement provisions, but instead rely on the authority under section 113, 120, 303 and other EPA statutes. Under section 113 of the Clean Air Act, EPA has authority to collect up to \$27,500 per day for each violation of each FIP requirement. Most States' penalty authority is limited to a maximum of \$10,000 per day for each violation. See RCW 70.94.30 (Washington's civil penalty authority for air violations); Idaho Code 39-108(5) (Idaho's civil penalty authority for air violations).

Thus, the FIP does not rely on any single enforcement tool. Self-monitoring by Astaris-Idaho is a component, as indeed it is for sources subject to a SIP as well, but as discussed above, EPA also intends to play an active oversight role, along with the Shoshone-Bannock Tribes. Citizens also have a right to bring enforcement actions against Astaris-Idaho for violation of the FIP under section 304 of the Clean Air Act. In addition, the FIP includes many mechanisms that enhance the reliability of Astaris-Idaho's self-monitoring. First, the FIP requires Astaris-Idaho to install, maintain, and operate numerous monitoring devices that continuously measure and record emissions-related data. For example, all baghouses must be equipped with bag leak detectors, which will sound an alarm to signal when bag quality is deteriorating. Astaris-Idaho is also required to install monitoring devices to continuously record pressure drop and scrubbing functions. Under section 113(c)(2)(C), it is a criminal offense to falsify, tamper with, render inaccurate, or fail to install any monitoring device or method required under the Clean Air Act. Second, in some instances the FIP requires more than one monitoring method to ensure compliance with a single requirement. Finally, all reports and records required to be submitted to EPA and the Tribes must be certified by a responsible official as to their truth, accuracy, and completeness. Again, Astaris-Idaho would be subject to criminal liability for falsifying these records or reports.

#### *P. Transportation Conformity*

One commenter on the January 2000 supplemental proposal, Bannock Planning Organization (BPO), although favorably acknowledging EPA's efforts to regulate Astaris-Idaho and the emission reductions expected to be achieved through the FIP, expressed concern that the FIP did not adequately address transportation conformity. The commenter stated that, as the designated

metropolitan planning organization (MPO) for the area, it is required to ensure that transportation projects conform with air quality plans. Without a mobile emissions budget in the FIP, BPO stated, they would not be able to make a conformity determination for the Fort Hall PM-10 nonattainment area and absent such a determination the area would be unable to complete any transportation projects. BPO requested that EPA either formally determine that transportation conformity requirements are inapplicable for the Fort Hall PM-10 nonattainment area, or, alternatively, assure BPO that a FIP which includes a mobile source emissions budget covering the entire nonattainment area would be adopted by the Agency by December 2002.

EPA is confused by the comments submitted by BPO, since they raise issues with respect to the Fort Hall PM-10 nonattainment area and the Astaris-Idaho facility that are inconsistent with prior regulatory actions by EPA, as well as with FIP actions that have been proposed and are being finalized today. EPA revised the designation for the former Power-Bannock Counties PM-10 nonattainment area to create two separate nonattainment areas, the Portneuf Valley PM-10 nonattainment area situated on State lands and the Fort Hall PM-10 nonattainment area comprised of lands located within the exterior boundaries of the Fort Hall Indian Reservation. 63 FR 59722 (November 5, 1998). In its initial FIP proposal notice, EPA stated that it was issuing this FIP pursuant to discretionary authority granted the Agency under sections 301(a) and 301(d)(4) of the Clean Air Act. 64 FR at 73010-11. These sections of the Act authorize EPA to promulgate regulations specifying those provisions of the Act for which it is appropriate to treat Indian tribes in the same manner as states. EPA promulgated such regulations, known as the Tribal Authority Rule (TAR), on February 12, 1998. 63 FR 7254. In the TAR, EPA determined that the CAA provisions cited above constitute a delegation of federal authority to Tribes approved by EPA to administer CAA programs over all air resources within the exterior boundaries of appropriate reservations. Id. EPA further explained that, pursuant to these provisions, Congress expressed an intent to grant to eligible Tribes jurisdiction over all areas within the exterior boundaries of their reservations for the management of CAA programs. 63 FR at 7255. The TAR provides that, until Tribes have received EPA approval to manage particular CAA programs, the

Agency itself will administer the CAA in Indian country in instances where EPA determines that doing so is necessary or appropriate to protect public health and welfare. See 40 CFR 49.11(a). Moreover, under the Federal Lands Highways Program, 23 U.S.C. 202(d), 204, as amended by the Transportation Equity Act for the 21st Century (TEA-21), authorization to promulgate and implement regulations regarding planning and construction, as well as transit-related improvement projects on Indian reservation roads are entrusted to the Secretary of the Interior, through the assistance of the Bureau of Indian Affairs. Given all the above, EPA is uncertain what BPO means when it asserts that "it is the designated metropolitan planning organization for the area," if the area to which it is referring is the Fort Hall PM-10 nonattainment area that comprises the Fort Hall Indian Reservation.

In any event, the purpose of the FIP is to impose emission limits and work practice requirements that constitute RACT for particulate matter and that will, in light of this area's longstanding nonattainment problem, ensure expeditious progress towards improving air quality and attaining the PM-10 standards in order to protect the public health. Issues related to requirements on federal agencies, under section 176(c) of the Act, to demonstrate conformity of their emissions-generating activities to the air quality goals of the Fort Hall PM-10 nonattainment area, to the extent they are determined to be necessary or appropriate, will be addressed by EPA in a future rulemaking.

## V. Other Changes From the January 2000 Supplemental Proposal

Many of the changes to the FIP have been discussed above in the discussion of the major comments on the FIP and EPA's responses to those comments. Other significant changes to the FIP are discussed below.

### A. Codification

EPA originally proposed the FIP as an amendment to part 52, subpart N. That subpart codifies the provisions of the State Implementation Plan for the State of Idaho. In light of the opportunity to manage Clean Air Act programs now afforded to Tribes by the Tribal Authority Rule, EPA has determined that implementation provisions applicable in Indian Country should not be codified with State Implementation Plans, but should instead be codified separately to reflect and respect Tribal sovereignty. EPA is therefore codifying this FIP as an amendment to part 49, which is entitled "Tribal Clean Air Act

Authority." In connection with publication of this FIP, EPA is also making administrative amendments to part 49 that will create the structure for codifying this FIP, as well as future Federal Implementation Plans and Tribal Implementation Plans promulgated or approved by EPA for Indian Country. A subpart of part 49 is being created for each Region and will include the Federal and Tribal Implementation Plans for Tribes within that Region.

Implementation plans for Tribes in Region 10 will be codified in subpart M, and provisions for the Shoshone-Bannock Tribes will be codified at 40 CFR 49.10701 to 49.10730. This FIP for the Astaris-Idaho facility will be codified at 40 CFR 49.10711.

### B. Definitions

EPA has revised the definition of Astaris-Idaho or Astaris-Idaho facility to include ponds and construction activities operated by Astaris-Idaho on Section 14 of Township 6 south, Range 33 east. The omission of this section of land from the definition was inadvertent. Because the definition of fugitive emissions is used for application of the emission limits and control requirements of the FIP, and not for applicability purposes, EPA has revised the definition to clarify that the relevant inquiry is whether the emissions actually do pass through a stack, chimney, vent, or other functionally equivalent opening.

### C. Emission Limits

EPA has added a zero to the last digit of each emission limit to clarify rounding procedures. EPA has also revised the designation of three sources in Tables 1 and 2. In June 2000, Astaris-Idaho notified EPA that it had completed revamping its nodule reclaim operation as a Supplemental Environmental Project under the RCRA Consent Decree. That project eliminates the nodule fines pile (source 13) through enclosure of the pile under a dome that is controlled by a new baghouse, which Astaris-Idaho refers to as the "Nodule Reclaim Baghouse." This is the name that EPA had used to identify sources 16a and 16b in Tables 1 and 2 of the proposals. EPA has renamed sources 16a and 16b as the "nodule stockpile baghouse" and the "nodule stockpile baghouse outside capture hood—fugitive emissions." Because source 13 is now a baghouse rather than a pile, EPA has imposed the same opacity limit as for all other baghouses—10% opacity with a corrective action level of 5% opacity. EPA has also established an emission

limit for this source of 0.90 pounds per hour. EPA derived this emission rate using a grain loading standard of 0.005 gr/dscf, an emission limit commonly established by States for new baghouses, and information provided by Astaris-Idaho regarding the flow rate of the baghouse.

### D. New and Modified Sources

Astaris-Idaho objected to the 90-day advance notice provision for new and modified sources expected to cause an increase in PM-10 emissions and also to the definitions proposed by EPA to implement this provision. EPA believes a 90-day advance notice is appropriate and consistent with requirements in new source review provisions implemented in other States. EPA has added a provision, however, that would allow Astaris-Idaho to commence construction in less than 90-days upon receipt of written notification from EPA that the 90-day delay is not required. EPA intends to use this provision in appropriate situations such as where the PM-10 impacts of the project are small, less than the full 90 days is needed to review the project, and the existing opacity requirements in the FIP, as well as the operations and maintenance plan, are sufficient to address PM-10 emissions from the new or modified source. EPA also made minor changes to clarify what information must be submitted in connection with a new or modified source. EPA has clarified the definition of modification in response to a comment by Astaris-Idaho but has otherwise retained the definitions for this advance notice provision.

### E. Monitoring, Recordkeeping, and Reporting

The changes to the frequency of source testing for certain sources are discussed in section IV.M. above. EPA has revised the source testing requirements to include provisions in the New Source Performance Standards for source testing, such as the requirement for 30 days prior written notice to EPA regarding the date of a scheduled source test and providing safe and effective facilities for source testing. See 40 CFR 60.8. Other minor changes to the source testing procedures were made to better ensure consistency between the requirements of this FIP and the standard terms and conditions of Region 10's part 71, Title V permits. At the request of Astaris-Idaho, EPA made minor modifications to the monitoring requirements for the calciner scrubbers and furnace Medusa-Andersen scrubbers. At the same time, EPA added a requirement that Astaris-Idaho propose and implement a plan for

monitoring scrubber water quality for these sources because EPA believes that water quality is an important parameter for ensuring the scrubbers are being properly operated and maintained. EPA has modified the provision regarding weekly visible emission inspections to ensure that, if the first visible emissions observation detects a potential compliance problem, the visible emission observation conducted after investigation and appropriate corrective action must be conducted with the reference test method for the opacity limit. This will provide information needed to determine whether the source is in compliance with the opacity limit.

At the request of the Tribes and Astaris-Idaho, EPA has revised the FIP to require that Astaris-Idaho provide to the Tribes a contemporaneous copy of all reports, notices, and other documents submitted to EPA under the FIP. This provision will better enable the Tribes to ensure that the facility complies with the FIP and is operated in a manner that protects the health and welfare of the Tribes, their members, and their resources. Making this information more readily available to the Tribes will also facilitate the Tribes' role in working with EPA to ensure compliance with and enforcement of the FIP and will assist in building the Tribes' experience and capacity for administering Clean Air Act programs.

