This document is scheduled to be published in the Federal Register on 08/19/2015 and available online at **http://federalregister.gov/a/2015-19732**, and on **FDsys.gov**

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 60 and 63

[EPA–HQ–OAR–2012-0522; FRL-9931-01-OAR]

RIN 2060-AQ20

Phosphoric Acid Manufacturing and Phosphate Fertilizer Production RTR and Standards of Performance for Phosphate Processing

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review conducted for the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production source categories regulated under national emission standards for hazardous air pollutants (NESHAP). In addition, this action finalizes an 8-year review of the current new source performance standards (NSPS) for five source categories. We are also taking final action addressing Clean Air Act (CAA) provisions related to emission standards for hazardous air pollutants, review and revision of emission standards, and work practice standards. The final amendments to the Phosphoric Acid Manufacturing NESHAP include: numeric emission limits for previously unregulated mercury (Hg) and

total fluoride emissions from calciners; work practice standards for hydrogen fluoride (HF) emissions from previously unregulated gypsum dewatering stacks and cooling ponds; clarifications to the applicability and monitoring requirements to accommodate process equipment and technology changes; removal of the exemptions for startup, shutdown, and malfunction (SSM); adoption of work practice standards for periods of startup and shutdown; and revised recordkeeping and reporting requirements for periods of SSM. The final amendments to the Phosphate Fertilizer Production NESHAP include: clarifications to the applicability and monitoring requirements to accommodate process equipment and technology changes; removal of the exemptions for SSM; adoption of work practice standards for periods of startup and shutdown; and revised recordkeeping and reporting requirements for periods of SSM. The revised NESHAP for Phosphoric Acid Manufacturing facilities will mitigate future increases of Hg emissions from phosphate rock calciners by requiring pollution prevention measures. Further, based on the 8-year review of the current NSPS for these source categories, the EPA determined that no revisions to the numeric emission limits in those rules are warranted.

DATES: This final action is effective on **[insert date of publication in the Federal Register]**. The incorporation by reference of certain publications listed in the rule is approved

by the Director of the Federal Register as of **[insert date of publication in the Federal Register]**.

ADDRESSES: The Environmental Protection Agency (EPA) has established a docket for this action under Docket ID No. EPA-HQ-OAR-2012-0522. All documents in the docket are listed on the www.regulations.gov Web site. Although listed in the index, some information is not publicly available, e.g., confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through http://www.regulations.gov, or in hard copy at the EPA Docket Center, EPA WJC West Building, Room Number 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time (EST), Monday through Friday. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Dr. Tina Ndoh, Sector Policies and Programs Division (D243-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 27711; telephone number: (919)

541-2750; fax number: (919) 541-5450; and email address: Ndoh.Tina@epa.gov. For specific information regarding the risk modeling methodology, contact James Hirtz, Health and Environmental Impacts Division (C539-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-0881; fax number: (919) 541-0359; and email address: Hirtz.James@epa.gov. For information about the applicability of the NESHAP or NSPS to a particular entity, contact Scott Throwe, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, EPA WJC, 1200 Pennsylvania Ave., NW, Washington, DC 20460; telephone number: (202) 562-7013; and email address: Throwe.Scott@epa.gov.

SUPPLEMENTARY INFORMATION:

Preamble Acronyms and Abbreviations. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACI	Activated carbon injection
AEGL	Acute exposure guideline levels
AFPC	Association of Fertilizer and Phosphate Chemists
AOAC	Association of Official Analytical Chemists
BACT	Best available control technology
BSER	Best System of Emissions Reduction
BTF	Beyond the floor

CAA	Clean Air Act
CBI	Confidential Business Information
CDX	Central Data Exchange
CEDRI	Compliance and Emissions Data Reporting Interface
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CPMS	Continuous parameter monitoring system
DAP	Diammonium phosphate
DOE	Department of Energy
EPA	Environmental Protection Agency
ERT	Electronic Reporting Tool
FR	Federal Register
FTIR	Fourier transform infrared spectroscopy
GMCS	Gore Mercury Control System
GTSP	Granular triple superphosphate
HAP	Hazardous air pollutants
HF	Hydrogen fluoride
Hg	Mercury
HI	Hazard index
HQ	Hazard quotient
ICR	Information Collection Request
LAER	Lowest achievable emissions rate
lb/MMBtu	Pounds per million Btu
LOAEL	Lowest-observed-adverse-effect level
MACT	Maximum achievable control technology
MAP	Monoammonium phosphate
mg/dscm	Milligrams per dry standard cubic meter
MIBK	Methyl isobutyl ketone
MIR	Maximum individual risk
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NAS	National Academy of Sciences
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NETL	National Energy Technology Laboratory
NOAEL	No-observed-adverse-effect level
NSPS	New source performance standard
NTTAA	National Technology Transfer and Advancement Act

OAQPS	Office of Air Quality Planning and Standards
OMB	Office of Management and Budget
P_2O_5	Phosphorus pentoxide
PAC	Powdered activated carbon
PB-HAP	Hazardous air pollutants known to be persistent and bio-accumulative in the environment
PM	Particulate matter
POM	Polycyclic organic matter
PPA	Purified phosphoric acid
ppm	Parts per million
RACT	Reasonably available control technology
RBLC	RACT/BACT/LAER Clearinghouse
REL	Reference exposure level
RFA	Regulatory Flexibility Act
RTR	Residual risk and technology review
SBA	Small Business Administration
SiF4	Silicon tetrafluoride
SPA	Superphosphoric acid
SSM	Startup, shutdown, and malfunction
TOSHI	Target organ-specific hazard index
tpy	Tons per year
TRIM	Total Risk Integrated Modeling System
TRIM.FaTE	Total Risk Integrated Methodology.Fate, Transport, and Ecological Exposure model
TSP	Triple superphosphates
TTN	Technology Transfer Network
UMRA	Unfunded Mandates Reform Act
UPL	Upper prediction limit
VCS	Voluntary consensus standards
WESP	Wet electrostatic precipitator
WPPA	Wet-process phosphoric acid
WWW	World Wide Web

Background Information. On November 7, 2014 (79 FR 66511), the EPA proposed revisions to the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production national emission standards for hazardous air pollutants (NESHAP) in conjunction with the

residual risk and technology review (RTR) for those NESHAP, 40 CFR part 63, subparts AA and BB, and required 8-year review of the Standards of Performance for the Phosphate Fertilizer Industry new source performance standards (NSPS) for 40 CFR part 60, subparts T, U, V, W and X. In this action, we are finalizing decisions and revisions for the rules. We summarize some of the more significant comments we received regarding the proposed rule and provide our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in "Phosphoric Acid Manufacturing and Phosphate Fertilizer Production RTR and Standards of Performance for Phosphate Processing – Summary of Public Comments and Responses" which is available in Docket ID No. EPA-HQ-OAR-2012-0522. A "track changes" version of the regulatory language that incorporates the changes in this action for each NSPS is available in the docket. The NESHAP were replaced in their entirety to assist in readability of the language and to ensure that citations were accurate.

Organization of this Document. The information in this preamble is organized as follows:

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B. What are the final rule amendments based on the NESHAP technology review for the Phosphate Fertilizer Production source category?

C. What are the final rule amendments based on the NSPS review for the Phosphate Fertilizer Production source category?

D. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction for the Phosphate Fertilizer Production source category?

E. What other changes are we making to the NESHAP and NSPS for the Phosphate Fertilizer Production source category?

F. What are the effective and compliance dates of the standards for the Phosphate Fertilizer Production source category?

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A. Residual Risk Review for the Phosphoric Acid Manufacturing Source Category

B. Technology Review for the Phosphoric Acid Manufacturing Source Category

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K. Congressional Review Act

I. General Information

A. Does this action apply to me?

Regulated Entities. Categories and entities potentially regulated by this action are shown in Table 1 of this preamble.

Table 1. NESHAP and Industrial Source Categories Affected By This Final Action

NESHAP and Source Category	NAICS[a] Code

Phosphoric Acid Manufacturing Phosphate Fertilizer Production	325312

[a] North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this final action will also be available on the Internet through the Technology Transfer Network (TTN) Web site, a forum for information and technology exchange in various areas of air pollution control. Following signature by the EPA Administrator, the EPA will post a copy of this final action at http://www.epa.gov/ttn/atw/phosph/phosphpg.html. Following publication in the Federal Register, the EPA will post the Federal Register version and key technical documents at this same Web site.

Additional information is available on the RTR Web site at http://www.epa.gov/ttn/atw/rrisk/rtrpg.html. This information includes an overview of the RTR program, links to project Web sites for the RTR source categories and detailed emissions and other data we used as inputs to the risk assessments.

C. Judicial Review and Administrative Reconsideration

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States (U.S.) Court of Appeals for the District of Columbia Circuit by **[insert date 60 days after date of publication in the Federal Register]**. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for the EPA to reconsider the rule "[i]f the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial

review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, EPA WJC Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

1. NESHAP Authority

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of hazardous air pollutants (HAP) from stationary sources. In the first stage, we must identify categories of sources emitting one or more of the HAP listed in CAA section 112(b) and then promulgate technology-based NESHAP for those sources. "Major sources" are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy or more of any combination of HAP. For major sources, these standards are commonly referred to as maximum achievable control technology (MACT) standards and must reflect the maximum degree of emission reductions of HAP

achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). In developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems or techniques, including, but not limited to those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above.

For these MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as MACT floor requirements, and which may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT

standards, we must also consider control options that are more stringent than the floor, under CAA section 112(d)(2). We may establish standards more stringent than the floor, based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them "as necessary (taking into account developments in practices, processes, and control technologies)" no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public

health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).[1] For more information on the statutory authority for this rule, see 79 FR 66512 (November 7, 2014).

2. NSPS Authority

NSPS implement CAA section 111, which requires that each NSPS reflect the degree of emission limitation achievable through the application of the best system of emission reduction (BSER) which (taking into consideration the cost of achieving such emission reductions, any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

Existing affected facilities that are modified or reconstructed are also subject to NSPS. Under CAA section 111(a)(4), "modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted. Changes to an existing facility that do not

[1] The U.S. Court of Appeals has affirmed this approach of implementing CAA section 112(f)(2)(A): NRDC v. EPA, 529 F.3d 1077, 1083 (D.C. Cir. 2008) ("If EPA determines that the existing technology-based standards provide an 'ample margin of safety,' then the Agency is free to readopt those standards during the residual risk rulemaking.").

result in an increase in emissions are not considered modifications.

Rebuilt emission units would become subject to the NSPS under the reconstruction provisions in 40 CFR 60.15, regardless of changes in emission rate. Reconstruction means the replacement of components of an existing facility such that: (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility; and (2) it is technologically and economically feasible to meet the applicable standards (40 CFR 60.15).

Section 111(b)(1)(B) of the CAA requires the EPA to periodically review and, if appropriate, revise the standards of performance as necessary to reflect improvements in methods for reducing emissions. The EPA need not review an NSPS if the Agency determines that such review is not appropriate in light of readily available information on the efficacy of the standard. When conducting the review under CAA section 111(b)(1)(B), the EPA considers both: (1) Whether developments in technology or other factors support the conclusion that a different system of emissions reduction has become the BSER and (2) whether emissions limitations and percent reductions beyond those required by the current standards are achieved in practice.

B. What are the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production source categories and how do the NESHAP and NSPS regulate emissions from these source categories?