Finally, EPA made other minor changes to the monitoring, recordkeeping, and reporting provisions to better ensure consistency between the requirements of the FIP and the terms of the RCRA Consent Decree.

#### **VI. Effectiveness of the Control Strategy**

EPA continues to believe that the emission limits and work practice requirements in this FIP will result in attainment of the PM-10 NAAQS as expeditiously as practicable. As discussed in the February 1999 FIP proposal and the January 2000 supplemental proposal, based on measured air quality values, EPA believes that daily PM-10 emissions from the Astaris-Idaho facility must be reduced by approximately 65% in order for the Fort Hall PM-10 nonattainment area to attain the 24-hour standard and that annual PM-10 emissions must be reduced by approximately 25% in order for the area to attain the annual PM-10 standard. 65 FR at 4482; 64 FR at 7342.

Table A, below, shows current actual daily PM-10 emissions for Astaris-Idaho before implementation of the control strategy in comparison to expected

actual and allowable emissions after full implementation of the control strategy. Expected actual emissions after full implementation of the FIP requirements were determined by assuming that Astaris-Idaho would operate each source at current levels or at the FIP limit for the source, whichever is less. For example, in the case of sources controlled by baghouses, Astaris-Idaho operates those sources, based on source test information, at rates slightly below the maximum levels allowed under the FIP. Allowable emissions after implementation of the FIP were determined by assuming that Astaris-Idaho would operate each source at the maximum rate allowed by the FIP for 100% of the 24-hour and annual time periods in the case of those sources that have a mass emission limitation. For sources for which there is no mass emission limit in the FIP but for which opacity limits and other requirements were based on the installation of additional control technology (such as slag handling sources), allowable emissions are calculated by applying the control efficiency of that technology as determined from the RACT evaluation. In the case of all other sources for which there is no mass emission limitation and the FIP does not contemplate the installation of additional controls, actual and allowable emissions are assumed to remain the same before and after implementation of the control strategy. Note that allowable annual emissions for some sources can be significantly higher than actual emissions because some processes only operate for short periods throughout the year. In calculating allowable emissions however, it is assumed that the processes operate continuously all year. For example, the calciners typically operate 6500 out of 8760 hours per year, or approximately 75% of the year.

A few changes have been made to the emission inventory. Condensible emissions have been included in the emission estimate for the calciner cooler vents both before and after the implementation of the control strategy. The January 2000 supplemental proposal had included condensible PM-10 emissions for the calciner scrubbers and the excess CO burner. With the revision of the emission estimate to include condensible emissions for the calciner cooler vents, the emission inventory includes filterable and condensible PM-10 estimates for the three sources from which condensible PM-10 emissions are expected. Condensible PM-10 emissions have

been assumed to be zero for all other sources for the reasons discussed in section IV.F. above.

EPA has revised the estimate of current reasonable worst case annual emissions for the calciner scrubbers. In the January 2000 supplemental proposal, EPA assumed a grain loading of 0.029 gr/dscf to calculate current annual reasonable worst case emissions. This grain loading was the average baseline number, not a reasonable worst case number and EPA believes it may have underestimated current reasonable worst case annual emissions from the calciner scrubbers. EPA has determined a more representative grain loading for calculating current reasonable worst case annual emissions is 0.031 gr/dscf, resulting in an estimate of 252 tons per year.

The nodule fines truck loading and nodule fines stock pile emission sources have been eliminated in the case of expected actual and allowable emissions after implementation of the control strategy. As a SEP under the RCRA Consent Decree, the truck loading has been eliminated and the stockpile is now totally enclosed. A new baghouse has been constructed to control the emissions from the newly enclosed nodule fines stockpile. The emissions formerly included under nodule fines loading and the nodule fines stockpile are now included under "all other baghouses." The emission estimate for the Medusa-Andersen scrubbers on the furnace building has been revised to better reflect reasonable worst case emissions based on what EPA believes to be a more accurate estimate of how many hours the furnace scrubbers operate on a reasonable worst case day.

As indicated in Table A below, the FIP is expected to reduce 24-hour PM-10 emissions by almost 80%. As discussed above, based on air quality monitoring data, a 65% reduction in PM-10 (from 433 ug/m<sup>3</sup> to 150 ug/m<sup>3</sup>) is needed to achieve the 24-hour PM-10 NAAQS. As indicated in Table B below, the FIP is expected to reduce annual PM-10 emissions by at least 60%. As discussed above, based on air quality monitoring data, a 25% reduction in PM-10 is needed to achieve the annual PM-10 NAAQS. Thus, the FIP is expected to achieve emission reductions significantly in excess of that needed for attainment of the PM-10 standards. This cushion of over control should help alleviate concerns regarding whether the FIP will result in attainment of the PM-10 NAAQS.

TABLE A.—ATTAINMENT DEMONSTRATION 24-HOUR PM-10 STANDARD ASTARIS-IDAHO REASONABLE WORST CASE PM-10 EMISSIONS SUMMARY FULL IMPLEMENTATION OF PROPOSED CONTROL STRATEGY  
[Pounds per day]

Source name	Actual emissions before control	Actual emissions after control	Allowable emissions after control
Point sources:			
Ground & elevated CO flares *	10,543	527	576
Calciners *	2,419	1,012	1,208
All other baghouses	106	** 125	** 169
Medusa-Andersen	115	115	192
Calciner cooler vents *	679	679	679
Pressure relief vents	99	99	99
Cooling tower	96	96	96
Phos dock	34	34	34
Boilers	13	13	13
Emergency flares	12	12	12
Fugitive sources:			
Slag handling	1,045	146	146
All roads	190	190	190
All piles	163	163	163
Dry fines recycle	33	33	33
Nodule fines loading	12	0	0
Nodule fines stockpile	7	0	0
Grand total	15,566	3,244	3,610
Reduction (in percent)		79	77

\* Emission estimate includes condensible PM-10 emissions; emission limit for the calciner cooler vents does not apply to condensible PM-10.

\*\* The emissions formerly included under nodule fines loading and the nodule fines stockpile are now included under "all other baghouses."

TABLE B.—ATTAINMENT DEMONSTRATION ANNUAL PM-10 STANDARD ASTARIS-IDAHO REASONABLE WORST CASE PM-10 EMISSIONS SUMMARY FULL IMPLEMENTATION OF PROPOSED CONTROL STRATEGY  
[Tons/year]

Source name	Actual emissions before control	Actual emissions after control	Allowable emissions after control
Point sources:			
Ground & elevated CO flares *	903	45	105
Calciners *	252	144	221
All other baghouses**	12	15	31
Medusa-Andersen	18	18	35
Calciner cooler vents *	98	98	98
Pressure relief vents	1	1	1
Cooling tower	18	18	18
Phos dock	6	6	6
Boilers	2	2	2
Emergency flares	0	0	0
Fugitive sources:			
Slag handling	165	23	23
All roads	25	25	25
All piles	23	23	23
Dry fines recycle	6	6	6
Nodule fines loading	2	0	0
Nodule fines stockpile	1	0	0
Grand total	1,532	424	594
Reduction (in percent)		72	61

\* Emission estimate includes condensible PM-10 emissions; emission limit for the calciner cooler vents does not apply to condensible PM-10.

\*\* The emissions formerly included under nodule fines loading and the nodule fines stockpile are now included under "all other baghouses."

**VII. Administrative Requirements**

**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, this FIP 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. 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. sections 603, 604 and 605(b). As discussed in the February 1999 FIP proposal, because Astaris-Idaho has more than 1,000 employees, it is not a small entity under the RFA. Therefore, pursuant to 5 U.S.C. 605(b), I certify that the FIP 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, Public Law 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 FIP 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 FIP 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 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 Executive Order 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 Astaris-Idaho 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 is not economically significant and thus not subject to Executive Order 13045.

#### *F. Executive Order 13132: Federalism*

Federalism (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 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.

This FIP does not 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 and the January 2000 supplemental proposal, EPA worked closely with representatives of the Tribes during the development of the FIP proposals. See 64 FR at 7312; 65 FR at 4485. EPA has continued to work with the Shoshone-Bannock Tribes in developing this final action.

#### *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 FIP imposes obligations only on the owner or operator of Astaris-Idaho, 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 and the January 2000 supplemental proposal, EPA worked closely with representatives of the

Shoshone-Bannock Tribes during the development of the FIP proposal. See 64 FR at 7312; 65 FR at 4485. EPA has continued to work with the Tribes in developing this final action.

*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 OMB, explanations when the Agency decides not to use available and applicable voluntary standards.

The proposed reference test methods for the emissions limitations and work practice requirements in this FIP are technical standards. The test methods for the emission limitations and work practice requirements in this FIP are test methods that have been promulgated by EPA. See Methods 201, 201A, and 202, 40 CFR part 51, appendix M; Methods 1, 2, 2C, 2D, 3, 3A, 4, 5, and 22 (in part), 40 CFR part 60, appendix A. Before proposing these reference test methods, EPA conducted a search to identify potentially applicable voluntary consensus standards. EPA did not identify any potentially applicable standards that could be used in place of Methods 201, 201A, and 202, 40 CFR part 51, appendix M; or Methods 1, 3, 3A, 4, 5, and 22 (in part), 40 CFR part 60, appendix A. EPA received no comments on either proposal that identified potentially-applicable voluntary consensus standards that could be used in place of the reference test methods proposed by EPA.

*I. Submission to Congress and the Comptroller General*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Section 804, however, exempts from section 801 the following types of rules: rules of particular applicability; rules relating to agency management or personnel; and rules of agency organization, procedure,

or practice that do not substantially affect the rights or obligations of non-agency parties. 5 U.S.C. section 804(3). EPA is not required to submit a rule report regarding this action under section 801 because this is a rule of particular applicability.

*J. Petitions for Judicial Review*

Under Section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by October 23, 2000. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

**List of Subjects in 40 CFR Part 49**

Environmental protection, Air pollution control, Administrative practice and procedure, Indians, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: July 31, 2000.

**Carol Browner,**  
*Administrator.*

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

**PART 49—TRIBAL CLEAN AIR ACT AUTHORITY**

1. The authority citation for part 49 continues to read as follows:

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

**Subpart A—Tribal Authority**

**§§ 49.1 through 49.11, and 49.22 [Redesignated as Subpart A]**

**§§ 49.12 through 49.21, 49.23 through 49.50 [Added and Reserved]**

2. Part 49 is amended by designating §§ 49.1 through 49.11 and 49.22 as subpart A and adding and reserving §§ 49.12 through 49.21 and 49.23 through 49.50 to subpart A.