1. Description of Phosphoric Acid Manufacturing Source Category

In 2014, 12 facilities in the U.S. manufactured phosphoric acid. The basic step for producing phosphoric acid is acidulation of phosphate rock. Typically, sulfuric acid, phosphate rock, and water are combined together and allowed to react to produce phosphoric acid and gypsum. When phosphate rock is acidulated to manufacture wet-process phosphoric acid (WPPA), fluorine contained in the rock is released. Fluoride compounds, predominately HF, are produced as particulates and gases that are emitted to the atmosphere unless removed from the exhaust stream. Some of these same fluoride compounds also remain in the product acid and are released as air pollutants during subsequent processing of the acid. Gypsum is pumped as a slurry to ponds atop stacks of waste gypsum where the liquids separate from the slurry and are decanted for return to the process. The gypsum, which is discarded on the stack, is a solid waste stream produced in this process. Five facilities concentrate WPPA to make superphosphoric acid (SPA), typically using the vacuum evaporation process. While one manufacturer is permitted to use a submerged combustion process for the production of SPA, that

process was indefinitely shutdown on June 1, 2006. The majority of WPPA is used to produce phosphate fertilizers.

Additional processes may also be used to further refine phosphoric acid. At least two facilities have a defluorination process to remove fluorides from the phosphoric acid product, and one company uses a solvent extraction process to remove metals and organics and to further refine WPPA into purified phosphoric acid (PPA) for use in food manufacturing or specialized chemical processes. In addition, four facilities have oxidation processes to remove organics from the acid (i.e., the green acid process). One of these facilities also calcines the ore prior to the acidulation process to help achieve the desired organic content reduction for the final acid product.

Sources of HF emissions from phosphoric acid plants include gypsum dewatering stacks, cooling ponds, cooling towers, calciners, reactors, filters, evaporators and other process equipment.

2. Federal Air Emission Standards Applicable to the Phosphoric Acid Manufacturing Source Category

The following federal air emission standards are associated with the Phosphoric Acid Manufacturing source category and are the subject of this final action:

- National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants (40 CFR part 63, subpart AA);

- Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants (40 CFR part 60, subpart T); and
- Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants (40 CFR part 60, subpart U).

a. Phosphoric Acid Manufacturing NESHAP Emission Regulations.

The EPA promulgated 40 CFR part 63, subpart AA for the Phosphoric Acid Manufacturing source category on June 10, 1999 (64 FR 31358). The NESHAP established standards for major sources to control HAP emissions from phosphoric acid facilities. Total fluoride emission limits, as a surrogate for the HAP HF, were set for WPPA process lines and SPA process lines. The NESHAP established emission limits for particulate matter (PM) from phosphate rock dryers and phosphate rock calciners as a surrogate for metal HAP. Also, the NESHAP established an emission limit for methyl isobutyl ketone (MIBK) for PPA process lines and work practices for cooling towers. For more information on this NESHAP, see 79 FR 66512.

b. Phosphoric Acid Manufacturing NSPS Emission Regulations. The EPA promulgated 40 CFR part 60, subpart T for WPPA Plants on August 6, 1975 (40 FR 33154). The NSPS established standards to control total fluoride emissions from WPPA plants, including reactors, filters, evaporators, and hot wells.

The EPA promulgated 40 CFR part 60, subpart U for SPA Plants on August 6, 1975 (40 FR 33155). The NSPS established

standards to control total fluoride emissions from SPA plants, including evaporators, hot wells, acid sumps, and cooling tanks.

For more information on these NSPS, see 79 FR 66512.

3. Description of Phosphate Fertilizer Production Source Category

There are 11 operating facilities that produce phosphate fertilizers, and most facilities have the ability to produce either monoammonium phosphates (MAP) or diammonium phosphates (DAP) in the same process train. However, approximately 80 percent of all ammonium phosphates are produced as MAP. MAP and DAP plants are generally collocated with WPPA plants since both are manufactured from phosphoric acid and ammonia. The MAP and DAP manufacturing process consists of three basic steps: Reaction, granulation, and finishing operations such as drying, cooling, and screening. Sources of fluoride emissions from MAP and DAP plants include the reactor, granulator, dryer, cooler, screens, and mills. Some of the fluoride is liberated as HF and silicon tetrafluoride (SiF_4), but the majority is emitted as HF.

Triple superphosphates (TSP) are made as run-of-pile TSP (ROP-TSP) and granular TSP (GTSP) by reacting WPPA with ground phosphate rock. The phosphoric acid used in the GTSP process is appreciably lower in concentration (40-percent phosphorus pentoxide (P_2O_5)) than that used to manufacture ROP-TSP product (50 to 55-percent P_2O_5). The GTSP process yields larger, more

uniform particles with improved storage and handling properties than the ROP-TSP process. Currently, no facilities produce ROP-TSP or GTSP,[2] although one facility retains an operating permit to store GTSP.

4. Federal Air Emission Standards Applicable to the Phosphate Fertilizer Production Source Category

The following federal air emission standards are associated with the Phosphate Fertilizer Production source category and are subject of this final action:

- National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants (40 CFR part 63, subpart BB);
- Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants (40 CFR part 60, subpart V);
- Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants (40 CFR part 60, subpart W); and
- Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities (40 CFR part 60, subpart X).

a. Phosphate Fertilizer Production NESHAP Emission Regulations.

The EPA promulgated 40 CFR part 63, subpart BB for the Phosphate Fertilizer Production source category on June 10, 1999 (64 FR 31358). The NESHAP established standards for major sources to control HAP emissions from phosphate fertilizer facilities. As a

[2] According to 2014 production and trade statistics issued by International Fertilizer Industry Association (IFA).

surrogate for HF, the NESHAP set total fluoride emission limits for DAP and/or MAP process lines and GTSP process lines and storage buildings. The NESHAP also established work practices for GTSP production. For more information on this NESHAP, see 79 FR 66512.

b. Phosphate Fertilizer Production NSPS Emission Regulations.

The EPA promulgated 40 CFR part 60, subpart V for Diammonium Phosphate Plants on July 25, 1977 (42 FR 37938). The NSPS established standards to control total fluoride emissions from granular DAP plants, including reactors, granulators, dryers, coolers, screens, and mills.

The EPA promulgated 40 CFR part 60, subpart W for TSP plants on July 25, 1977 (42 FR 37938). The NSPS established standards to control total fluoride emissions from the production of ROP-TSP and GTSP, and the storage of ROP-TSP.

The EPA promulgated 40 CFR part 60, subpart X for GTSP storage facilities on July 25, 1977 (42 FR 37938). The NSPS established standards to control total fluoride emissions from the storage of GTSP, including storage or curing buildings (noted as “piles” in subpart X), conveyors, elevators, screens, and mills.

For more information on these NSPS, see 79 FR 66512.

C. What changes did we propose for the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production source categories in our November 7, 2014 proposal?

On November 7, 2014 (79 FR 66512), the EPA published a proposed rule in the **Federal Register** for both the Phosphoric Acid Manufacturing NESHAP, 40 CFR part 63, subpart AA, and Phosphate Fertilizer Production NESHAP, 40 CFR part 63, subpart BB that took into consideration the RTR analyses. We also proposed other revisions to these NESHAP. In the proposed rule, we proposed:

For Phosphoric Acid Manufacturers:

- Numeric emission limits for Hg and work practice standards for HF from calciners; and
- Work practice standards for HF emissions from gypsum dewatering stacks and cooling ponds.

For both Phosphoric Acid Manufacturers and Phosphate Fertilizer Producers:

- Emission limits regulating HF emissions as the target HAP (HF), instead of the long-standing surrogate for HF, total F;
- Clarifications to applicability and certain definitions;
- Revisions to requirements related to emissions during periods of SSM;
- Revisions to monitoring requirements for absorbers;
- Requirements for reporting of performance testing through the electronic reporting tool (ERT);
- Modification to the format to reference tables for emissions limits and monitoring requirements; and
- Several minor clarifications and corrections.

In addition, we proposed revisions to the NSPS subparts T, U, V, W, and X, including clarifications to applicability and certain definitions, and revisions to monitoring and recordkeeping requirements for absorbers.

III. What is included in this final rule for the Phosphoric Acid Manufacturing source category?

This action finalizes the EPA's determinations pursuant to the RTR provisions of CAA section 112 and the 8-year review provisions of CAA section 111 for the Phosphoric Acid Manufacturing source category. Today's action also finalizes several of the proposed changes to the NESHAP subpart AA and the NSPS subparts T and U that are described in section II.C. of this preamble. This action also finalizes other changes to the NESHAP subpart AA in consideration of comments on issues raised in the proposed rulemaking, as described in section V of this preamble.

A. What are the final rule amendments based on the NESHAP residual risk review for the Phosphoric Acid Manufacturing source category?

The residual risk review for the Phosphoric Acid Manufacturing source category did not change since proposal; we found that the current standards provide an ample margin of safety to protect public health (79 FR 66512) and prevent an adverse environmental effect. We are, therefore, not tightening the standards under section 112(f)(2)(for NESHAP subpart AA)

based on the residual risk review, and are thus readopting the existing standards under section 112(f)(2). See sections V.A.3 and V.A.4 of this preamble for discussion on key comments and responses regarding the residual risk review.

B. What are the final rule amendments based on the NESHAP technology review for the Phosphoric Acid Manufacturing source category?

The technology review for the Phosphoric Acid Manufacturing source category did not change since proposal (79 FR 66512). We determined that there are no cost-effective developments in practices, processes, and control technologies that warrant revisions to the MACT standards for this source category (79 FR 66512). Therefore, we are not amending the MACT standards under CAA section 112(d)(6). See sections V.B.3 and V.B.4 of this preamble for discussion on key comments and responses regarding the technology review.

C. What are the final rule amendments pursuant to CAA sections 112(d)(2), 112(d)(3), and 112(h) for the Phosphoric Acid Manufacturing source category?

We are finalizing MACT standards for HF and Hg pursuant to CAA sections 112(d)(2) and 112(d)(3) for phosphate rock calciners, an emissions source that was initially regulated for HAP metals using PM as a surrogate. Specifically, we are finalizing, as proposed, the elimination of the use of PM as a

surrogate for Hg; however, we are making changes to the proposed Hg emission limit for phosphate rock calciners in NESHAP subpart AA to reflect MACT floor level emission standards for existing sources. We are finalizing the proposed beyond-the-floor (BTF) emission standard for Hg emissions from new phosphate rock calciners. We discuss the changes to the Hg emission limit in section V.C.3.a.i of this preamble. In addition, we are finalizing, as proposed, to retain the PM standard as a surrogate for other HAP metal emissions from phosphate rock calciners. However, in consideration of comments received during the public comment period for the proposed rulemaking, we are not finalizing work practice standards for HF from phosphate rock calciners, as proposed. Instead, as discussed in section V.C.3.a.ii of this preamble, we are including a total fluoride emission limit for phosphate rock calciners in NESHAP subpart AA.

Also, in consideration of comments received (see section V.C.3.b.i of this preamble for details), we are not adopting the proposed work practice in NESHAP subpart AA that would limit the size of active gypsum dewatering stacks (which would have been applicable to facilities when new gypsum dewatering stacks are constructed). Lastly, we are finalizing work practice standards pursuant to CAA section 112(h) for gypsum dewatering stacks and cooling ponds -- emissions sources that were not regulated under

the initial MACT standard. Specifically, we are finalizing in NESHAP subpart AA, as proposed, the work practice standard that requires owners or operators to prepare and operate in accordance with a gypsum dewatering stack and cooling pond management plan. However, based on analysis of public comments, we are making several changes to the specific control techniques that we proposed as options in the plan for controlling fugitive HF emissions (see section V.C.3.b.ii of this preamble for details on these changes). In the final rule, the Agency is using the terminology "control measures" in lieu of the proposed terminology "control techniques" because we feel this more accurately describes the list of options in the rule and avoids confusion with other CAA programs.