3. Part 49 is amended by adding Subparts B through L as follows:

**Subpart B—General Provisions**

Sec.  
49.51–49.100 [Reserved]

**Subpart C—General Federal Implementation Plan Provisions**

49.101–49.200 [Reserved]

**Subpart D—Implementation Plans for Tribes—Region I**

49.201–49.470 [Reserved]

**Subpart E—Implementation Plans for Tribes—Region II**

49.471–49.680 [Reserved]

**Subpart F—Implementation Plans for Tribes—Region III**

49.681–49.710 [Reserved]

**Subpart G—Implementation Plans for Tribes—Region IV**

49.711–49.920 [Reserved]

**Subpart H—Implementation Plans for Tribes—Region V**

49.921–49.1970 [Reserved]

**Subpart I—Implementation Plans for Tribes—Region VI**

49.1971–49.3920 [Reserved]

**Subpart J—Implementation Plans for Tribes—Region VII**

49.3921–49.4160 [Reserved]

**Subpart K—Implementation Plans for Tribes—Region VIII**

49.4161–49.5510 [Reserved]

**Subpart L—Implementation Plans for Tribes—Region IX**

49.5511–49.9860 [Reserved]

4. Part 49 is amended by adding Subpart M to read as follows:

**Subpart M—Implementation Plans for Tribes—Region X**

49.9861–49.10700 [Reserved]

Implementation Plan for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation

49.10701 Identification of plan.  
49.10702 Approval status.  
49.10703 Legal authority. [Reserved]  
49.10704 Source Surveillance. [Reserved]  
49.10705 Classification of regions for episode plans.

49.10706 Contents of implementation plan.  
49.10707 EPA-approved Tribal rules and plans. [Reserved]  
49.10708 Permits to construct.  
49.10709 Permits to operate. [Reserved]  
49.10710 Federally-promulgated regulations and federal implementation plans.  
49.10711 Federal Implementation Plan for the Astaris-Idaho LLC Facility (formerly owned by FMC Corporation) in the Fort Hall PM-10 Nonattainment Area.  
49.10712–49.17810 [Reserved]

**§§ 49.9861–49.10700 [Reserved]**

Implementation Plan for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation

**§ 49.10701 Identification of plan.**

Sections 49.10701 through 49.10730 contain the implementation plan for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation. This plan consists of a combination of Tribal rules

and measures and federal regulations and measures which apply for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation.

**§ 49.10702 Approval status.**

There are currently no EPA-approved Tribal rules or measures in the implementation plan for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation.

**§ 49.10703 Legal authority. [Reserved]**

**§ 49.10704 Source Surveillance. [Reserved]**

**§ 49.10705 Classification of regions for episode plans.**

The air quality control region which encompasses the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation is classified as follows for purposes of episode plans:

Pollutant	Classification
Carbon monoxide .....	III
Nitrogen dioxide .....	III
Ozone .....	III
Particulate matter (PM-10) .....	I
Sulfur dioxide .....	II

**§ 49.10706 Contents of implementation plan.**

The implementation plan for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation consists of the following rules, regulations, and measures:

(a) Section 49.10711. Federal Implementation Plan for the Astaris-Idaho LLC Facility (formerly owned by FMC Corporation) in the Fort Hall PM-10 Nonattainment Area.

(b) 40 CFR 52.21. Prevention of Significant Deterioration Permits

**§ 49.10707 EPA-approved Tribal rules and plans. [Reserved]**

**§ 49.10708 Permits to construct.**

Permits to construct are required for new major stationary sources and major modifications to existing major stationary sources pursuant to 40 CFR 52.21.

**§ 49.10709 Permits to operate. [Reserved]**

**§ 49.10710 Federally-promulgated regulations and federal implementation plans.**

The following regulations are incorporated and made part of the implementation plan for the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation:

(a) Section 49.10711. Federal Implementation Plan for the Astaris-Idaho LLC Facility (formerly owned by

FMC Corporation) in the Fort Hall PM-10 Nonattainment Area.

(b) 40 CFR 52.21. Prevention of Significant Deterioration Permits.

**§ 49.10711 Federal Implementation Plan for the Astaris-Idaho LLC Facility (formerly owned by FMC Corporation) in the Fort Hall PM-10 Nonattainment Area.**

(a) *Applicability.* This section applies to the owner(s) or operator(s) of the Astaris-Idaho LLC's elemental phosphorus facility located on the Fort Hall Indian Reservation in Idaho, including any new owner(s) or operator(s) in the event of a change in ownership or operation of the Astaris-Idaho facility.

(b) *Definitions.* The terms used in this section retain the meaning accorded them under the Clean Air Act, except as follows:

*Astaris-Idaho or Astaris-Idaho facility* means all of the pollutant-emitting activities that comprise the elemental phosphorus plant owned by or under the common control of Astaris-Idaho LLC in Township 6 south, Range 33 east, Sections 12, 13, and 14, and that lie within the exterior boundaries of the Fort Hall Indian Reservation, in Idaho, including, without limitation, all buildings, structures, facilities, installations, material handling areas, storage piles, roads, staging areas, parking lots, mechanical processes and related areas, and other processes and related areas. For purposes of this section, the term "Astaris-Idaho" or "Astaris-Idaho facility" shall not include pollutant emitting activities located on lands outside the exterior boundaries of the Fort Hall Indian Reservation.

*Bag leak detection guidance* means Office of Air Quality Planning and Standards (OAQPS): Fabric Filter Bag Leak Detection Guidance, EPA 454/R-98-015 (Sept. 1997).

*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.

*Certified observer* means a visual emissions observer who has been properly certified using the initial certification and periodic semi-annual recertification procedures of 40 CFR part 60, appendix A, Method 9.

*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.

*Emergency* means any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of the Astaris-Idaho facility, including acts of God, which requires immediate corrective action to restore normal operation. An emergency shall not include events caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

*Emission limitation or emission standard* means a requirement which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirements which limit the level of opacity, prescribe equipment, set fuel specifications, or prescribe operations or maintenance procedures to assure continuous emission reduction.

*EPA* means United States Environmental Protection Agency, Region 10.

*Excess emissions* means emissions of an air pollutant in excess of an emission limitation.

*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.

*Fugitive emissions* means those emissions that do not actually pass through a stack, chimney, vent, or other functionally equivalent opening.

*Malfunction* means any sudden and unavoidable breakdown of process or control equipment. A sudden breakdown which could have been avoided by better operation and maintenance is not a malfunction.

*Method 5* is the reference test method described in 40 CFR part 60, appendix A, conducted in accordance with the requirements of this section.

*Method 9* is the reference test method described in 40 CFR part 60, appendix A.

*Methods 201, 201A, and 202* are the reference test methods described in 40 CFR part 51, appendix M, conducted in accordance with the requirements of this section.

*Mini-flush* means the process of flushing elemental phosphorus, which has solidified in the secondary condenser, to the elevated secondary condenser flare or to the ground flare, and thus into the atmosphere.

*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 following shall not, by themselves, be considered modifications:

(1) Maintenance, repair, and replacement which the Regional Administrator determines to be routine for the particular source;

(2) An increase in production rate of an existing source, if that increase can be accomplished without a physical change to the source or the Astaris-Idaho facility;

(3) An increase in the hours of operation of an existing source, if that increase can be accomplished without a physical change to the source or the Astaris-Idaho facility;

(4) Use of an alternative fuel or raw material, if the existing source is capable of accommodating that alternative without a physical change to the source or the Astaris-Idaho facility; or

(5) The addition, replacement, or use of any system or device whose primary function is the reduction of an air pollutant, except when an emissions control system is removed or replaced by a system which the Regional Administrator determines to be less environmentally beneficial.

*Monitoring malfunction* means any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not monitoring malfunctions.

*O&M plan* means an operation and maintenance plan developed by Astaris-Idaho and submitted to EPA in accordance with paragraph (e)(8) of this section.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Opacity action level* means the level of opacity of emissions from a source requiring the owner or operator of the Astaris-Idaho facility to take prompt corrective action to minimize emissions, including without limitation those actions described in the approved operations and maintenance plan.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises the Astaris-Idaho facility or any portion thereof.

*Particulate matter* means any airborne finely-divided solid or liquid material with an aerodynamic diameter smaller than 100 micrometers.

*PM-10 or PM-10 emissions* means finely divided solid or liquid material,

with an aerodynamic diameter less than or equal to a nominal ten micrometers emitted to the ambient air as measured by an applicable reference method such as Method 201, 201A, or 202, of 40 CFR Part 51, appendix M, or an equivalent or alternative method specifically approved by the Regional Administrator.

*Regional Administrator* means the Regional Administrator, EPA Region 10, or a duly designated representative of the Regional Administrator.

*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 Astaris-Idaho facility.

*Shutdown* means the cessation of operation of a source for any purpose.

*Slag Pit Area* means the area of the Astaris-Idaho facility immediately bordering the south side of the furnace building extending out 100 yards.

*Source* means any building, structure, facility, installation, material handling area, storage pile, road, staging area, parking lot, mechanical process or related area, or other process or related area which emits or may emit particulate matter.

*Startup* means the setting in operation of a source for any purpose.

*Title V permit* means an operating permit issued under 40 CFR part 70 or 71.

*Tribes* means the Shoshone-Bannock Tribes.

*Visible emissions* means the emission of pollutants into the atmosphere, excluding uncombined condensed water vapor (steam), that is observable by the naked eye.

*Visual observation* means the continuous observation of a source for the presence of visible emissions for a period of ten consecutive minutes conducted in accordance with section 5 of EPA Method 22, 40 CFR part 60, appendix A, by a person who meets the training guidelines described in section 1 of Method 22.

(c) *Emission limitations and work practice requirements.* (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 Astaris-Idaho 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, of 40 CFR Part 60, appendix A, 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 Astaris-Idaho 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 Astaris-Idaho 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, 40 CFR Part 60, appendix A, is the reference test method for this requirement.

(2) For each source identified in Column II of Table 1 to this section, the owner or operator of the Astaris-Idaho facility shall comply with the emission limitations and work practice requirements for that source established in Column III of Table 1 to this section.

(3) The opacity limits for the following fugitive emission sources, which are also identified in Column II of Table 1 to this section, apply to adding of material to, taking of material from, reforming, or otherwise disturbing the pile: main shale pile (Table 1 of this section, source 2), emergency/contingency raw ore shale pile (Table 1 of this section, source 3), stacker and reclaimer (Table 1 of this section, source 4), recycle material pile (Table 1 of this section, source 8b), nodule pile (Table 1 of this section, source 11), and screened shale fines pile (Table 1 of this section, source 14).

(4)(i) Except as provided in paragraph (c)(4)(ii) of this section, beginning November 1, 2000, the following activities shall be prohibited:

(A) The discharge of molten slag from furnaces or slag runners onto the ground, pit floors (whether dressed with crushed slag or not), or other non-mobile permanent surface.

(B) The digging of solid slag in the slag pit area or the loading of slag into transport trucks in the slag pit area.

(ii) The prohibition set forth in paragraph (c)(4)(i) of this section shall

not apply to the lining of slag pots and the handling (including but not limited to loading, crushing, or digging) of cold slag for purposes of the lining of slag pots.

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

(ii) Until December 31, 2000, the owner or operator of the Astaris-Idaho facility shall take the following measures to reduce PM-10 emissions from mini-flushes and to ensure there is no bias toward conducting mini-flushes during night-time hours.

(A) Mini-flushes shall be limited to no more than 50 minutes per day (based on a monthly average) beginning January 1, 1999. Failure to meet this limit for any given calendar month will be construed as a separate violation for each day during that month that mini-flushes lasted more than 50 minutes. The monthly average for any calendar month shall be calculated by summing the duration (in actual minutes) of each mini-flush during that month and dividing by the number of days in that month. (B)(1) No mini-flush shall be conducted at any time unless one of the following operating parameters is satisfied:

(i) The flow rate of recirculated phosphy water is equal to or less than 1800 gallons per minute; or

(ii) The secondary condenser outlet temperature is equal to or greater than 36 degrees Centigrade.

(2) The prohibition set forth in paragraph (c)(5)(ii)(B)(1) of this section shall not apply during periods of malfunction or emergency, provided the owner or operator of the Astaris-Idaho facility complies with the requirements of paragraph (c)(9) of this section.

(6) At all times, including periods of startup, shutdown, malfunction, or emergency, the owner or operator of the Astaris-Idaho facility shall, to the extent practicable, maintain and operate each source of PM-10 at the Astaris-Idaho 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.

(7) Maintaining operation of a source within approved parameter ranges, promptly taking corrective action, and otherwise following the work practice, monitoring, record keeping, and reporting requirements of this section do not relieve the owner or operator of the Astaris-Idaho facility from the obligation to comply with applicable emission limitations and work practice requirements at all times.

(8) An affirmative defense to a penalty action brought for emissions in excess of an emission limitation shall be available if the excess emissions were due to startup or shutdown and all of the following conditions are met:

(i) The owner or operator of the Astaris-Idaho facility notifies EPA and the Tribes in writing of any startup or shutdown that is expected to cause excess emissions. The notification shall be given as soon as possible, but no later than 48 hours prior to the start of the startup or shutdown, unless the owner or operator demonstrates to EPA's satisfaction that a shorter advanced notice was necessary. The notice shall identify the expected date, time, and duration of the excess emissions event, the source involved in the excess emissions event, and the type of excess emissions event.

(ii) The periods of excess emissions that occurred during startup or shutdown were short and infrequent and could not have been prevented through careful planning and design.

(iii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(iv) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.

(v) At all times, the facility was operated in a manner consistent with good practice for minimizing emissions.

(vi) The frequency and duration of operation in startup or shutdown mode was minimized to the maximum extent practicable.

(vii) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality.

(viii) All emission monitoring systems were kept in operation if at all possible.

(ix) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs, or other relevant evidence.

(x) The owner or operator of the Astaris-Idaho facility submitted notice of the startup or shutdown to EPA and the Tribes within 48 hours of the time

when emission limitations were exceeded due to startup or shutdown. This notice fulfills the requirement of paragraph (g)(5) of this section. This notice must contain a description of the startup or shutdown, any steps taken to mitigate emissions, and corrective actions taken.

(xi) No exceedance of the 24-hour PM-10 National Ambient Air Quality Standard, 40 CFR 50.6(a) was recorded on any monitor located within the Fort Hall PM-10 nonattainment area that regularly reports information to the Aerometric Information Retrieval System-Air Quality Subsystem, as defined under 40 CFR 58.1(p), on any day for which the defense of startup or shutdown is asserted.

(xii) In any enforcement proceeding, the owner or operator of the Astaris-Idaho facility has the burden of proof on all requirements of this paragraph (c)(8).

(9) An affirmative defense to a penalty action brought for emissions in excess of an emission limitation shall be available if the excess emissions were due to an emergency or malfunction and all of the following conditions are met:

(i) The excess emissions were caused by a sudden, unavoidable breakdown of technology, beyond the control of the owner or operator of the Astaris-Idaho facility.

(ii) The excess emissions;

(A) Did not stem from any activity or event that could have been foreseen and avoided or planned for; and

(B) Could not have been avoided by better operation and maintenance practices.

(iii) To the maximum extent practicable the air pollution control equipment or processes were maintained and operated in a manner consistent with good practice for minimizing emissions.

(iv) Repairs were made in an expeditious fashion when the operator knew or should have known that applicable emission limitations were being exceeded. Off-shift labor and overtime must have been utilized, to the extent practicable, to ensure that such repairs were made as expeditiously as practicable.

(v) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions.

(vi) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality.

(vii) All emission monitoring systems were kept in operation if at all possible.

(viii) The owner or operator's actions in response to the excess emissions were documented by properly signed,

contemporaneous operating logs, or other relevant evidence.

(ix) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

(x) The owner or operator of the Astaris-Idaho facility submitted notice of the emergency or malfunction to EPA and the Tribes within 48 hours of the time when emission limitations were exceeded due to the emergency or malfunction. This notice fulfills the requirement of paragraph (g)(5) of this section. This notice must contain a description of the emergency or malfunction, any steps taken to mitigate emissions, and corrective actions taken.

(xi) No exceedance of the 24-hour PM-10 National Ambient Air Quality Standard, 40 CFR 50.6(a), was recorded on any monitor located within the Fort Hall PM-10 nonattainment area that regularly reports information to the Aerometric Information Retrieval System-Air Quality Subsystem, as defined under 40 CFR 58.1(p), on any day for which the defense of emergency or malfunction is asserted.

(xii) In any enforcement proceeding, the owner or operator of the Astaris-Idaho facility has the burden of proof on all requirements of this paragraph (c)(9).

(10) For each source identified in Column II of Table 2 to this section, the owner or operator of the Astaris-Idaho 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 of this section. 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 O&M 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 Astaris-Idaho facility shall notify EPA prior to the construction of a new source of PM-10 at the Astaris-Idaho facility or the modification of an existing source at the Astaris-Idaho 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, including location of the process and associated control equipment, and any modification thereto;

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

(C) The expected daily hours of operation of the source, including any seasonal variation, and an estimate of actual PM-10 emissions from the source on both a 24-hour and annual basis, considering the effect of any proposed air pollution control equipment; 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 requirements of this paragraph (c)(11) are in addition to any other requirements to obtain a permit under the Clean Air Act.

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

(A) EPA promulgates a minor new source review program for PM-10 that applies to the Astaris-Idaho facility; or

(B) The Tribes promulgate a minor new source review program for PM-10 that applies to the Astaris-Idaho facility and EPA approves the Tribes' program under of this part.

(vi) If, after receipt of the notice referred to in this paragraph (c)(11), EPA notifies Astaris-Idaho in writing that a 90 day delay in the commencement of construction or modification is not required, Astaris-Idaho may proceed with the commencement of the construction or modification as described in the notice, subject to the other requirements of this section.

(d) *Reference test methods.* (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 of 40 CFR Part 60, appendix A, are specified as the reference test methods, the testing shall

be conducted in accordance with the identified test methods and the following additional requirements:

(i) Each test shall consist of three runs, with each run a minimum of one hour.

(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.

(iii) The source shall be operated at a capacity of at least 90% of maximum during all tests unless the Regional Administrator determines in writing that other operating conditions are representative of normal operations.

(iv) Only regular operating staff may adjust the processes or emission control device parameters during a performance test or within two hours prior to the tests. Any operating adjustments made during a performance test, which are a result of consultation during the tests with source testing personnel, equipment vendors, or other consultants may render the source test invalid.

(v) For all reference tests, the sampling site and minimum number of sampling points shall be selected according to EPA Method 1 (40 CFR part 60, appendix A).

(vi) EPA Methods 2, 2C, 2D, 3, 3A, and 4 (40 CFR part 60, appendix A) shall be used, as appropriate, for determining mass emission rates.

(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) Two of the three runs from a source test of each Medusa-Andersen stack on the furnace building (Table 1 of this section, sources 18d, 18e, 18f, and 18g) shall include at least 20 minutes of slag tapping and a third run

shall include at least 20 minutes of metal tapping.

(ix) At least one of the three runs from a source test of the excess CO burner (Table 1 of this section, source 26b) shall be conducted during either a mini-flush or hot-flush that lasts for at least 30 minutes.

(3) Method 5 shall be used in place of Method 201 or 201A for the calciner scrubbers (Table 1 of this section, source 9a) and any other sources with entrained water drops. In such case, all the particulate matter measured by Method 5 must be counted as PM-10, and the testing shall be conducted in accordance with paragraph (d)(2) of this section.

(4) Method 5 may be used as an alternative to Method 201 or 201A for a particular point source, provided that all of the particulate measured by Method 5 is counted as PM-10 and the testing is conducted in accordance with paragraph (d)(2) of this section.

(5)(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 Astaris-Idaho 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)(5)(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 Astaris-Idaho facility is required to use the reference test method when conducting a performance test pursuant to paragraph (e)(1) of this section.

(6) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any requirement of this section, nothing in this section shall preclude the use, including the

exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or reference test or procedure had been performed.

(e) *Monitoring and additional work practice requirements.* (1) The owner or operator of the Astaris-Idaho facility shall conduct a performance test to measure PM-10 emissions as follows:

(i) The owner or operator of the Astaris-Idaho facility shall conduct a performance test to measure PM-10 emissions from each of the following sources on an annual basis using the specified reference test methods: east shale baghouse (Table 1 of this section, source 5a), middle shale baghouse (Table 1 of this section, source 6a), west shale baghouse (Table 1 of this section, source 7a), calciner cooler vents (Table 1 of this section, source 10), north nodule discharge baghouse (Table 1 of this section, source 12a), south nodule discharge baghouse (Table 1 of this section, source 12b), proportioning building-east nodule baghouse (Table 1 of this section, source 15a), proportioning building-west nodule baghouse (Table 1 of this section, source 15b), nodule stockpile baghouse (Table 1 of this section, source 16a), dust silo baghouse (Table 1 of this section, source 17a), furnace building-east baghouse (Table 1 of this section, source 18a), furnace building-west baghouse (Table 1 of this section, source 18b), furnace #1, #2, #3, and #4—Medusa-Andersen scrubbers (Table 1 of this section, sources 18d, 18e, 18f and 18g), coke handling baghouse (Table 1 of this section, source 20a), and phos dock-Andersen scrubber (Table 1 of this section, source 21a).

(A) The first annual test for each source shall be completed within 16 months of August 23, 2000. Subsequent annual tests shall be completed within 12 months of the most recent previous test.

(B) 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 annually if the emissions from any source test on the source are greater than or equal to 80% of the applicable emission limit.

(ii) The owner or operator of the Astaris-Idaho facility shall conduct a performance test to measure PM-10 emissions from the calciner scrubbers (Table 1 of this section, source 9a) and the excess CO burner (Table 1 of this

section, source 26b) on a semi-annual basis using the specified reference test methods.

(A) The first semi-annual performance test for each source shall be conducted within 90 days after the date on which the PM-10 emission limitations become applicable to the source. Subsequent semi-annual tests shall be completed within 6 months of the most recent previous test.