D. What are the final rule amendments based on the NSPS review for the Phosphoric Acid Manufacturing source category?

We are finalizing our determination that revisions to NSPS subpart T and subpart U standards are not appropriate pursuant to CAA section 111(b)(1)(B). All Phosphoric Acid Manufacturing NSPS (under subpart T and subpart U) emission sources, and the control technologies that would be employed, are the same as those for the NESHAP regulating phosphoric acid plants, such that we reached the same determination that there are no identified cost-effective practices or technologies that would provide additional emission reductions. Additionally, there were

no identified technologies that have been adequately demonstrated to achieve in practice emission controls that would result in more stringent total fluoride limits for these NSPS. See section V.D of this preamble for discussion on key comments and responses regarding the NSPS review.

E. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction for the Phosphoric Acid Manufacturing source category?

We are finalizing, as proposed, changes to the Phosphoric Acid Manufacturing NESHAP, subpart AA to eliminate the SSM exemption. Consistent with Sierra Club v. EPA 551 F. 3d 1019 (D.C. Cir. 2008), the EPA has established standards in this rule that apply at all times. Appendix A of subpart AA (the General Provisions Applicability Table) is being revised to change several references related to requirements that apply during periods of SSM. We also eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption. The EPA also made changes to the rule to remove or modify inappropriate, unnecessary, or redundant language in the absence of the SSM exemption. For this source category, we determined that work practice standards for periods of startup and shutdown are appropriate in lieu of numeric emission limits due to the short duration of startup and shutdown, and control devices used on the various process lines

in this source category are effective at achieving desired emission reductions immediately upon startup (79 FR 66541). Therefore, we are finalizing in NESHAP subpart AA the proposed work practice standards for periods of startup and shutdown. However, in consideration of comments received during the public comment period, we are making changes to the work practice standards in order to clarify that the standard applies in lieu of numeric emission limits and how compliance with the standard is demonstrated. In order to comply with the work practice standard, facilities must monitor the same control device operating parameters and comply with the same operating limits that are established to otherwise comply with the emission limits. Additionally, we added a definition of "startup" and "shutdown" in the definitions section of the final rule to specify when startup begins and ends, and when shutdown begins and ends. See section V.E.3 of this preamble for details on these changes.

F. What other changes are we making to the NESHAP and NSPS for the Phosphoric Acid Manufacturing source category?

Today's rule also finalizes, as proposed, revisions to several other Phosphoric Acid Manufacturing NESHAP and NSPS requirements. We are finalizing, as proposed, several miscellaneous changes to clarify applicability and certain definitions, as follows:

- Adopting the proposed SPA process line definition in NESHAP subpart AA to include oxidation reactors;
- Adopting the proposed SPA plant definition in NSPS subpart U to include oxidation reactors;
- Finalizing the proposed revisions to rename "gypsum stack" to "gypsum dewatering stack" in NESHAP subpart AA; and
- Finalizing the proposed definitions for "cooling pond" and "raffinate stream" in NESHAP subpart AA.

We are finalizing, as proposed, several changes to testing, monitoring, recordkeeping and reporting requirements to provide consistency, clarification and flexibility, as follows:

- Finalizing the proposed revisions to NESHAP subpart AA that require a minimum pressure drop of 5 inches of water column for facilities that use pressure differential in parametric monitoring;
- Finalizing the proposal to remove the requirement in NESHAP subpart AA that facilities must request and obtain approval of the Administrator for changing operating limits;
- Adopting the proposed addition of a site-specific monitoring plan and calibration requirements for a continuous monitoring system (CMS) in NESHAP subpart AA;
- Adopting the proposed term "absorber" in lieu of "scrubber" in NESHAP subpart AA;
- Adopting the proposed format of NESHAP subpart AA to reference tables for emissions limits and monitoring requirements;
- Adopting the proposed provisions in NSPS subpart T and NSPS subpart U that require the owner or operator to establish an allowable range for the pressure drop through the process scrubbing system, keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations; and
- Adopting the proposed term "absorber" in lieu of "process scrubbing system" in NSPS subpart T and NSPS subpart U.

We are also finalizing changes to the NESHAP and NSPS for the Phosphoric Acid Manufacturing source category on issues

raised in response to the proposed rulemaking, as follows (refer to section V.F.2 of this preamble for further details):

- Revising the definition of oxidation reactor in the final rule for NESHAP subpart AA and NSPS subpart U;
- Finalizing liquid-to-gas ratio monitoring in NESHAP subpart AA for low-energy absorbers (i.e., absorbers that are designed to operate with pressure drops of 5 inches of water column or less) in lieu of monitoring influent liquid flow and pressure drop through the absorber;
- Clarifying in NESHAP subpart AA that during the most recent performance test, if owners or operators demonstrate compliance with the emission limit while operating their control device outside the previously established operating limit, owners or operators must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test; and
- Clarifying in NESHAP subpart AA that facilities not be required to obtain approval, and, instead, immediately comply with a new operating limit when it is developed and submitted to the Administrator.

G. What are the effective and compliance dates of the standards for the Phosphoric Acid Manufacturing source category?

The revisions to the NSPS and NESHAP standards we promulgate in this action for the Phosphoric Acid Manufacturing source category are effective on **[insert date of publication in the Federal Register]**.

The compliance date for the Hg limit in NESHAP subpart AA for existing phosphate rock calciners is [**insert date of publication in the Federal Register**]. Based on the data that the EPA has received, all existing phosphate rock calciners are

meeting the Hg limit; therefore, no additional time would be required to achieve compliance with this standard.

The compliance date for the Hg limit in NESHAP subpart AA for new phosphate rock calciners is [**insert date of publication in the Federal Register**], or upon startup, whichever is later. We are not aware of any new phosphate rock calciners operating today. New phosphate rock calciners that commence construction or reconstruction after the effective date of this rule would be required to comply with the Hg limits immediately upon startup.

The compliance date for the total fluoride limits in NESHAP subpart AA for all (existing and new) phosphate rock calciners is [**insert date of publication in the Federal Register**], or upon startup, whichever is later. Based on the data that the EPA has received, all phosphate rock calciners are meeting the total fluoride limit; therefore, no additional time would be required to achieve compliance with this standard.

The compliance date in NESHAP subpart AA for preparing and operating in accordance with a gypsum dewatering stack and cooling pond management plan is [**insert date 1 year after the date of publication in the Federal Register**]. A 1-year compliance lead-time will provide facilities adequate time to prepare and submit their plan for approval to the Administrator.

The compliance date for when facilities must include oxidation reactors in determining compliance with the total

fluoride limit in NESHAP subpart AA for SPA process lines is [**insert date 1 year after the date of publication in the Federal Register**]. We believe that 1 year is necessary because a facility may need to install additional control technology. A 1-year compliance period will provide the facility adequate time to design and install controls.

The compliance date in NESHAP subpart AA for when to install, calibrate, and maintain a bag leak detection system on a fabric filter is [**insert date 1 year after the date of publication in the Federal Register**]. We believe that 1 year is necessary because some facilities that currently operate a fabric filter do not have a bag leak detection system and will need time to purchase and install this compliance monitoring equipment and implement quality assurance measures.

The compliance date in NESHAP subpart AA for the revised startup and shutdown requirements is [**insert date of publication in the Federal Register**]. We determined that the feasibility of operating the control devices used to control HAP emissions from phosphoric acid manufacturing is not limited by specific process operating conditions.

Finally, to ensure continuous compliance with the standard, the compliance date for the monitoring and recordkeeping requirements in NSPS subparts T and U for all new WPPA plants

and SPA plants is [**insert date of publication in the Federal Register**], or upon startup, whichever is later.

H. What are the requirements for submission of performance test data to the EPA for the Phosphoric Acid Manufacturing source category?

As stated in the preamble to the proposed rule, the EPA is taking a step to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is requiring owners and operators of phosphoric acid facilities to submit electronic copies of certain required performance test reports.

As mentioned in the preamble of the proposal, data will be collected by direct computer-to-computer electronic transfer using EPA-provided software. As discussed in the proposal, the EPA-provided software is an electronic performance test report tool called the ERT. The ERT will generate an electronic report package which will be submitted to the Compliance and Emissions Data Reporting Interface (CEDRI) and then archived to the EPA's Central Data Exchange (CDX). A description and instructions for use of the ERT can be found at http://www.epa.gov/ttn/chief/ert/index.html, and CEDRI can be accessed through the CDX Web site at www.epa.gov/cdx.

The requirement to submit performance test data electronically to the EPA does not create any additional

performance testing and will apply only to those performance tests conducted using test methods that are supported by the ERT. A listing of the pollutants and test methods supported by the ERT is available at the ERT Web site. The EPA believes, through this approach, industry will save time in the performance test submittal process. Additionally, this rulemaking benefits industry by cutting back on recordkeeping costs as the performance test reports that are submitted to the EPA using CEDRI are no longer required to be kept in hard copy.

As mentioned in the proposed preamble, state, local, and tribal agencies will benefit from more streamlined and accurate review of performance test data that will be available on the EPA WebFIRE database. The public will also benefit. Having these data publicly available enhances transparency and accountability. For a more thorough discussion of electronic reporting of performance tests using direct computer-to-computer electronic transfer and using EPA-provided software, see the discussion in the preamble of the proposal.

In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, having an electronic database populated with performance test data will save industry, state, local, and tribal agencies, and the EPA significant time, money, and effort, while improving the quality of emission inventories,

air quality regulations, and enhancing the public's access to this important information.

IV. What is included in this final rule for the Phosphate Fertilizer Production source category?

This action finalizes the EPA's determinations pursuant to the RTR provisions of CAA section 112 and the 8-year review provisions of CAA section 111 for the Phosphate Fertilizer Production source category. Today's action also finalizes several of the proposed changes to the NESHAP subpart BB and the NSPS subparts V, W, and X that are described in section II.C of this preamble. This action also finalizes other changes to the NESHAP subpart BB in consideration of comments on issues raised in the proposed rulemaking, as described in section VI of this preamble.

A. What are the final rule amendments based on the NESHAP risk review for the Phosphate Fertilizer Production source category?

The residual risk review for the Phosphate Fertilizer Production source category did not change since proposal; we found that the current standards provide an ample margin of safety to protect public health (79 FR 66512) and prevent an adverse environmental effect. We are, therefore, not tightening the standards under section 112(f)(2) (for NESHAP subpart BB) based on the residual risk review, and are thus readopting the existing standards under section 112(f)(2).

B. What are the final rule amendments based on the NESHAP technology review for the Phosphate Fertilizer Production source category?

The technology review for the Phosphate Fertilizer Production source category did not change since proposal (79 FR 66512). We determined that there are no cost-effective developments in practices, processes, and control technologies that warrant revisions to the MACT standards for this source category (79 FR 66512). Therefore, we are not amending the MACT standards under CAA section 112(d)(6).

C. What are the final rule amendments based on the NSPS review for the Phosphate Fertilizer Production source category?

We are finalizing our determination that revisions to NSPS subpart V, subpart W, and subpart X standards are not appropriate pursuant to CAA section 111(b)(1)(B). All Phosphate Fertilizer Production NSPS (under subpart V, subpart W, and subpart X) emission sources, and the control technologies that would be employed, are the same as those for the NESHAP regulating phosphate fertilizer plants, such that we reached the same determination that there are no identified cost-effective practices or technologies that would provide additional emission reductions. Additionally, there were no identified technologies that have been adequately demonstrated to achieve in practice

emission controls that would result in more stringent total fluoride limits for these NSPS.

D. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction for the Phosphate Fertilizer Production source category?