(B) If, after conducting semi-annual source tests for the calciners or the excess CO burner for two consecutive years, the emissions from that source during each of the four previous consecutive semi-annual tests are less than 80% of the applicable emission limit, then the frequency of source testing for the source may be reduced to annual testing. The frequency of source testing shall revert to semi-annually if the emissions from any source test on the source are greater than or equal to 80% of the applicable emission limit.

(iii) The owner or operator of the Astaris-Idaho facility shall conduct a performance test to determine the control efficiency of the calciner scrubbers (Table 1 of this section, source 9a) and the excess CO burner (Table 1 of this section, source 26b) using the specified reference test methods as follows:

(A) A performance test for the calciner scrubbers shall be conducted within 90 days after the date on which the PM-10 emission limitations become applicable to the source.

(B) The first performance test for the excess CO burner shall be conducted within 90 days after the date on which the PM-10 emission limitations become applicable to the source. Subsequent semi-annual tests shall be completed within 6 months of the most recent previous test.

(C) If, after conducting semi-annual source tests for the excess CO burner for two consecutive years, the emissions from that source during each of the four previous consecutive semi-annual tests are less than 80% of the mass emission limit, then the frequency of source testing for the control efficiency requirement for the excess CO burner may be reduced to annual testing. The frequency of source testing shall revert to semi-annually if the emissions from any source test on the source are greater than or equal to 80% of the mass emission limit.

(iv) If a source test indicates an exceedence of the emission limit applicable to the source, the owner or operator of the Astaris-Idaho facility shall conduct a performance test of that source within 90 days of the source test showing the exceedence. The schedule

for conducting future source tests shall not be affected by this requirement.

(v) The time period for conducting any source test may be extended by a period of up to 90 days provided that:

(A) The owner or operator of the Astaris-Idaho facility submits a written request to the Regional Administrator at least 30 days prior to the expiration of the time period for conducting the test which demonstrates the need for the extension; and

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

(vi) The owner or operator of the Astaris-Idaho 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 Astaris-Idaho facility shall not be required to resubmit a source test plan. Astaris-Idaho shall submit a new source test plan to EPA in accordance with this paragraph (e)(1) if the proposed test plan will be different from the immediately preceding source test plan that had been submitted to EPA.

(vii) The owner or operator of the Astaris-Idaho facility shall provide the Regional Administrator at least 30 days prior written notice of any performance test required under this section to afford the Regional Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of the Astaris-Idaho facility shall notify the Regional Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test or by arranging a rescheduled date with the Regional Administrator by mutual agreement.

(viii)(A) The owner or operator of the Astaris-Idaho facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to the source. This includes:

(i) Constructing any new or modified air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by the applicable test methods and procedures; and

(ii) Except with respect to the calciner scrubber stacks (Table 1 of this section, source 9a), providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platforms.

(3) Safe access to sampling platforms.

(4) Utilities for sampling and testing equipment.

(B) A modification to these requirements can be approved with respect a particular source provided that:

(1) The owner or operator of the Astaris-Idaho facility submits a written request to the Regional Administrator which demonstrates the need for the modification; and

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

(ix) During each test run and for at least two hours prior to the test and two hours after the test is completed, the owner or operator of the Astaris-Idaho facility shall monitor and record the parameters specified in paragraphs (e)(2), (e)(3), (e)(4), (e)(5), and (e)(6) of this section, as appropriate, for the source being tested, and shall report the results to EPA as part of the performance test report referred to in paragraph (g)(3)(i)(G) of this section.

(x) The owner or operator of the Astaris-Idaho facility shall conduct a 12 minute visible emission observation using Method 9 of 40 CFR Part 60, appendix A, at least twice during the performance test at an interval of no less than one hour apart, and shall report the results of this observation to EPA as part of the performance test report referred to in paragraph (g)(3)(i)(G) of this section.

(xi) Concurrently with the performance testing, the owner or operator of the Astaris-Idaho facility shall measure the flow rate (throughput to the control device) using Method 2 of 40 CFR Part 60, appendix A, for the calciner scrubbers (Table 1 of this section, source 9a) and the phos dock Andersen scrubber (Table 1 of this section, source 21a) and shall report the results to EPA as part of the performance test report referred to in paragraph (g)(3)(i)(G) of this section.

(2) The owner or operator of the Astaris-Idaho facility shall install, calibrate, maintain, and operate in accordance with the manufacturer's specifications a device to continuously measure and continuously record the pressure drop across the baghouse for each of the following sources identified in Column II of Table I: east shale baghouse (Table 1 of this section, source 5a), middle shale baghouse (Table 1 of this section, source 6a), west shale baghouse (Table 1 of this section, source 7a), north nodule discharge baghouse (Table 1 of this section, source 12a), north reclaim baghouse (Table 1 of this section, source 13), south nodule discharge baghouse (Table 1 of this section, source 12b), proportioning

building-east nodule baghouse (Table 1 of this section, source 15a), proportioning building-west nodule baghouse (Table 1 of this section, source 15b), nodule stockpile baghouse (Table 1 of this section, source 16a), dust silo baghouse (Table 1 of this section, source 17a), furnace building-east baghouse (Table 1 of this section, source 18a), furnace building-west baghouse (Table 1 of this section, source 18b), and coke handling baghouse (Table 1 of this section, source 20a).

(i) The devices shall be installed and fully operational no later than 210 days after August 23, 2000.

(ii) Upon EPA approval of the acceptable range of baghouse pressure drop for each source, as provided in paragraph (g)(1) of this section, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the approved range. Until EPA approval of the acceptable range of baghouse pressure drop for each source, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the proposed range for that source, as provided in paragraph (g)(1) of this section.

(iii) If an excursion from an approved range occurs, the owner or operator of the Astaris-Idaho facility shall immediately upon discovery, but no later than within three hours of discovery, initiate corrective action to bring source operation back within the approved range.

(iv) The owner or operator of the Astaris-Idaho facility shall complete the corrective action as expeditiously as possible.

(3) The owner or operator of the Astaris-Idaho facility shall install, calibrate, maintain, and operate in accordance with the manufacturer's specifications and the bag leak detection guidance a triboelectric monitor to continuously monitor and record the readout of the instrument response for each of the following sources identified in Column II of Table 1 to this section: east shale baghouse (Table 1 of this section, source 5a), middle shale baghouse (Table 1 of this section, source 6a), west shale baghouse (Table 1 of this section, source 7a), north nodule discharge baghouse (Table 1 of this section, source 12a), south nodule discharge baghouse (Table 1 of this section, source 12b), north reclaim baghouse (Table 1 of this section, source 13), proportioning building-east nodule baghouse (Table 1 of this section, source 15a), proportioning building-west nodule baghouse (Table 1 of this section, source 15b), nodule stockpile baghouse (Table 1 of this section, source

16a), dust silo baghouse (Table 1 of this section, source 17a), furnace building-east baghouse (Table 1 of this section, source 18a), furnace building-west baghouse (Table 1 of this section, source 18b), and coke handling baghouse (Table 1 of this section, source 20a).

(i) The triboelectric monitors shall be installed and fully operational no later than 210 days after August 23, 2000.

(ii) The owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the approved range. For the triboelectric monitors, the "approved range" shall be defined as operating the source so that an "alarm," as defined in and as determined in accordance with the bag leak detection guidance, does not occur.

(iii) If an excursion from an approved range occurs, the owner or operator of the Astaris-Idaho facility shall immediately upon discovery, but no later than within three hours of discovery, initiate corrective action to bring source operation back within the approved range.

(iv) The owner or operator of the Astaris-Idaho facility shall complete the corrective action as expeditiously as possible.

(4) The owner or operator of the Astaris-Idaho facility shall install, calibrate, maintain, and operate in accordance with the manufacturer's specifications, a device to continuously measure and continuously record the pressure drop across the scrubber and the scrubber liquor flowrate for each of the calciner scrubbers (Table 1 of this section, source 9a).

(i) The devices for the calciner scrubbers (Table 1 of this section, source 9a) shall be installed and fully operational on or before December 1, 2000.

(ii) Upon EPA approval of the acceptable range of pressure drop, scrubber liquor flow rate, and scrubber liquor pH for the calciner scrubbers, as provided in paragraph (g)(1) of this section, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the approved range. Until EPA approval of the acceptable ranges for each source, the owner or operator of the Astaris-Idaho facility shall maintain and operate the calciner scrubbers to stay within the proposed range for that source, as provided in paragraph (g)(1) of this section.

(iii) If an excursion from an approved range occurs, Astaris-Idaho shall immediately upon discovery, but no later than within three hours of discovery, initiate corrective action to bring calciner scrubber operation back within the approved range.

(iv) The owner or operator of the Astaris-Idaho facility shall complete the corrective action as expeditiously as possible.

(5) The owner or operator of the Astaris-Idaho facility shall install, calibrate, maintain, and operate in accordance with the manufacturer's specifications, a device to continuously measure and continuously record the pressure drop across the scrubber for each of the following sources identified in Column II of Table 1 to this section: furnaces #1, #2, #3 and #4—Medusa-Andersen scrubbers (Table 1 of this section, sources 18d, 18e, 18f and 18g), phos dock Andersen scrubber (Table 1 of this section, source 21a), and excess CO burner—Andersen scrubber (Table 1 of this section, source 26b).

(i) The device for furnaces #1, #2, #3 and #4—Medusa-Andersen scrubbers (Table 1 of this section, sources 18d, 18e, 18f and 18g) and the phos dock Andersen scrubber (Table 1 of this section, source 21a) shall be installed and fully operational no later than 210 days after August 23, 2000. The device for the excess CO burner (Table 1 of this section, source 26b) shall be installed and fully operational no later than January 1, 2001.

(ii) Upon EPA approval of the acceptable range of scrubber pressure drop for each source, as provided in paragraph (g)(1) of this section, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the approved range. Until EPA approval of the acceptable ranges of scrubber pressure drop for each source, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the proposed range for that source, as provided in paragraph (g)(1) of this section.

(iii) If an excursion from an approved range occurs, the owner or operator of the Astaris-Idaho facility shall immediately upon discovery, but no later than within three hours of discovery, initiate corrective action to bring source operation back within the approved range.

(iv) The owner or operator of the Astaris-Idaho facility shall complete the corrective action as expeditiously as possible.

(6) The owner or operator of the Astaris-Idaho facility shall develop and implement a written plan for monitoring the scrubber water quality (through a parameter(s) such as total dissolved solids, total suspended solids, conductivity, specific gravity, etc) on a daily basis for the following sources: calciner scrubbers (Table 1 of this section, source 9a) and furnace #1, #2,

#3 and #4—Medusa-Andersen scrubbers (Table 1 of this section, sources 18d, 18e, 18f and 18g).

(i) The plan for furnaces #1, #2, #3 and #4—Medusa-Andersen scrubbers (Table 1 of this section, sources 18d, 18e, 18f and 18g) shall be submitted to the Regional Administrator within 180 days after September 22, 2000. The plan for the calciner scrubbers (Table 1 of this section, source 9a) shall be submitted to the Regional Administrator no later than December 1, 2000.

(ii) Upon EPA approval of the acceptable parameter range for water quality for each source, as provided in paragraph (g)(1) of this section, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the approved range. Until EPA approval of the acceptable range of water quality for each source, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the proposed range for that source, as provided in paragraph (g)(1) of this section.

(iii) If an excursion from an approved range occurs, the owner or operator of the Astaris-Idaho facility shall immediately upon discovery, but no later than within three hours of discovery, initiate corrective action to bring source operation back within the approved range.

(iv) The owner or operator of the Astaris-Idaho facility shall complete the corrective action as expeditiously as possible.

(7) For each of the pressure relief vents on the furnaces (Table 1 of this section, source 24), Astaris-Idaho 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.

(i) The devices shall be installed and fully operational no later than 90 days after August 23, 2000.

(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 Astaris-Idaho facility for the pressure relief vents, as provided in paragraph (g)(1) of this section.

(iii) The release point on each pressure relief vent shall be maintained at no less than 18 inches of water.

(iv) When a pressure release through a pressure relief vent is detected, the owner or operator of the Astaris-Idaho 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.

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

(i) The purpose of the O&M plan is to ensure each source at the Astaris-Idaho facility will be operated and maintained consistent with good air pollution control practices and procedures for maximizing control efficiency and minimizing emissions at all times, including periods of startup, shutdown, emergency, and malfunction, and to establish procedures for assuring continuous compliance with the emission limitations, work practice requirements, and other requirements of this section.

(ii) The O&M plan shall be submitted to the Regional Administrator within 60 days of September 22, 2000 and shall cover all sources and requirements for which compliance is required 90 days after August 23, 2000.

(A) A revision to the O&M plan covering each source or requirement with a compliance date of more than 60 days after September 22, 2000 shall be submitted at least 60 days before the source is required to comply with the requirement.

(B) The owner or operator of the Astaris-Idaho facility shall review and, as appropriate, update the O&M plan at least annually.

(C) The Regional Administrator may require the owner or operator of the Astaris-Idaho facility to modify the plan if, at any time, the Regional Administrator determines that the O&M plan does not:

(1) Adequately ensure that each source at the Astaris-Idaho facility will be operated and maintained consistent with good air pollution control practices and procedures for maximizing control efficiency and minimizing emissions at all times;

(2) Contain adequate procedures for assuring continuous compliance with the emission limitations, work practice

requirements, and other requirements of this section;

(3) Adequately address the topics identified in this paragraph (e)(8); or

(4) Include sufficient mechanisms for ensuring that the O&M plan is being implemented.

(iii) The O&M plan shall address at least the following topics:

(A) Procedures for minimizing fugitive PM-10 emissions from material handling, storage piles, roads, staging areas, parking lots, mechanical processes, and other processes, including but not limited to:

(1) A visual inspection of all material handling, storage piles, roads, staging areas, parking lots, mechanical processes, and other processes at least once each week at a regularly scheduled time. The O&M plan shall include a list of equipment, operations, and storage piles, and what to look for at each source during this regularly scheduled inspection.

(2) A requirement to document the time, date, and results of each visual inspection, including any problems identified and any corrective actions taken.

(3) A requirement to take corrective action as soon as possible but no later than within 48 hours of identification of operations or maintenance problems identified during the visual inspection (unless a shorter time frame is specified by this rule or is warranted by the nature of the problem).

(4) Procedures for the application of dust suppressants to and the sweeping of material from storage piles, roads, staging areas, parking lots, or any open area as appropriate to maintain compliance with applicable emission limitations or work practice requirements. Such procedures shall include the specification of dust suppressants, the application rate, and application frequency, and the frequency of sweeping. Such procedures shall also include the procedures for application of latex to the main shale pile (source 2) and the emergency/contingency raw ore shale pile (source 3) after each reforming of the pile or portion of the pile.

(B) Specifications for parts or elements of control or process equipment needing replacement after some set interval prior to breakdown or malfunction.

(C) Process conditions that indicate need for repair, maintenance or cleaning of control or process equipment, such as the need to open furnace access ports or holes.

(D) Procedures for the visual inspection of all baghouses, scrubbers, and other control equipment of at least

once each week at a regularly scheduled time.

(E) Procedures for the regular maintenance of control equipment, including without limitation, procedures for the rapid identification and replacement of broken or ripped bags for all sources controlled by a baghouse, bag dimensions, bag fabric, air-to-cloth ratio, bag cleaning methods, cleaning type, bag spacing, compartment design, bag replacement schedule, and typical exhaust gas volume.

(F) Procedures that meet or exceed the manufacturer's recommendations for the inspection, maintenance, operation, and calibration of each monitoring device required by this part.

(G) Procedures for the rapid identification and repair of equipment or processes causing a malfunction or emergency and for reducing or minimizing the duration of and emissions resulting from any malfunction or emergency.

(H) Procedures for the training of staff in procedures listed in paragraph (e)(8)(i) of this section.

(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.

(9) For each source identified in Column II of Table 1 to this section, the owner or operator of the Astaris-Idaho 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 Astaris-Idaho 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 O&M 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 limit with an observation duration of at least six minutes. If opacity exceeds the opacity action level, the owner or operator of the Astaris-Idaho 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)(9), the owner or operator of the Astaris-Idaho facility may conduct a visible

emission observation of any source subject to the requirements of this paragraph (e)(9) using the reference test method for the opacity limit, 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 Astaris-Idaho 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.

(v) With respect to slag handling (Table 1 of this section, source 8a):

(A) Visible emission observations shall be made of the slag tapping area as viewed from the exterior of the furnace building and in the general area of the old slag pits;

(B) For the first three months after the effective date of the opacity limit, the owner or operator of the Astaris-Idaho facility shall conduct a visual observation of this source three days each week and shall submit the results of such observations at the end of the three month time frame. Thereafter, such observations shall be conducted weekly or as otherwise provided in this paragraph (e)(9).

(10) Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero span adjustments), the owner or operator of the Astaris-Idaho facility shall conduct all monitoring with the monitoring devices required by paragraphs (e)(2), (e)(3), (e)(4), (e)(5), (e)(6), and (e)(7) of this section in continuous operation at all times that the monitored process is in operation. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this section, including data averages and calculations, or fulfilling a minimum data availability requirement. The owner or operator of the Astaris-Idaho facility shall use data collected

during all other periods in assessing the operation of the control device and associated control system.

(11) The minimum data availability requirement for monitoring data pursuant to paragraphs (e)(2), (e)(3), (e)(4), (e)(5), (e)(6), and (e)(7) of this section is 90% on a monthly average basis. Data availability is determined by dividing the time (or number of data points) representing valid data by the time (or number of data points) that the monitored process is in operation.

(12) Nothing in this paragraph (e) shall preclude EPA from requiring any other testing or monitoring pursuant to section 114 of the Clean Air Act.

(f) *Record keeping requirements.* (1) The owner or operator of the Astaris-Idaho facility shall keep records of all monitoring required by this section that include, at a minimum, the following information:

(i) The date, place as defined in this section, and time of the sampling or measurement.

(ii) The dates the analyses were performed.

(iii) The company or entity that performed the analyses.

(iv) The analytical techniques or methods used.

(v) The results of the analyses.

(vi) The operating conditions existing at the time of the sampling or measurement.

(2)(i) The owner or operator of the Astaris-Idaho facility shall keep records of all inspections and all visible emissions observations required by this section or conducted pursuant to the O&M plan, which records shall include the following:

(A) The date, place, and time of the inspection or observation.

(B) The name and title of the person conducting the inspection or observation.

(C) In the case of a visible emission observation, the test method (Method 9 or visual observation), the relevant or specified meteorological conditions, and the results of the observation, including raw data and calculations. In the case of visible emission observations of slag handling (Table 1 of this section, source 8a), the owner or operator of the Astaris-Idaho facility shall also document whether visible emissions emanate from fuming of hot slag from pots or other points in the old slag pit area.

(D) For any corrective action required by this section or the O&M plan or taken in response to a problem identified during an inspection or visible emissions observation required by this section or the O&M plan, the time and date corrective action was initiated and

completed and the nature of corrective action taken.

(E) The reason for any monitoring not conducted on schedule.

(ii) With respect to control devices, the requirement of paragraph (f)(2)(i) of this section is satisfied by meeting the requirements of paragraph (f)(11) of this section.

(3) The owner or operator of the Astaris-Idaho facility shall continuously record the parameters specified in paragraphs (e)(2), (e)(3), (e)(4), (e)(5), and (e)(7) of this section, and shall record the parameters specified in paragraphs (e)(6) of this section on the frequency specified in the monitoring plan required under paragraph (e)(6) of this section.

(4) The owner or operator of the Astaris-Idaho facility shall keep records of all excursions from ranges approved under paragraph (e)(3) or (g)(1) of this section, including without limitation, the measured excursion, time and date of the excursion, duration of the excursion, time and date corrective action was initiated and completed, and nature of corrective action taken.

(5) The owner or operator of the Astaris-Idaho facility shall keep records of:

(i) The time, date, and duration of each pressure release from a furnace pressure relief vent (Table 1 of this section, source 24), the method of detecting the release, the results of the inspection required by paragraph (e)(7) of this section, and any actions taken to ensure resealing, including the time and date of such actions; and

(ii) The time, date, and duration of the steaming and draining of the pressure relief vent drop tank.

(6) The owner or operator of the Astaris-Idaho facility shall keep records of the time, date, and duration of each flaring of the emergency CO flares (Table 1 of this section, source 25) due to an emergency, the method of detecting the emergency, and all corrective action taken in response to the emergency.

(7) Until January 1, 2001, the owner or operator of the Astaris-Idaho facility shall keep records of the date and start/stop time of each mini-flush; the phoshy water flow rate and outlet temperature immediately preceding the start time; whether the operating parameters for conducting the mini-flush set forth in paragraph (c)(5)(ii) of this section were met; and, if the parameters were not met, whether the failure to comply with the parameters was attributable to a malfunction or emergency.

(8) The owner or operator of the Astaris-Idaho facility shall keep records of the application of dust suppressants

to all storage piles, roads, staging areas, parking lots, and any other area, including the purchase of dust suppressants, the identification of the surface covered, type of dust suppressant used, the application rate (gallons per square foot), and date of application.

(9) The owner or operator of the Astaris-Idaho facility shall keep records of the frequency of sweeping of all roads, staging areas, parking lots, and any other area, including the identification of the surface swept and date and duration of sweeping.

(10) The owner or operator of the Astaris-Idaho facility shall keep the following records with respect to the main shale pile (Table 1 of this section, source 2) and emergency/contingency raw ore shale pile (Table 1 of this section, 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.

(11) The owner or operator of the Astaris-Idaho facility shall keep a log for each control device of all inspections of and maintenance on the control device, including without limitation the following information:

(i) The date, place, and time of the inspection or maintenance activity.