We are finalizing, as proposed, changes to the Phosphate Fertilizer Production NESHAP, subpart BB to eliminate the SSM exemption. Consistent with Sierra Club v. EPA 551 F. 3d 1019 (D.C. Cir. 2008), the EPA has established standards in this rule that apply at all times. Appendix A of subpart BB (the General Provisions Applicability Table) is being revised to change several references related to requirements that apply during periods of SSM. We also eliminated or revised certain recordkeeping and reporting requirements related to the eliminated SSM exemption. The EPA also made changes to the rule to remove or modify inappropriate, unnecessary, or redundant language in the absence of the SSM exemption. For this source category, we determined that work practice standards for periods of startup and shutdown are appropriate in lieu of numeric emission limits due to the short duration of startup and shutdown, and control devices used on the various process lines in this source category are effective at achieving desired emission reductions immediately upon startup (79 FR 66551). Therefore, we are finalizing in NESHAP subpart BB the proposed

work practice standards for periods of startup and shutdown. However, in consideration of comments received during the public comment period, we are making changes to the work practice standards in order to clarify that the standard applies in lieu of numeric emission limits and how compliance with the standard is demonstrated. In order to comply with the work practice standard, facilities must monitor the same control device operating parameters and comply with the same operating limits that are established to otherwise comply with the emission limits. Additionally, we added a definition of "startup" and "shutdown" in the definitions section of the final rule to specify when startup begins and ends, and when shutdown begins and ends. See section VI.D.3 of this preamble for details on these changes.

E. What other changes are we making to the NESHAP and NSPS for the Phosphate Fertilizer Production source category?

Today's rule also finalizes, as proposed, revisions to several other Phosphate Fertilizer Production NESHAP and NSPS requirements. We are finalizing, as proposed, changes to clarify applicability and certain definitions, as follows:

- Adopting the proposed conditions in NESHAP subpart BB that exclude the use of evaporative cooling towers for any liquid effluent from any wet scrubbing device installed to control HF emissions from process equipment; and
- Finalizing the proposed revisions changing the word "cookers" in NSPS subpart W to "coolers."

We are finalizing, as proposed, several changes to testing, monitoring, recordkeeping, and reporting to provide consistency, clarification, and flexibility, as follows:

- Finalizing the proposed revisions to NESHAP subpart BB that require a minimum pressure drop of 5 inches of water column for facilities that use pressure differential in parametric monitoring;
- Finalizing the proposal to remove the requirement in NESHAP subpart BB that facilities must request and obtain approval of the Administrator for changing operating limits;
- Adopting the proposed monitoring requirements for fabric filters in NESHAP subpart BB;
- Adopting the proposed addition of a site-specific monitoring plan and calibration requirements for CMS in NESHAP subpart BB;
- Adopting the proposed term "absorber" in lieu of "scrubber" in NESHAP subpart BB;
- Adopting the proposed format of NESHAP subpart BB to reference tables for emissions limits and monitoring requirements;
- Adopting the proposed provisions in NSPS subpart V, NSPS subpart W, and NSPS subpart X that require the owner or operator to establish an allowable range for the pressure drop through the process scrubbing system, keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations;
- Adopting the proposed term "absorber" in lieu of "scrubbing system" in NSPS subpart V; and
- Adopting the proposed term "absorber" in lieu of "process scrubbing system" in NSPS subpart W and NSPS subpart X.

We are also finalizing changes to the NESHAP and NSPS for the Phosphate Fertilizer Production source category on issues raised in response to the proposed rulemaking, as follows (refer to section VI.E.2 of this preamble for further details):

- Revising the definitions of "phosphate fertilizer process line" and "phosphate fertilizer production plant" in NESHAP subpart BB to reference granular phosphate fertilizer;
- Finalizing liquid-to-gas ratio monitoring in NESHAP subpart BB for low-energy absorbers (i.e., absorbers that are designed to operate with pressure drops of 5 inches of water column or less) in lieu of monitoring influent liquid flow and pressure drop through the absorber;
- Clarifying in NESHAP subpart BB that during the most recent performance test, if owners or operators demonstrate compliance with the emission limit while operating their control device outside the previously established operating limit, owners or operators must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test; and
- Clarifying in NESHAP subpart BB that facilities not be required to obtain approval, and, instead, immediately comply with a new operating limit when it is developed and submitted to the Administrator.

F. What are the effective and compliance dates of the standards for the Phosphate Fertilizer Production source category?

The revisions to the NSPS and NESHAP standards being promulgated in this action for the Phosphate Fertilizer Production source category are effective on **[insert date of publication in the Federal Register]**.

The compliance date in NESHAP subpart BB for when to install, calibrate, and maintain a bag leak detection system on a fabric filter is [**insert date 1 year after the date of publication in the Federal Register**]. We believe that 1 year is necessary because some facilities that currently operate a fabric filter do not have a bag leak detection system and will

need time to purchase and install this compliance monitoring equipment and implement quality assurance measures.

The compliance date in NESHAP subpart BB for the revised startup and shutdown requirements is [**insert date of publication in the Federal Register**]. We determined that the feasibility of operating the control devices used to control HAP emissions from phosphate fertilizer production is not limited by specific process operating conditions.

Finally, to ensure continuous compliance with the standard, the compliance date for the monitoring and recordkeeping requirements in NSPS subparts V, W, and X for all new granular DAP plants, TSP plants, and GTSP storage facilities is [**insert date of publication in the Federal Register**], or upon startup, whichever is later.

G. What are the requirements for submission of performance test data to the EPA for the Phosphate Fertilizer Production source category?

As stated in the preamble to the proposed rule, the EPA is taking a step to increase the ease and efficiency of data submittal and data accessibility. Specifically, the EPA is requiring owners and operators of phosphate fertilizer facilities to submit electronic copies of certain required performance test reports.

As mentioned in the preamble of the proposal, data will be collected by direct computer-to-computer electronic transfer using EPA-provided software. As discussed in the proposal, the EPA-provided software is an electronic performance test report tool called the Electronic Reporting Tool (ERT). The ERT will generate an electronic report package which will be submitted to the Compliance and Emissions Data Reporting Interface (CEDRI) and then archived to the EPA's Central Data Exchange (CDX). A description and instructions for use of the ERT can be found at http://www.epa.gov/ttn/chief/ert/index.html, and CEDRI can be accessed through the CDX Web site at www.epa.gov/cdx.

The requirement to submit performance test data electronically to the EPA does not create any additional performance testing and will apply only to those performance tests conducted using test methods that are supported by the ERT. A listing of the pollutants and test methods supported by the ERT is available at the ERT Web site. The EPA believes, through this approach, industry will save time in the performance test submittal process. Additionally, this rulemaking benefits industry by cutting back on recordkeeping costs as the performance test reports that are submitted to the EPA using CEDRI are no longer required to be kept in hard copy.

As mentioned in the proposed preamble, state, local, and tribal agencies will benefit from more streamlined and accurate

review of performance test data that will be available on the EPA WebFIRE database. The public will also benefit. Having these data publicly available enhances transparency and accountability. For a more thorough discussion of electronic reporting of performance tests using direct computer-to-computer electronic transfer and using EPA-provided software, see the discussion in the preamble of the proposal.

In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, having an electronic database populated with performance test data will save industry, state, local, and tribal agencies, and the EPA significant time, money, and effort while improving the quality of emission inventories, air quality regulations, and enhancing the public's access to this important information.

V. What is the rationale for our final decisions and amendments for the Phosphoric Acid Manufacturing source category?

For each issue related to the Phosphoric Acid Manufacturing source category, this section provides a description of what we proposed and what we are finalizing for the issue, the EPA's rationale for the final decisions and amendments, and a summary of key comments and responses. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be

found in the Comment Summary and Response document available in the docket.

A. Residual Risk Review for the Phosphoric Acid Manufacturing Source Category

1. What did we propose pursuant to CAA section 112(f) for the Phosphoric Acid Manufacturing source category?

Pursuant to CAA section 112(f), we conducted a residual risk review and presented the results of this review, along with our proposed decisions regarding risk acceptability and ample margin of safety, in the November 7, 2014, proposed rule for the Phosphoric Acid Manufacturing NESHAP (79 FR 66512). The results of the risk assessment are presented briefly below in Table 2 of this preamble, and in more detail in the residual risk document, "Residual Risk Assessment for Phosphate Fertilizer Production and Phosphoric Acid Manufacturing Source Categories in support of the July 2015 Risk and Technology Review Final Rule," which is available in the docket for this rulemaking.

Table 2. Human Health Risk Assessment for Phosphoric Acid Manufacturing

Category & Number of Facilities Modeled	Cancer MIR (in 1 million)		Cancer Incidence (cases per year)	Population with risks of 1-in-1 million or more	Population with risks of 10-in-1 million or more	Max Chronic Non-cancer HI		Worst-case Max Acute Non-cancer HQ
	Based on Actual Emissions	Based on Allowable Emissions				Based on Actual Emissions	Based on Allowable Emissions	
Phosphoric Acid (12 facilities)	0.09	0.09	0.0002	0	0	0.2	0.3	HQ_{REL} = 2 (hydrofluoric acid) HQ_{AEGL}-1 = 0.6 (hydrofluoric acid)
Facility-wide (12 facilities)	0.5	–	0.001	0	0	0.2	–	–

Based on actual emissions for the Phosphoric Acid Manufacturing source category, the maximum individual risk (MIR) was estimated to be less than 1-in-1 million, the maximum chronic non-cancer target organ-specific hazard index (TOSHI) value was estimated to be up to 0.2, and the maximum off-site acute hazard quotient (HQ) value was estimated to be up to 2. The total estimated national cancer incidence from this source category, based on actual emission levels, was 0.0002 excess cancer cases per year, or one case in every 5,000 years. Based on MACT-allowable emissions for the Phosphoric Acid Manufacturing source category, the MIR was estimated to be less than 1-in-1 million, and the maximum chronic non-cancer TOSHI value was estimated to be up to 0.3. We also found there were emissions of several persistent and bio-accumulative HAP (PB-

HAP) with an available RTR multipathway screening value, and with the exception of Hg and cadmium compounds, the reported emissions of these HAP (i.e., lead compounds, dioxin/furan compounds, and polycyclic organic matter (POM) compounds), were below the multipathway screening value for each compound. One facility emitted divalent Hg (Hg^{2+}) above the Tier I screening threshold level, exceeding the screening threshold by a factor of 7 and the cadmium emissions exceeded the cadmium screening threshold by a factor of 2. Consequently, we conducted a Tier II screening assessment, in which both pollutants of concern were below the Tier II screening threshold, indicating no potential for multipathway impacts of concern from this facility. The maximum facility-wide MIR was less than or equal to 1-in-1 million and the maximum facility-wide TOSHI was 0.2. We weighed all health risk factors in our risk acceptability determination, and we proposed that the residual risks from the Phosphoric Acid Manufacturing source category are acceptable.

We then considered whether the Phosphoric Acid Manufacturing NESHAP provides an ample margin of safety to protect public health and prevents, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. In considering whether the standards should be tightened to provide an ample margin of safety to protect public health, we considered the same risk factors that

we considered for our acceptability determination and also considered the costs, technological feasibility, and other relevant factors related to emissions control options that might reduce risk associated with emissions from the source category. We proposed that the current standards provided an ample margin of safety to protect public health. With respect to adverse environmental effects, none of the individual modeled concentrations for any facility in the source category exceeded any of the ecological benchmarks (either the lowest-observed-adverse-effect level (LOAEL) or no-observed-adverse-effect level (NOAEL)). Based on the results of our screening analysis for risks to the environment, we also proposed that the current standards prevent an adverse environmental effect.

2. How did the risk review change for the Phosphoric Acid Manufacturing source category?

The residual risk review for the Phosphoric Acid Manufacturing source category did not change since proposal (79 FR 66512). Accordingly, we are not tightening the standards under section 112(f)(2) based on the residual risk review, and are thus readopting the existing standards under section 112(f)(2).