(ii) The name and title of the person conducting the inspection or maintenance activity.

(iii) The condition of the control device at the time.

(iv) For any corrective action required by this section or the O&M plan or taken in response to a problem identified during an inspection required by this section or the O&M plan, the time and date corrective action was initiated and completed, and the nature of corrective action taken.

(v) A description of, reason for, and the date of all maintenance activities, including without limitation any bag replacements.

(vi) The reason any monitoring was not conducted on schedule, including a description of any monitoring malfunction, and the reason any required data was not collected.

(12) The owner or operator of the Astaris-Idaho facility shall keep the following records:

(i) The Method 9 initial certification and recertification for all individuals conducting visual emissions observations using Method 9 as required by this section.

(ii) Evidence that all individuals conducting visual observations as required by this section meet the training guidelines described in section

1 of Method 22, 40 CFR part 60, appendix A.

(13) The owner or operator of the Astaris-Idaho facility shall keep records on the type and quantity of fuel used in the boilers (Table 1 of this section, source 23), including without limitation the date of any change in the type of fuel used.

(14) The owner or operator of the Astaris-Idaho facility shall keep records of the results of the daily monitoring of the water quality of the scrubber water in the calciner scrubbers (Table 1 of this section, source 9a) and the Medusa-Andersen furnace scrubbers (Table 1 of this section, sources 18d, 18e, 18f, and 18g) as specified in the O&M plan.

(15) The owner or operator of the Astaris-Idaho facility shall keep records of the time, date, and duration of each damper vent opening for the furnace building east and west baghouses (Table 1 of this section, sources 18a and 18b), the reason for the damper vent opening, and all corrective action taken in response to the damper vent opening.

(16) The owner or operator of the Astaris-Idaho facility shall keep a copy of all reports required to be submitted to EPA under paragraph (g) of this section.

(17) All records required to be maintained by this section and records of all required monitoring data and support information shall be maintained on site at the Astaris-Idaho facility in a readily accessible location for a period of at least five years from the date of the monitoring sample, measurement, report, or record.

(i) Such records shall be made available to EPA on request.

(ii) Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation.

(g) *Reporting requirements.* (1) The owner or operator of the Astaris-Idaho facility shall submit to EPA, for each of the operating parameters required to be continuously monitored pursuant to paragraphs (e)(2), (e)(4), (e)(5), (e)(6), and (e)(7) of this section, a proposed range of operation, including a proposed averaging period, and documentation demonstrating that operating the source within the proposed range will assure compliance with applicable emission limitations and work practice requirements of this section.

(i) The proposed parameter ranges shall be submitted within 210 days of August 23, 2000, for all sources except as follows:

(A) A proposed parameter range for the pressure relief vents (Table 1 of this section, source 24) shall be submitted within 90 days of August 23, 2000.

(B) Proposed parameter ranges for the calciner scrubbers (Table 1 of this section, source 9a) and the excess CO burner (Table 1 of this section, source 26b) shall be submitted no later than the date by which the emission limitations become applicable to those sources under this section.

(ii) A parameter range for each source shall be approved by EPA through the issuance of a title V operating permit to the Astaris-Idaho facility, or as a modification thereto. Until EPA approval of the acceptable range for a parameter for a source, the owner or operator of the Astaris-Idaho facility shall maintain and operate the source to stay within the proposed range for that source.

(iii) If EPA determines at any time that the proposed or approved range does not adequately assure compliance with applicable emission limitations and work practice requirements, EPA may request additional information, request that revised parameter ranges and supporting documentation be submitted to EPA for approval, or establish alternative approved parameter ranges through the issuance of a title V operating permit to the Astaris-Idaho facility, or as a modification thereto.

(iv) This requirement to submit proposed parameter ranges is in addition to and separate from any requirement to develop parameter ranges under 40 CFR part 64 (Compliance Assurance Monitoring rule). However, monitoring for any pollutant specific source that meets the design criteria of 40 CFR 64.3 and the submittal requirements of 40 CFR 64.4 may be submitted to meet the requirements of this paragraph (g)(1).

(2) The owner or operator of Astaris-Idaho shall submit to EPA a bi-monthly report covering the preceding two calendar months (*e.g.*, January-February, March-April). Such report shall be submitted 15 days after the end of each two month period, with the last such report covering the period of November and December 2000. The report shall include the following:

(i) The date and start/stop time of each mini-flush; the phosphy water flow rate and outlet temperature immediately preceding the start time; and a "Yes/No" column indicating whether the operating parameters for conducting the mini-flush set forth in paragraph (c)(5)(ii) of this section were met.

(ii) For any "No" entry, an indication of whether the failure to comply with the parameters was attributable to a malfunction and, if so, the date and time of notification to EPA of the malfunction and a copy of the

contemporaneous record described in paragraph (c)(5)(ii) of this section.

(iii) For each month, the total mini-flush time in minutes, the number of operating days for the secondary condenser, and the average minutes per operating day.

(3) The owner or operator of the Astaris-Idaho facility shall submit to EPA a semi-annual report of all monitoring required by this section covering the six month period from January 1 through June 30 and July 1 through December 31 of each year. Such report shall be submitted 30 days after the end of such six month period.

(i) The semiannual report shall:

(A) Identify each time period (including the date, time, and duration) during which a visible emissions observation or PM-10 emissions measurement exceeded the applicable emission limitation and state what actions were taken to address the exceedence. If no action was taken, the report shall state the reason that no action was taken.

(B) Identify each time period (including the date, time, and duration) during which there was an excursion of a monitored parameter from the approved range and state what actions were taken to address the excursion. If no action was taken, the report shall state the reason that no action was taken.

(C) Identify each time period (including the date, time, and duration) during which there was an excursion above the opacity action level and state what actions were taken to address the excursion. If no action was taken, the report shall state the reason that no action was taken.

(D) Identify each time period (including date, time and duration) of each flaring of the emergency CO flares (Table 1 of this section, source 25) due to an emergency and state what actions were taken to address the emergency. If no action was taken, the report shall state the reason that no action was taken.

(E) Identify each time period (including date, time and duration) of each pressure release from a pressure relief vent (Table 1 of this section, source 24) and state what actions were taken to address the pressure release. If no action was taken, the report shall state the reason that no action was taken.

(F) Include a summary of all monitoring required under this section.

(G) Include a copy of the source test report for each performance test conducted in accordance with paragraph (e)(1) of this section.

(H) Describe the status of compliance with this section for the period covered by the semi-annual report, the methods or other means used for determining the compliance status, and whether such methods or means provide continuous or intermittent data.

(1) Such methods or other means shall include, at a minimum, the monitoring, record keeping, and reporting required by this section.

(2) If necessary, the owner or operator of Astaris-Idaho shall also identify any other material information that must be included in the report to comply with section 113(c)(2) of the Clean Air Act, which prohibits making a knowing false certification or omitting material information.

(3) The determination of compliance shall also take into account any excursions from the required parameter ranges reported pursuant to paragraph (g)(3)(i)(B) of this section.

(ii) Each semi-annual report submitted pursuant to this paragraph shall contain certification by a responsible official, as defined in 40 CFR 71.2, of truth, accuracy and completeness. Such certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

(4) The owner or operator of the Astaris-Idaho facility shall notify EPA by telephone or facsimile within 48 hours of the beginning of each flaring of the emergency CO flares (Table 1 of this section, source 25) due to an emergency.

(5)(i) For emissions that continue for more than two hours in excess of the applicable emissions limitation, the owner or operator of the Astaris-Idaho facility shall notify EPA by telephone or facsimile within 48 hours. A written report containing the following information shall be submitted to EPA within ten working days of the occurrence of the excess emissions:

(A) The identity of the stack and/or other source where excess emissions occurred.

(B) The magnitude of the excess emissions expressed in the units of the applicable emissions limitation and the operating data and calculations used in determining the magnitude of the excess emissions.

(C) The time and duration or expected duration of the excess emissions.

(D) The identity of the equipment causing the excess emissions.

(E) The nature and probable cause of such excess emissions.

(F) Any corrective action or preventative measures taken.

(G) The steps taken or being taken to limit excess emissions.

(ii) Compliance with this paragraph is required even in cases where the owner or operator of the Astaris-Idaho facility does not seek to establish an affirmative defense of startup, shutdown, malfunction, or emergency under paragraphs (c)(8) or (c)(9) of this section.

(6) The owner or operator of Astaris-Idaho shall notify EPA if it uses any fuel other than natural gas in the boilers (Table 1 of this section, source 23) within 24 hours of commencing use of such other fuel.

(7) All reports and notices submitted under this section shall be submitted to EPA at the addresses set forth below: U.S. Environmental Protection Agency, Region 10, State and Tribal Programs Unit, Re: Astaris-Idaho FIP, Office of Air Quality, OAQ 107, 1200 Sixth Avenue, Seattle, Washington 98101, (206) 553-1189, Fax: 206-553-0404.

(8) The owner or operator of the Astaris-Idaho facility shall submit a copy of each report, notice, or other document submitted to EPA under this section contemporaneously to the Shoshone-Bannock Tribes at the following address: Shoshone-Bannock Tribes, Air Quality Program, Land Use Department, P.O. Box 306, Fort Hall, Idaho, 83203, telephone (208) 478-3853; fax (208) 237-9736. The owner or operator of the Astaris-Idaho facility shall also provide contemporaneously to the Tribes notice by telephone in the event notice by telephone is provided to EPA under this section.

(h) *Title V Permit.* (1) Additional monitoring, work practice, record keeping, and reporting requirements may be included in the title V permit for the Astaris-Idaho facility to assure compliance with the requirements of this section.

(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 Astaris-Idaho facility under 40 CFR part 71 or through a significant permit modification thereto, provided that:

(A) Any alternative monitoring, record keeping, 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, record keeping, or reporting requirements are requested by the owner or operator of the Astaris-Idaho facility, Astaris-Idaho's application for its title V operating permit or significant permit modification must include:

(1) The proposed alternative monitoring, record keeping, 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 Astaris-Idaho 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 Astaris-Idaho'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 Astaris-Idaho'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 notwithstanding expiration, termination, or revocation of Astaris-Idaho's title V operating permit.

(i) *Compliance schedule.* Except as otherwise provided in this section, the owner or operator of the Astaris-Idaho facility shall comply with the requirements of this section within 90 days of August 23, 2000.

TABLE 1 TO § 49.10711

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 reclaimers	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 condensable 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 0.50 lb. PM-10/hr (excluding condensable 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 0.50 lb. PM-10/hr (excluding condensable 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.	