3. What key comments did we receive on the risk review, and what are our responses?

The comments received on the proposed residual risk review were generally supportive of our determination of risk acceptability and ample margin of safety analysis. However, we received several comments requesting we make changes to the residual risk review, including:

- Update the residual risk review with the recommendations and information from the National Academy of Sciences (NAS);
- Incorporate the best currently available information on children's exposure to lead, and go beyond using the 2008 Lead National Ambient Air Quality Standards (NAAQS);
- Reevaluate whether the residual risk review is consistent with the key recommendations made by the Science Advisory Board (SAB);
- Clarify in the rulemaking docket that data received by industry were commensurate with the relevant statutory obligations;
- Revise HF emission data because they are not representative of actual HF emissions, but rather overestimate emissions causing the residual risk review to have an overtly conservative bias;
- Reconsider the assumption used in the NESHAP residual risk assessment that all chromium is hexavalent chromium;
- Revise certain stack parameters used in the analysis;
- Clarify meteorological data used in the analysis;
- Adequately explain rationale for the maximum 1-hour emission rate used for determining potential acute exposures;
- Clarify the selection of ecological assessment endpoints; and
- Provide some quantitative or qualitative rationale for the characterization of the exposure modeling uncertainty.

We evaluated the comments and determined that no changes were needed. Since none of these comments had an effect on the final rule, their summaries and corresponding EPA responses are

not included in this preamble. A summary of these comments and our responses can be found in the Comment Summary and Response document available in the docket for this action (EPA-HQ-OAR-2012-0522).

4. What is the rationale for our final approach and final decisions for the risk review?

For the reasons explained in the proposed rule, we determined that the risks from the Phosphoric Acid Manufacturing source category are acceptable, the current standards provide an ample margin of safety to protect public health, and prevent an adverse environmental effect. Since proposal, neither the risk assessment nor our determinations regarding risk acceptability, ample margin of safety or adverse environmental effects have changed. Therefore, pursuant to CAA section 112(f)(2), we are finalizing our residual risk review as proposed.

B. Technology Review for the Phosphoric Acid Manufacturing Source Category

1. What did we propose pursuant to CAA section 112(d)(6) for the Phosphoric Acid Manufacturing source category?

Pursuant to CAA section 112(d)(6), we conducted a technology review, which focused on identifying and evaluating developments in practices, processes, and control technologies for the emission sources in the Phosphoric Acid Manufacturing source category. At proposal, we did not identify cost-effective

developments in practices, processes, or control technologies that warrant revisions to the NESHAP for this source category. More information concerning our technology review can be found in the memorandum, "CAA Section 111(b)(1)(B) and 112(d)(6) Reviews for the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production Source Categories," which is available in the docket, and in the preamble to the proposed rule, 79 FR 66538-66539.

2. How did the technology review change for the Phosphoric Acid Manufacturing source category?

The technology review for the Phosphoric Acid Manufacturing source category did not change since proposal (79 FR 66512). Therefore, we are not revising NESHAP subpart AA based on the technology review.

3. What key comments did we receive on the technology review, and what are our responses?

Commenters agreed with our conclusion that there are no new cost-effective developments in practices, processes, or control technologies that can be applied to the Phosphoric Acid Manufacturing source category that would reduce HAP emissions below current levels.

4. What is the rationale for our final approach for the technology review?

For the reasons explained in the proposed rule, we concluded that additional standards are not necessary pursuant to CAA section 112(d)(6); therefore, we are not finalizing changes to NESHAP subpart AA as part of our technology review.

C. CAA Sections 112(d)(2), 112(d)(3), and 112(h) for the Phosphoric Acid Manufacturing source category

1. What did we propose pursuant to CAA sections 112(d)(2), 112(d)(3), and 112(h) for the Phosphoric Acid Manufacturing source category?

We proposed MACT standards for HF and Hg pursuant to CAA sections 112(d)(2) and 112(d)(3), and work practice standards pursuant to CAA section 112(h), for phosphate rock calciners, an emissions source that was initially regulated for HAP metals using PM as a surrogate. We proposed regulating two pollutants, Hg and HF, which were not directly regulated under the initial NESHAP subpart AA. We proposed eliminating the use of PM as a surrogate for Hg and proposed a Hg emission limit for phosphate rock calciners. Because control devices may be necessary to meet the proposed Hg limits for phosphate rock calciners, we proposed monitoring and testing requirements in NESHAP subpart AA for the two types of control systems evaluated as alternatives for control of Hg: Adsorbers (typically fixed bed carbon), and sorbent injection (i.e., activated carbon injection (ACI)) followed by a wet electrostatic precipitator (WESP) or followed

by fabric filtration. We also proposed the addition of methods to monitor emissions of Hg using continuous emissions monitoring systems (CEMS). We also proposed a maximum calcination temperature of less than 1,600 degrees Fahrenheit for phosphate rock calciners as a work practice standard to control HF emissions. In addition to proposing a maximum calcination temperature, we proposed to require that emissions from phosphate rock calciners be routed to an absorber to limit emissions of HF from phosphate rock calciners.

Also, we did not propose revised emissions limits for rock dryers because this process is no longer used in the NESHAP regulated source categories for phosphoric acid or phosphate fertilizer (i.e., the rock dryers that were previously used in this industry are no longer in operation).

Finally, we proposed a work practice applicable to facilities when new gypsum dewatering stacks are constructed that would limit the size of active gypsum dewatering stacks and control fugitive HF emissions. When new gypsum dewatering stacks are constructed, we proposed that the ratio of total active gypsum dewatering stacks area (i.e., sum of the footprint acreage of all existing and new active gypsum dewatering stacks combined) to annual phosphoric acid manufacturing capacity must not be greater than 80 acres per 100,000 tons of annual phosphoric acid manufacturing capacity (equivalent P_2O_5 feed). As

we stated in the preamble to the proposed rule, limiting the size of gypsum dewatering stacks would minimize emissions by creating an upper bound on emissions. We also proposed work practice standards to control HF emissions from gypsum dewatering stacks and cooling ponds. We proposed a list of control techniques for facilities to use in development of a site-specific gypsum dewatering stack and cooling pond management plan to control fugitive HF emissions. Unless the active gypsum dewatering stack or cooling pond commenced construction or reconstruction after the date of publication of the final rule, we proposed that each facility use at least one of these control techniques. For each active gypsum dewatering stack or cooling pond that commenced construction or reconstruction after the date of publication of the final rule, we proposed that each facility use two of the listed control techniques.

2. How did our final rule change from what we proposed pursuant to CAA sections 112(d)(2), 112(d)(3), and 112(h) for the Phosphoric Acid Manufacturing source category?

In consideration of comments received during the public comment period for the proposed rulemaking, we are finalizing the proposed BTF Hg limit in NESHAP subpart AA for new phosphate rock calciners. We are not finalizing the proposed BTF Hg limit in NESHAP subpart AA for existing phosphate rock calciners.

Instead, we are finalizing a MACT floor Hg limit for existing phosphate rock calciners based on the results of the MACT floor calculations for Hg that are discussed in the preamble of the proposed rule (79 FR 66533). We are also revising our estimated costs in the final rule as discussed in section V.C.3.a.i of this preamble. In addition, we are not finalizing work practice standards for HF from phosphate rock calciners, as proposed. Instead, as discussed in section V.C.3.a.ii of this preamble, we are including a total fluoride emission limit for phosphate rock calciners in NESHAP subpart AA.

Also, in consideration of comments received (see section V.C.3.b.i of this preamble for details), we are not adopting the proposed work practice in NESHAP subpart AA that limits the size of active gypsum dewatering stacks (which would have been applicable to facilities when new gypsum dewatering stacks are constructed). Lastly, we are finalizing in NESHAP subpart AA the work practice standard as proposed that requires owners or operators to prepare and operate in accordance with a gypsum dewatering stack and cooling pond management plan. However, based on analysis of public comments, we are making several changes to the specific control techniques that we proposed as options in the plan for controlling fugitive HF emissions (see section V.C.3.b.ii of this preamble for details on these changes).

3. What key comments did we receive on what we proposed pursuant to CAA sections 112(d)(2), 112(d)(3), and 112(h), and what are our responses?

We received several comments regarding the proposed addition of numeric emission limits for Hg and work practice standards for HF emissions from phosphate rock calciners, and the addition of gypsum dewatering stack and cooling pond work practices for the Phosphoric Acid Manufacturing source category. The following is a summary of the significant comments we received regarding these topics and our responses to them. Other comments received and our responses to those comments can be found in the Comment Summary and Response document available in the docket for this action (EPA–HQ–OAR–2012–0522).

a. MACT and Work Practice Standards for Phosphate Rock Calciners -- i. Hg Emission Limits for Phosphate Rock Calciners -- Comment. Some commenters did not support the EPA's decision to set a BTF limit for Hg from phosphate rock calciners because the emissions do not present unacceptable risks nor do the emission limits yield any benefits. The commenters stated that the EPA fails to show that the proposed BTF Hg limit would produce health or environmental benefits that justify the costs of achieving the standard as they assert is required by CAA section 112(d)(2). Commenters further claimed that the EPA's own risk assessment shows that the BTF limit is not necessary from a risk

standpoint because the NESHAP regulation, prior to implementation of the proposed Hg BTF limits, provides an ample margin of safety to protect public health and prevents, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The commenters maintained that under CAA section 112(d)(2), the EPA may set an emission limit that is more stringent than the MACT floor only if the Agency determines that the BTF limit is "achievable" based on a consideration of the relative costs and benefits. One commenter cited regulations where the EPA did not set BTF limits for a particular pollutant because the benefits were minimal and the risk would not be appreciably reduced. Commenters supported setting the MACT floor as the Hg limit.

Commenters stated the Hg control devices that the EPA evaluated for the phosphate rock calciner BTF limit were not technically feasible, but did note two potential solutions. Specifically, the commenters stated that use of ACI just prior to the existing WESP or after the WESP with a fabric filter is not technically feasible. The commenters explained the exhaust gas downstream of the WESP is completely saturated and contains entrained water droplets; this would plug the fabric filter, result in performance degradation of the activated carbon, and could lead to plugging of the injection lances and formation of deposits on the ducts. The commenters further explained that it

would not be feasible to install heating systems or design engineering control to avoid these problems, due to high costs and the technical complexity. The commenters noted that installing the ACI just prior to the WESP was also not feasible, again due to performance degradation of the activated carbon, but also due to the fact that the existing WESPs could not capture the additional particulate load. The commenters reported that installing the ACI upstream of the existing venturi scrubber is technically feasible, because the gas upstream of the scrubber is not completely saturated. However, the commenters noted several design and operational modifications that would be necessary; these modifications focused on reducing the temperature of the exhaust gas streams to less than 375 degrees Fahrenheit. When installing ACI upstream of the existing venturi scrubber, the ACI vendor used by the commenter recommended the use of treated (e.g., halogenated) carbon at an injection rate of 30 lb/MMacf, in order to meet the BTF Hg limit. The commenter said that the carbon injection rate may need to be as much as 30 lb/MMacf based on site-specific conditions, such as temperature, Hg concentration, moisture, and sulfur content of the phosphate rock calciner exhaust stream. In support of a high injection rate, the commenter also cited a reference from 1994 that observed an increased injection rate was necessary due to temperature of the exhaust gas stream.

Regarding fixed-bed carbon adsorption, commenters stated a traditional fixed-bed carbon adsorption system would not be feasible due to the presence of entrained water droplets that would severely degrade sorbent performance and cause plugging within the bed. The commenters indicated that new Gore Mercury Control System (GMCS) technology might be technically feasible because it uses a fixed sorbent structure with a sorbent polymer composite material to adsorb Hg; the GMCS polymer composite material might protect the sorbent from entrained water droplets and other contaminants in the flue gas. The commenters stated that to use a GMCS fixed-bed carbon adsorption system, several adjustments to the calciners would be necessary, as well as a pilot study to confirm the feasibility. Another commenter also reported they were evaluating the use of the GMCS system, but were only in preliminary stages as their phosphate rock calciner is not yet operating. A commenter also explained that each phosphate rock calciner would need its own controls and a single control system for all phosphate rock calciners would not be feasible due to safety and operational concerns.

Several commenters argued that ACI and fixed-bed carbon adsorption were not cost effective for controlling Hg emissions from phosphate rock calciners. Two commenters reported a site-specific cost estimate for installing GMCS fixed-bed carbon adsorption downstream of the existing WESP, with capital costs

of $32 million and annual costs of $5.8 million; the resulting cost-effectiveness was approximately $40,000 per pound of Hg. The commenters noted the GMCS cost-effectiveness ($40,000/lb Hg) was much higher than the cost-effectiveness the EPA presented in the proposed rule ($8,000/lb Hg) for a traditional fixed-bed carbon adsorption system. Commenters also reported a site-specific cost estimate for installing ACI upstream of the existing venturi scrubbers, with capital costs of $21.1 million and annual costs of $9.1 million; this resulted in a cost-effectiveness of approximately $63,000 per pound of Hg. The commenters noted this ACI cost-effectiveness ($63,000/lb Hg) was much higher than the cost-effectiveness the EPA presented in the proposed rule ($12,100/lb Hg) for ACI. The commenters stated that because their costs for ACI and GMCS fixed-bed carbon adsorption were site-specific, they are much more representative than the costs developed by the EPA for the proposed rule. Finally, one commenter stressed that the site-specific Hg control cost-effectiveness numbers were well above the cost-effectiveness for other rules where the EPA implemented BTF Hg controls. Another commenter noted that preliminary information for installing Hg controls resulted in estimates of $17.5 million in capital costs and $10 million for annual costs.

Response. Based on these comments, the Agency revised the BTF costs analysis and determined that setting a BTF Hg emission

limit for existing phosphate rock calciners would impose a significant economic impact to PotashCorp (PCS) Aurora, the only facility that we are aware of with phosphate rock calciners; therefore, we are not finalizing the BTF Hg limit for existing phosphate rock calciners. The annualized control costs for this company would be approximately 0.9 percent to 5.3 percent of revenues (see "PCS Phosphate Response to USEPA Request for Aurora Plant Financial Information, May 8, 2015," which is available in the docket for this rulemaking). While these costs are small for the industry, they may be significant for the company and particularly significant for the facility. For the company, there may be a negative impact on profitability. If the company is unable to pass on the increase in the cost of manufacturing the product by raising prices, the facility will either face a potentially significant reduction in profitability or have to close a process or facility. Therefore, the Agency is finalizing a MACT floor Hg limit of 0.14 milligrams (mg) Hg per dry standard cubic meter (dscm) at 3-percent O_2 for existing phosphate rock calciners and does not anticipate that any facilities will need to install a new control device to meet the existing phosphate rock calciner Hg limit. Also, we are finalizing the proposed BTF Hg limit (i.e., 0.014 mg Hg/dscm at 3-percent O_2) for new phosphate rock calciners, as facilities should be better able to plan for the costs of controls for new

sources. The following discussion provides the details of these decisions.

The results of the residual risk analyses are not part of the BTF MACT determination, and, accordingly, the commenters' concern about not considering risk results is not appropriate. See Sierra Club v. EPA, 353 F.3d 976, 981 (D.C. Cir. 2004). Analyzing the risk would not be a practical requirement, as, typically, MACT standards are set in advance of a residual risk or technology review of the standard. Additionally, the statutory language excerpt cited by the commenter does not accurately reflect the CAA language, which requires the Agency to consider costs associated with the emission reductions, but does not require a demonstration of benefits. The Agency appropriately met its requirements under CAA section 112(c) and (d) by first evaluating a MACT floor level of control for Hg emissions from phosphate rock calciner units and then evaluating cost-effective controls for further reducing emissions BTF level.

The Agency appreciates the commenters' site-specific review of Hg control device technologies and agrees with the commenters' revisions to certain aspects of the technical feasibility of ACI and fixed-bed carbon adsorption. At proposal, we noted that high moisture streams may result in plugging of the fabric filter, as it relates to ACI use. However, we did not

consider that entrained water droplets in the high moisture streams would degrade carbon sorbent performance for both ACI and fixed-bed carbon adsorption, or lead to plugging within a fixed-bed. As a result of the additional information provided by the commenters, we agree that it is not technically feasible to use ACI just prior to the existing WESP or after the WESP with a fabric filter to control Hg emissions from phosphate rock calciners, based on current operations. Based on information available at this time, we also agree that a traditional fixed-bed carbon adsorption system is not technically feasible to control Hg emissions from phosphate rock calciners.

The commenters also stated, and the EPA agrees, that use of ACI (specifically halogenated carbon) is technically feasible to control Hg emissions from phosphate rock calciners if ACI is installed upstream of the existing venturi scrubber, where the moisture content is lower. However, we disagree with the commenters' assessment that a carbon injection rate of 30 lb/MMacf would be necessary to achieve a 90 percent reduction in Hg emissions from phosphate rock calciners. The commenters' carbon injection rate estimate is much higher than ACI installations at coal power plants and cement kilns, and while phosphate rock calciners may have unique exhaust gas properties, these properties do not warrant such an extreme carbon feed rate.

To provide additional context on carbon injection rates, we reviewed numerous ACI Hg reduction studies conducted through a National Energy Technology Laboratory (NETL) research program under the Department of Energy (DOE), as well as other studies, which are available in Docket ID No. EPA-HQ-OAR-2012-0522. In our review, we considered the impact on carbon injection rates due to temperature, moisture content, Hg concentration, sulfur content (i.e., sulfur trioxide (SO_3) concentration), and carbon sorbent type. Considering the information in these studies, we found it common for carbon injection rates of 5 lb/MMacf or less to result in 90 percent Hg removal, although higher injection rates are warranted in some instances. We also found that at certain facilities, high injection rates do not result in 90 percent Hg removal; however, in several of these cases those data are for standard powdered activated carbon (PAC), i.e., activated carbon that has not been treated with halogens, or exhaust gases containing high SO_3 concentrations. Specifically, we identified a 2008 document[3] that combines results from several studies demonstrating the relationship between PAC injection rate (lb/MMacf) and percent Hg removal. While Figure 2 in this 2008 document shows injection rates up to 20 lb/MMacf using standard PAC (e.g., not halogenated carbon), data for

[3] Refer to Figures 2 and 3 of "DOE NETL Hg Field Testing Update_2008" which is available in Docket ID No. EPA-HQ-OAR-2012-0522.

halogenated PAC, in Figure 3 of the 2008 document, shows a maximum of approximately 9 lb/MMacf in order to achieve 90 percent Hg removal from the gas stream. It accords with our general knowledge that standard PAC can have a high control efficiency if halogens are present in the flue gas to oxidize elemental Hg so that it can be adsorbed on the particles injected and subsequently captured in the particle control device. Thus, if halogens are not present in sufficient quantities to oxidize the elemental Hg present, the unoxidized Hg present will continue to be emitted, since it would not be adsorbed on the particles and captured in the particle control device. This situation can be remedied through the use of halogenated PAC, which will oxidize the elemental Hg present so that it can be adsorbed on the particles and later captured. Thus, while we agree with the vendor's recommendation that halogenated PAC is most likely to result in better Hg removal efficiencies for the phosphate rock calciners, we disagree with the relevance of the commenter's cited 1994 document. The ACI vendor used by the commenter recommended treated (e.g., halogenated) PAC as the most likely sorbent type for phosphate rock calciner Hg treatment and the cited 1994 document evaluated standard PAC. In addition, as noted above, there have been more recent studies and significant progress in PAC design since 1994, and as such we do not believe the PAC evaluated in the

1994 document would result in the Hg reductions that today's PAC can achieve. Therefore, we determined that PAC type is a critical factor for Hg removal efficiencies for this source category.

The commenter also noted that modifications focused on reducing the temperature of the exhaust gas streams would be necessary in order for ACI to be effective when installed prior to the existing venturi scrubber. This reduced operating temperature for the phosphate rock calciner exhaust would be in a similar range as coal utility boilers; it is common for coal utility boilers to have exhaust gases at temperatures exceeding 300 degrees Fahrenheit (see the documents "Coal Plant Hg Controls Update_EPA_2005" and "DOE NETL Hg Field Testing Update_2008," which are available in Docket ID No. EPA-HQ-OAR-2012-0522). Therefore, the cited coal utility boiler studies are appropriate and show that ACI is effective in the new temperature range. This further refutes the commenter's citation of the 1994 document regarding temperature concerns and the necessity of an injection rate as high as 30 lb/MMacf.

Data are available demonstrating that increased SO_3 levels are detrimental to sorbent performance. We found that higher carbon injection rates are typical for plants with higher SO_3 concentration in the exhaust stream; for coal utility boilers, this can occur when the fuel is high-sulfur bituminous coal. The

concentration of SO_3 in emissions from coal utility boilers is also increased by certain control devices (e.g., selective catalytic reduction) that do not exist at the phosphate rock calciners. For information on SO_3 impacts, see the documents "DOE NETL Hg Field Testing Update_2008" and "ADA ACI Overview_2010," which are available in Docket ID No. EPA-HQ-OAR-2012-0522. Of note, certain PAC sorbents are designed to work in high-sulfur environments (see the document "Calgon Fluepac ST brochure," available in Docket ID No. EPA-HQ-OAR-2012-0522). Based on this available information, we do not believe SO_3 concentration in the phosphate rock calciner exhaust gas stream will severely impact ACI performance to a level requiring a carbon injection rate of 30 lb/MMacf.

Additionally, we identified a pilot study that was conducted in 2007 on a cement kiln at the Ash Grove Durkee facility that resulted in more than 90 percent Hg removal efficiencies using carbon injection rates of only 3 lb/MMacf. Of note, the Hg concentration in the cement kiln exhaust gas was more than 10 times higher than the Hg concentration in the phosphate rock calciner exhaust gas. This study is presented in the document "Carbon Injection Pilot Test Durkee OR_2007," available in Docket ID No. EPA-HQ-OAR-2012-0522.

While we acknowledge that phosphate rock calciner exhaust streams may have certain unique characteristics, we do not agree

with a PAC injection rate of 30 lb/MMacf based on the data available, as discussed above. We believe a halogenated PAC injection rate of 10 lb/MMacf or lower (for ACI installed upstream of the existing venturi scrubbers) is sufficient for meeting the BTF Hg limit for phosphate rock calciners.

Commenters also noted, and the EPA agrees, that GMCS technology would be technically feasible to control Hg emissions from phosphate rock calciners. We also agree that individual GMCS fixed-bed carbon adsorption systems would be necessary for each of the six phosphate rock calciners. The commenters noted that two full-scale operations are actively using GMCS fixed-bed carbon adsorption systems to control Hg. Furthermore, based on additional discussion with industry (see "EPA Meeting Minutes for PCS Aurora Hg Discussion, March 12, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), we now know that three full-scale operations use GMCS to control Hg, with two additional operations to come online soon. These full-scale operations are located at coal power plants, not phosphoric acid manufacturing processes. Based on the vendor-provided information and the fact that GMCS technology is currently used at coal power plants to comply with Hg emission limits, we believe GMCS technology is technically feasible. In regards to the need for a pilot study, facilities would have time to design, construct, and test the system.