TABLE 1 TO § 49.10711—Continued

I Source No.	II Source description	III Emission limitations and work practice requirements	IV Reference test method
		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. <i>Exemption:</i> 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.	Method 9.
8b	b. Recycle material pile	<i>See also</i> 40 CFR 49.10711(c)(4) .... 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.	
9a	Calciner scrubbers	Effective December 1, 2000: The calciner scrubbing chain (air pollution control equipment) shall achieve an overall control efficiency <sup>1</sup> of at least 90% for PM-10 (including condensible PM-10) when inlet loadings equal or exceed 0.150 grains per dry standard cubic foot.  The arithmetic average of the emission concentration from the four stacks associated with each calciner shall not exceed 0.0080 grains per dry standard cubic foot PM-10 (excluding condensible PM-10) <sup>2</sup> .  The arithmetic average of the emission concentration from the four stacks associated with each calciner shall not exceed 0.0180 grains per dry standard cubic foot PM-10 (including condensible PM-10) <sup>2</sup> .	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).
	Calciner scrubbers	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 2.
9b	Calciner traveling grate—fugitive emissions.	b. Opacity shall not exceed 10% over a 6 minute average.	Method 9.
10	Calciner cooler vents	Emissions from any one calciner cooler vent shall not exceed 4.40 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 capture hood—fugitive emissions.	c. Opacity shall not exceed 10% over a 6 minute average.	c. Method 9.

TABLE 1 TO § 49.10711—Continued

I Source No.	II Source description	III Emission limitations and work practice requirements	IV Reference test method
13 .....	Nodule reclaim baghouse .....	a. Emissions shall not exceed 0.90 lb. PM-10/hr (excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	Methods 201/201A. Method 9.
14 .....	Screened shale fines pile adjacent to the West shale building. Proportioning building	Opacity shall not exceed 20% over a 6 minute average.	Method 9.
15a .....	a. East nodule baghouse .....	a. Emissions shall not exceed 0.60 lb. PM-10/hr (excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. Method 9.
15b .....	b. West nodule baghouse .....	b. Emissions shall not exceed 0.30 lb. PM-10/hr (excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	b Methods 201/201A . 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 stockpile baghouse .....	a. Emissions shall not exceed 0.30 lb. PM-10/hr (excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. Method 9.
16b .....	Nodule stockpile baghouse outside capture 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 0.150 lb. PM-10/hr(excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. 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 0.80 lb. PM-10/hr (excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	a. Methods 201/201A. Method 9.
18b .....	b. West baghouse .....	b. Emissions shall not exceed 0.80 lb. PM-10/hr (excluding condensable PM-10). Opacity shall not exceed 10% over a 6 minute average.	b. Methods 201/201A. 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. Effective April 1, 2002, opacity shall not exceed 10% over a 6 minute average.	c. Method 9. Method 9.
18d .....	d. Furnace #1 Medusa-Andersen ....	d, e, f, g: Emissions from any one Medusa-Andersen stack shall not exceed 2.0 lb/hr (excluding condensable PM-10).	d, e, f, g: Methods 201/201A.
18e .....	e. Furnace #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-Anderson ....		
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 1.70 lb. PM-10/hr (excluding condensable PM-10).	a. Methods 201/201A.

TABLE 1 TO § 49.10711—Continued

I Source No.	II Source description	III Emission limitations and work practice requirements	IV Reference test method
20b .....	b. Coke unloading building .....	Opacity shall not exceed 10% over a 6 minute average. b. Opacity shall not exceed 10% over a 6 minute average from any portion of the coke unloading building.	Method 9. b. Method 9.
21a .....	a. Phosphorous loading dock (phos dock), Andersen Scrubber.	Emissions shall not exceed 0.0040 grains per dry standard cubic foot PM-10 (excluding condensable PM-10). Flow rate (throughput to the control device) shall not exceed manufacturer's design specification.	a. Methods 201/201A. Method 2.
21b .....	b. Phosphorous loading dock—fugitive emissions.	b. 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 0.090 lb. PM-10/hr (excluding condensable PM-10). Opacity from any one boiler shall not exceed 10% over a 6 minute average.	Methods 201/201A. Method 9.
24 .....	Pressure relief vents .....	Opacity shall not exceed 10% over a 6 minute average except: (i) during a pressure release, as defined in 40 CFR 49.10711(e)(7)(ii), which shall be exempt from opacity limits; and. (ii) during steaming and draining of the pressure relief vent drop tank, which shall occur no more than twice each day, opacity shall not exceed 20% over a 6 minute average.	Method 9.
25 .....	Furnace CO emergency flares .....	Pressure release point shall be maintained at 18 inches of water pressure at all times. Except during an emergency flaring caused by an emergency as defined in 40 CFR 49.10711(b), opacity shall not exceed 10% over a 6 minute average. Emissions during an emergency flaring caused by an emergency are exempt from opacity limitations.	Inspection of pressure relief vent and monitoring device Method 9.
26a .....	a. Existing elevated secondary condenser flare and ground flare.	a. See 40 CFR 49.10711(c)(5).	
26b .....	b. Excess CO burner (to be built to replace the existing elevated secondary condenser flare and ground flare).	b. Effective January 1, 2001: i. The control efficiency <sup>1</sup> of the air pollution control equipment shall achieve an overall control efficiency of at least 95% for PM-10 (including condensable PM-10) when inlet loadings equal or exceed 0.50 grains per dry standard cubic foot. ii. Emissions from the excess CO burner shall not exceed 24.0 lbs PM-10/hr (including condensable PM-10). Effective January 1, 2001, opacity shall not exceed 10% over a 6 minute average.	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. Method 201/201A (Method 5 if gas stream contains condensed water vapor) and Method 202 for the outlet. Method 9.

<sup>1</sup> The control efficiency (as a percentage) of the air pollution control equipment shall be determined by the following equation:  

$$CE (\%) = 100 \left\{ 1 - \frac{[Fho + Bho]}{[Fhi + Bhi]} \right\}$$

Where CE is the 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.

The individual source tests for the inlet and outlet to the emission control system shall be conducted simultaneously or within 3 hours of each other with the same operating conditions.

<sup>2</sup>The individual source tests for the four stacks associated with each calciner shall be conducted simultaneously or within 3 hours of each other with the same operating conditions.

TABLE 2 TO § 49.10711

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.
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 limits and opacity action levels. Effective November 1, 2000, the opacity action level for this source shall be 5% over a 6 minute average. <i>Exemption:</i> Fuming of molten slag in transport pots during transport are exempt from opacity limits and opacity action levels provided the pots remain in the pot room for at least 3 minutes after the flow of molten slag to the pots has ceased.	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 limits and opacity action levels.	
9a	Calciner scrubbers	a. The calciner scrubbers shall be exempt from opacity limits and opacity action levels.	
9b	Calciner traveling grate—fugitive emissions.	b. 5% over a 6 minute average.	
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 reclaim baghouse	5% over a 6 minute average	Method 9.
14	Screened shale fines pile adjacent to the West shale building. Proportioning building.	10% over a 6 minute average	Method 9.
15a	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.

TABLE 2 TO § 49.10711—Continued

I Source No.	II Source description	III Opacity action level	IV Reference test method
15c	c. Proportioning building—fugitive emissions.	c. Any visible emissions	c. Visual observation.
16a	Nodule stockpile baghouse	a. 5% over a 6 minute average	a. Method 9.
16b	Nodule stockpile baghouse outside capture hood—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.
	Furnace building.		
18a	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.  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	Briqueting 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	Phosphorous loading dock (phos dock), Andersen Scrubber.	a. 5% over a 6 minute average	Method 9.
21b	b. Phosphorous loading dock—fugitive emissions.	b. 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 49.10711(b). Emissions during an emergency flaring caused by an emergency are exempt from opacity limits and opacity action levels.	Visual observation.
26a	a. Existing elevated secondary condenser flare and ground flare.	a. Exempt from opacity limits and opacity action levels.	
26b	b. Excess CO burner (to be built to replace the elevated secondary condenser flare and ground flare).	5% over a 6 minute average	Method 9.

§§ 49.10712-49.10730 [Reserved]

§§ 49.10731-49.17810 [Reserved]

Appendix to Subpart M—Alphabetical Listing of Tribes and Corresponding Sections

Indian tribe	Refer to the following sections in subpart M
Burns Paiute Tribe	§§ 49.9861–49.9890
Chehalis Reservation—Confederated Tribes of the	§§ 49.9891–49.9920
Coeur d’Alene Tribe	§§ 49.9921–49.9950
Colville Reservation—Confederated Tribes of the	§§ 49.9951–49.9980
Coos, Lower Umpqua and Suislaw Indians—Confederated Tribes of the	§§ 49.9981–49.10010
Coquille Tribe	§§ 49.10011–49.10040
Cow Creek Band of Umpqua Indians	§§ 49.10041–49.10100
Grand Ronde Community—Confederated Tribes of the	§§ 49.10101–49.10130
Hoh Indian Tribe	§§ 49.10131–49.10160

Indian tribe	Refer to the following sections in subpart M
Jamestown S'Klallam Tribe .....	§§ 49.10161–49.10190
Kalispel Indian Community .....	§§ 49.10191–49.10220
Klamath Indian Tribe .....	§§ 49.10221–49.10250
Kootenai Tribe .....	§§ 49.10251–49.10280
Lower Elwah Tribal Community .....	§§ 49.10281–49.10310
Lummi Tribe .....	§§ 49.10311–49.10340
Makah Indian Tribe .....	§§ 49.10341–49.10370
Muckleshoot Indian Tribe .....	§§ 49.10371–49.10400
Nez Perce Tribe .....	§§ 49.10401–49.10430
Nisqually Indian Tribe .....	§§ 49.10431–49.10460
Nooksack Indian Tribe .....	§§ 49.10461–49.10490
Port Gamble Indian Community .....	§§ 49.10491–49.10520
Puyallup Tribe .....	§§ 49.10521–49.10550
Quileute Tribe .....	§§ 49.10551–49.10580
Quinault Tribe .....	§§ 49.10581–49.10610
Samish Indian Tribe .....	§§ 49.10611–49.10640
Sauk–Suiattle Indian Tribe .....	§§ 49.10641–49.10670
Shoalwater Bay Tribe .....	§§ 49.10671–49.10700
Shoshone–Bannock Tribes of the Fort Hall Indian Reservation .....	§§ 49.10701–49.10730
Siletz Reservation—Confederated Tribes of .....	§§ 49.10731–49.10760
Skokomish Indian Tribe .....	§§ 49.10761–49.10790
Snoqualmie Indian Tribe .....	§§ 49.10791–49.10820
Spokane Tribe .....	§§ 49.10821–49.10850
Squaxin Island Tribe .....	§§ 49.10851–49.10880
Stillaquamish Tribe .....	§§ 49.10881–49.10920
Suquamish Indian Tribe .....	§§ 49.10921–49.10950
Swinomish Indians .....	§§ 49.10951–49.10980
Tulalip Tribes .....	§§ 49.10981–49.11010
Umatilla Reservation—Confederated Tribes of the .....	§§ 49.11011–49.11040
Upper Skagit Indian Tribe .....	§§ 49.11041–49.11070
Warm Springs Reservation—Confederated Tribes of the .....	§§ 49.11071–49.11100
Yakama Indian Nation—Confederated Tribes and Bands of the .....	§§ 49.11101–49.11130

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