Although we have determined that two control technologies are technically feasible to control Hg emissions from phosphate rock calciners, we evaluated costs for the BTF Hg limit based on the estimated lower cost technology, installation of halogenated ACI upstream of the existing venturi scrubber. We used the ACI cost data provided by the commenter to estimate the costs for complying with the BTF Hg limit. However, instead of basing the annual carbon cost on an injection rate of 30 lb/MMacf, we applied injection rates of 5 and 10 lb/MMacf of halogenated carbon for reasons stated above. As provided by the commenter, the capital cost for installing six ACI units on each existing phosphate rock calciner is approximately $21,150,000. The annual cost ranges from approximately $4,320,000 (when a carbon injection rate of 5 lb/MMacf is used) to approximately $5,280,000 (when a carbon injection rate of 10 lb/MMacf is used); this results in Hg reductions of 145 pounds of Hg per year. As previously stated, these annual costs imposed a significant economic burden and we are not finalizing the BTF Hg limit for existing phosphate rock calciners.

Existing phosphate rock calciners must comply with a Hg emission limit that equals the MACT floor at 0.14 mg Hg/dscm at 3-percent O_2. The MACT floor was calculated using the upper prediction limit (UPL) methodology, which was discussed in the preamble of the proposed rule (see 79 FR 66533) and is also

discussed in the memorandums "Maximum Achievable Control Technology (MACT) Floor Analysis for Phosphate Rock Calciners at Phosphoric Acid Manufacturing Plants – Final Rule" and "Use of the Upper Prediction Limit for Calculating MACT Floors," which are available in the docket for this action. Based on the available data, the existing phosphate rock calciners would be able to comply with this limit without installing additional Hg controls.

We evaluated application of the BTF Hg limit for new phosphate rock calciners. Facilities would have time to plan for and consider the costs when determining whether to construct a new phosphate rock calciner. Additionally, sources may choose to only add one new calciner unit at a time, which would have considerably less impact than the costs associated with retrofitting all units at an existing site. Therefore, we evaluated the cost-effectiveness for installing Hg controls on a new phosphate rock calciner. Using the same cost data provided by the commenter, installing a single ACI would have capital costs of approximately $3,500,000. The annual cost ranges from approximately $720,000 (when a carbon injection rate of 5 lb/MMacf is used) to approximately $880,000 (when a carbon injection rate of 10 lb/MMacf is used). This results in Hg reductions of 24 pounds of Hg per year for a single calciner unit, assuming the new phosphate rock calciner has similar

emissions as the existing phosphate rock calciners at PCS Aurora. The resulting cost-effectiveness is estimated to be $29,800 to $36,400 per pound of Hg reduced, which we consider cost effective for new sources. This facility-level cost-effectiveness for Hg for new sources is comparable to values the EPA found to be cost effective for removal of Hg at the facility-level in other air toxics rules.[4] Consequently, new phosphate-rock calciners must comply with the BTF Hg emission limit of 0.014 mg Hg/dscm at 3-percent O_2.

ii. HF Work Practices for Phosphate Rock Calciners -- Comment.

We received comment regarding HF work practices for phosphate rock calciners. One commenter supported the HF work practices and stated they are consistent with their current phosphate rock calciner operations. Another commenter does not support the implementation of HF work practices for phosphate rock calciners. This commenter, which is considering installation of a calciner in the future, noted that preliminary results indicate a calcination temperature of at least 2,000 degrees Fahrenheit is necessary for their phosphate rock calciner. This commenter also explained they are evaluating a flash calciner,

[4] National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants (76 FR 13852); National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (76 FR 24976 and 77 FR 9304); and National Emission Standards for Hazardous Air Pollutants: Gold Mine Ore Processing and Production Area Source Category (75 FR 22470).

which operates with a much shorter retention time than the fluidized bed calciners currently in operation. The commenter argued that wet scrubbers should not be a requirement of the HF work practice because their phosphate rock calciner will be located in a remote area where treatment and disposal options for scrubber liquors may not be feasible. The commenter recommended the EPA allow for other control technologies with equivalent efficiencies.

Another commenter does not support the use of work practices for HF, and declared the EPA should set numeric emission limits for HF from phosphate rock calciners. The commenter maintained that the EPA failed to satisfy the CAA section 112(h) test it must meet to promulgate work practice standards "in lieu of" numerical emission standards. The commenter stated that not using the available emissions data to set a floor limit is unlawful and arbitrary, even if the data are below the detection limit.

Response. We are not adopting the proposed HF work practice standard for phosphate rock calciners in NESHAP subpart AA. Instead, we are adopting an emission limit for total fluoride from phosphate rock calciners. In proposing the HF work practices, we concluded that it was not feasible to prescribe or enforce an emission limit for HF due to limitations in the available EPA Method 320 HF test results (i.e., most of the

emissions data were below the method detection limit). We now have concluded, based on analysis of public comments, that it is not feasible to accurately measure HF emissions from phosphoric acid manufacturing processes using EPA Method 320 (see section V.F.3.c of this preamble for further details). However, data are available to establish an emission limit for total fluoride from phosphate rock calciners. In 2015 only one facility operates phosphate rock calciners, which are controlled by a venturi-type scrubber. In response to the April 2010 CAA section 114 request, the facility provided EPA Method 13B total fluoride emission testing results for one of their six identical phosphate rock calciners. We conclude that the total fluoride emission rate achieved by this phosphate rock calciner characterizes the emissions from all six calciners and thus this emission rate was used to determine the MACT floor for total F emissions. Therefore, for phosphate rock calciners, we are setting total F emission limits. We are also setting a work practice standard for periods of startup and shutdown in lieu of this numeric emission limit (see section V.E.3 of this preamble for further details). The use of total fluoride as a surrogate for the HAP HF is consistent with WPPA, SPA, and DAP/MAP process lines, which also have total fluoride emission limits in lieu of HF emission limits.

For the Phosphoric Acid Manufacturing source category, we have a limited dataset for the pollutant total fluoride from phosphate rock calciners. Therefore, we evaluated this specific dataset to determine whether it is appropriate to make any modifications to the UPL approach used to calculate the MACT floor. For the phosphate rock calciner dataset, we performed the following steps: We selected the data distribution that best represents the dataset; ensured that the correct equation for the distribution was then applied to the data; and compared individual components of the limited dataset to determine if the total fluoride standard based on the limited dataset reasonably represents the performance of the units included in the dataset. The results of this analysis are presented below.

The MACT floor dataset for total fluoride from new and existing phosphate rock calciners includes 3 test runs from 1 phosphate rock calciner. After determining that the dataset is best represented by a normal distribution and ensuring that we used the correct equation for the distribution, we considered the selection of a lower confidence level for determining the emission limit by evaluating whether the calculated limit reasonably represents the performance of the unit upon which it is based. In this case, the calculated emission limit is about twice the short-term average emissions from the best performing source, indicating that the emission limit is not unreasonable

compared to the actual performance of the unit upon which the limit is based and is within the range that we see when we evaluate larger datasets using our MACT floor calculation procedures. Therefore, we determined that no changes to our standard UPL floor calculation procedure are warranted for this pollutant and subcategory. We are applying the same method of calculating a total fluoride limit as we did for the Hg MACT floor calculation, for which we gave notice in the preamble to the proposed rule. Additional details and background on the MACT floor calculation are provided in the memorandums, "Maximum Achievable Control Technology (MACT) Floor Analysis for Phosphate Rock Calciners at Phosphoric Acid Manufacturing Plants – Final Rule," "Approach for Applying the Upper Prediction Limit to Limited Datasets," and "Use of the Upper Prediction Limit for Calculating MACT Floors," which are available in the docket for this action. We also evaluated BTF options for total F, but were unable to identify any cost-effective BTF technologies. Table 3 of this preamble provides the results of the new and existing phosphate rock calciner MACT floor calculations (considering variability) for total F.

Table 3. Results of the New and Existing MACT Floor Calculations for Total Fluoride from Phosphate Rock Calciners at Phosphoric Acid Manufacturing Facilities

Pollutant	Results	Units
Total fluoride (for new and existing sources)	9.0E-04	lb/ton of rock feed

b. Gypsum Dewatering Stack and Cooling Pond Work Practices --

i. Ratio of Gypsum Dewatering Stack Area to Phosphoric Acid Manufacturing Capacity -- Comment. Several commenters requested that the EPA either reconsider, withdraw, or eliminate the proposed gypsum dewatering stack area limitation of 80 acres per 100,000 tpy capacity (in equivalent P_2O_5 feed). Commenters claimed the use of flawed data and assumptions in the EPA's analysis in the following areas: (1) Ambiguous definitions of a "gypsum dewatering stack," and "new" and "existing" stacks; (2) inaccurate or outdated data on acreage of existing stacks and production capacity, stack closures, and plans for new stacks; (3) flawed or missing rationale and correlation between the gypsum dewatering stack area and phosphoric acid manufacturing capacity; (4) no technical or legal basis for the selection of the 80-acre cutoff; (5) no consideration given to site-specific variables that influence the acreage of gypsum dewatering stacks; and (6) failure to consider impacts from closing an existing stack prior to commissioning a new stack.

These commenters claimed the term "gypsum dewatering stack" is so broadly and ambiguously defined they are unable to determine the scope and impact of the proposed area limitation of 80 acres per 100,000 tpy capacity, or how the proposed limitation would be applied to facilities. They claimed the EPA's definition includes a wide array of features that have

never before been considered part of the gypsum dewatering stack (e.g., pumps, piping, all collection and conveyance systems associated with gypsum to the stack and process wastewater return to the plant). Commenters argued that the EPA underestimated stack acreage used in the analysis and that the estimates should be much larger when the "total system" acreage is used. These commenters stated that using the "total system" acreage in the analysis demonstrates that the EPA significantly underestimated the number of acres at each facility that would need to be closed. One of these commenters asked whether a vertical expansion of an existing stack would be considered a "new" facility, and how the proposed work practice might be evaluated for compliance when surfaces of a "closed" facility might be overlapped by an immediately-adjacent "new" facility.

Additionally, commenters argued that the EPA's technical rationale for limiting stack area was based on an arbitrary correlation with production capacity. One of these commenters said there is no relationship between gypsum dewatering stack area and phosphoric acid manufacturing capacity, and that outliers were removed from the analysis further confirming no quantitative relationship between stack area and facility capacity. This commenter also asserted that limiting the size of the gypsum dewatering stacks is not proven to limit HF emissions.

Furthermore, two commenters claimed the 80-acre limit does not consider an evaluation of water balance and process water cooling needs for individual facilities. These commenters pointed out that a flat area does not require as large of a footprint for its gypsum dewatering stacks as compared to an area with large topographic relief. One of these commenters provided examples of two gypsum dewatering stacks located in mountainous areas that require larger footprints to construct ponds due to longer runs of pipe, roads, and dike.

Finally, one commenter claimed that an updated acreage-based analysis would need to account for the transition period between a stack becoming "inactive" and the point in time of "closure" so as not to exceed the acreage limit while constructing a new stack. Another commenter stated that the startup of a gypsum dewatering stack is a lengthy process that may take more than a year, and that the "ratio" requirement inaccurately assumes simultaneous closure of an old stack with the opening (i.e., new construction) of a new stack. Another commenter also contended that construction and closure take years to complete and occur simultaneously, and that closing a gypsum dewatering stack before beginning construction on a new stack would require an entire companion production facility to be idled for an extended period and impose "enormous direct and

lost opportunity costs…such costs and plant idling are not justified."

Response. We agree with commenters that the proposed definition of "gypsum dewatering stack" is too broad. As we stated in the preamble to the proposed rule, we intended the proposed ratio limit to apply to only the "footprint acreage" of the gypsum dewatering stacks, which was deliberately meant to exclude the areas where many supplementary processes (such as pumps, piping, ditches, drainage conveyances, water control structures, collection pools, cooling ponds, surge ponds, auxiliary holding ponds, and any other collection or conveyance system) are located. Therefore, we did not underestimate stack acreage used in the gypsum dewatering stack area limitation analysis, nor did we underestimate the number of acres at each facility that would need to be closed. However, in an effort to clarify the specific emission source that we are regulating in the final rule (NESHAP subpart AA), we have included a new term, "gypsum dewatering stack system," and revised the definition of "gypsum dewatering stack" in the final rule. We are finalizing "gypsum dewatering stack system" to mean "the gypsum dewatering stack, together with all pumps, piping, ditches, drainage conveyances, water control structures, collection pools, cooling ponds, surge ponds, auxiliary holding ponds, regional holding ponds and any other collection or conveyance system associated

with the transport of gypsum from the plant to the gypsum dewatering stack, its management at the gypsum dewatering stack, and the process wastewater return to the phosphoric acid production or other process." We are finalizing "gypsum dewatering stack" to mean "any defined geographic area associated with a phosphoric acid manufacturing plant in which gypsum is disposed of or stored, other than within a fully enclosed building, container, or tank." This revised definition of "gypsum dewatering stack" is based on Florida Administrative Rule 62-273.200 which regulates phosphogypsum management, and clearly includes any gypsum disposal pile, as well as the associated gypsum pond (which is also known as a settling pond, used to deposit the gypsum slurry, and is often located in the middle of the gypsum disposal pile), but does not include separate cooling ponds (for which we have retained the proposed definition of "cooling pond" in the NESHAP subpart AA final rule).

Nevertheless, in light of other concerns raised by commenters, we are not adopting the proposed work practice that limits the size of active gypsum dewatering stacks, which would have been applicable to facilities when new gypsum dewatering stacks are constructed.

As we stated in the preamble to the proposed rule, we did not detect a correlation between gypsum stack dewatering area

and phosphoric acid manufacturing capacity; however, we proposed the size limit because we believe that reducing the gypsum dewatering stack area is directly related to reducing HF emissions. We also believed that phosphoric acid manufacturing capacity was related to the size of gypsum dewatering stacks and that it was operationally appropriate to allow large facilities to build larger gypsum dewatering stacks, while limiting smaller facilities to building a proportionally smaller gypsum dewatering stack. However, we have now concluded, based on analysis of public comments and other supplemental information provided, that it is not feasible to require facilities to close gypsum dewatering stacks based on a ratio of total active gypsum dewatering stack area (i.e., sum of the footprint acreage of all active gypsum dewatering stacks combined) to annual phosphoric acid manufacturing capacity. As commenters stated, the gypsum dewatering stack acreage does not relate to production capacity and, importantly, gypsum dewatering stack development must be considered in light of the operations of the entire facility. Factors that affect the size and development of gypsum dewatering stacks include: (1) The availability and topography of land near the facility; (2) facilities generate a substantial amount of gypsum waste in the phosphoric acid manufacturing process; (3) managing the gypsum waste that is generated is an important operating principle for all facilities (regardless of

phosphoric acid production capacity); and (4) limiting the gypsum dewatering stack acreage or changing the way facilities build gypsum dewatering stacks could have a detrimental impact on a facility's operations. Additionally, we agree with commenters that closure of a gypsum dewatering stack does not happen immediately, but rather requires a transitional period that can take years to complete. During this transitional period, a new stack is begun, but it may be years before it is fully operational and can receive all gypsum and slurry from the facility. This transitional period would make it difficult, if not impossible, for a facility to comply with the proposed work practice that limits the size of active gypsum dewatering stacks because the proposed size limit assumed immediate closure. Since closure does not happen immediately, and there is no correlation between dewatering stack acreage and phosphoric acid production, we are not adopting the proposed work practice that limits the size of active gypsum dewatering stacks.

We are removing the definition of "closed gypsum dewatering stack," and revising the definition of "active gypsum dewatering stack," as well as the definitions for when a gypsum dewatering stack is considered "new" or "existing" (see sections V.C.3.b.ii and V.C.3.b.iii of this preamble for further details).

ii. Necessity or Justification of Work Practice Standards for Fugitive HF Emissions -- Comment. Numerous commenters claimed

that there is insufficient technical analysis as to the feasibility and effectiveness of the control techniques that were proposed as options (as part of a work practice standard in the form of a management plan) for controlling fugitive HF emissions from gypsum dewatering stacks and cooling ponds. One of these commenters supported the EPA's claim that emissions from gypsum dewatering stacks and cooling ponds would inherently constitute fugitive emissions, and that conceptually, a work practice standard is a reasonable approach to emissions control; however, they challenged the technical basis for the specific control techniques listed in the proposed management plan. Commenters contended that the proposed control techniques have not been demonstrated to have an effect on fugitive HF emissions, and stated the EPA did not quantify the expected reductions in HF emissions resulting from the proposed work practice standard for gypsum dewatering stacks and cooling ponds. A commenter noted that some of the control techniques were derived from their facility's title V permit and that the EPA needed to recognize that (a) it is not clear (with a couple of exceptions) that these control techniques provide any significant emission reductions; (b) recent information may not support these control techniques providing emission reductions; and (c) there is considerable uncertainty in the emissions associated with cooling ponds and gypsum dewatering stacks.

Another commenter argued that the EPA must justify the control techniques and show that they are not only technically effective, but also cost-effective and achievable within the industry. Commenters asserted that only two sources of information were used by the EPA in its determination of the control techniques that were proposed as options for controlling fugitive HF emissions in the proposed gypsum dewatering stack and cooling pond management plan. Commenters also noted that there is a large amount of uncertainty related to which specific control techniques are feasible and effective in reducing fugitive HF emissions. The following paragraphs provide a summary of the comments that the Agency received on each specific control technique.

Three commenters opposed the use of submerged discharge pipes and siphon breaks below the surface of the cooling pond as a fugitive HF emissions control technique. They claimed that submerging cooling pond discharge lines for above-grade ponds would create a significant risk for a siphon effect to occur when a pumping system is shutdown, causing backpressure on the pump seals back down the line, and, thus, defeating the purpose of the siphon break. One of these commenters added that submerging siphon breaks will impede the ability of these devices to prevent backflow because submersion may interfere

with the atmospheric connection needed to make siphon breaks operate properly.

One commenter stated that although they use a rim ditch (cell) building technique, it is not an appropriate work practice for reducing HF emissions, and mentioned that the EPA does not provide data or an explanation of the linkage between minimizing the gypsum dewatering stack surface area and reducing emissions. This commenter suggested that the EPA define the technique as "a gypsum stack building technique where gypsum slurry is deposited along the stack perimeter with flow directed along a ditch before the liquid flow is conveyed to the settling compartments." Another commenter stated that minimizing the gypsum pond surface areas is not feasible in Florida, North Carolina, and Louisiana because gypsum pond surface areas are optimized to provide annual evaporative water losses necessary to maintain zero water discharge.

Several commenters also objected to the wetting of the active gypsum dewatering stack as a fugitive HF emissions control technique because the technique may be infeasible and counter-productive due to water balance issues at nearly every affected facility. One commenter argued that applying fresh water is not feasible (i.e., water trucks are not feasible or safe; irrigation in the West is not feasible; pipes are at risk of freezing) and another commenter stated that using recycled

water may actually increase fugitive emissions because HF resides primarily in residual and make-up waters used to transport the gypsum slurry to the gypsum dewatering stack. One commenter contended that determining hot or dry periods is too subjective; therefore, it would be difficult to know when the control technique would apply. Another commenter illustrated the uncertainty of wetting of the active gypsum dewatering stack as a fugitive HF emissions control technique by identifying two studies with contradicting conclusions (one concluded that most HF is emitted from aqueous surfaces and trends with solar radiation, and the other study concluded that drying gypsum is a major source of ambient fluoride emissions from gypsum storage areas).

One commenter challenged the EPA's lack of evidence on the effectiveness of applying slaked lime to gypsum dewatering stacks as a fugitive HF emissions control technique, and claimed that it would not be feasible, referring to rain as threat to eliminate the potential for effectiveness. On the contrary, another commenter described how they apply a lime solution on top of reachable drying gypsum stack areas, and that the reaction of fluoride with slaked lime does result in the "tie-up" of volatile F, although they are not aware of any studies that have measured or quantified reductions.

In addition, commenters also claimed that enormous costs would be associated with the fugitive HF emissions control technique requiring facilities to apply soil caps and vegetation to all side slopes of the active gypsum dewatering stack up to 50 feet below the stack top. Some of these commenters mentioned that there are state rules that require soil caps and side vegetation on side slopes for erosion/water impact control, but not for the purpose of fugitive HF emissions control.

Furthermore, commenters requested that the closure of a gypsum dewatering stack not be considered a fugitive HF emissions control technique. One commenter contended that the EPA should allow the final cover on a closed stack to consist of a synthetic liner, as this would achieve the same purpose as a vegetative liner and may be more appropriate in some instances. Another commenter explained that some states and the EPA have closure requirements under Resource Conservation and Recovery Act (RCRA), including, for example, requirements for long term care practices (beyond 20-50 years); shaping and configuration of gypsum dewatering stacks; site security. They suggested that due to these detailed requirements, it would be best to defer to stack closure requirements within other regulations and not have NESHAP requirements that involve or require stack closure.

Finally, commenters requested that if the EPA proceeds with a final rule that includes work practices for reducing fugitive

HF emissions from gypsum dewatering stacks or cooling ponds, the work practices should include a flexibility mechanism for facilities to use additional practices not codified during this rulemaking. One commenter asserted that work practice standards that might commonly be practicable for other industries are not universally practicable (or legally permissible) throughout the phosphoric acid and phosphate fertilizer industries, and some practices might be appropriate for some facilities, but not others (depending on location, climate, etc.).

Response. We are adopting the proposed work practice standard that requires owners or operators to prepare, and operate in accordance with a gypsum dewatering stack and cooling pond management plan; however, based on analysis of public comments, we are making some changes to the specific control measures that we proposed as options in the plan for controlling fugitive HF emissions. In the final rule, the Agency is using the terminology “control measures” in lieu of the proposed terminology “control techniques” because it more accurately describes the list of options in the rule and avoids confusion with other CAA programs. We are finalizing standards that will reduce HAP emissions from gypsum dewatering stacks and cooling ponds because, as explained in the preamble to the proposed rule, the 1999 Phosphoric Acid Manufacturing NESHAP (i.e., NESHAP subpart AA) did not regulate fugitive HF emissions from

gypsum dewatering stacks or cooling ponds. As explained in the preamble to the proposed rule, we are adopting a work practice standard instead of numeric emission limits because it is "not feasible to prescribe or enforce an emission standard" for these emissions because they "cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant" (see CAA section 112(h)(2)(A)) as the several hundred acres average size of these emission sources makes conveyance impractical. The size of these emission sources also makes it difficult to quantify the emission reductions that any control measure employed will achieve. However, in the paragraphs below, we explain how each control measure is feasible and effective in reducing fugitive HF emissions. We also provide details on the changes we have made to the gypsum dewatering stack and cooling pond management plan since proposal. Even after these changes, the measures are consistent with CAA section 112(d) controls and reflect a level of performance analogous to a MACT floor.

We noted in the preamble to the proposed rule that we believe that it is most effective for sources to determine the best practices that are to be incorporated into their site-specific gypsum dewatering stack and cooling pond management plan. We also stated in the preamble to the proposed rule that sources would be required to incorporate control measures from the list of options being proposed, and we solicited comment on

the proposed site-specific gypsum dewatering stack and cooling pond management plan. In addition, we made considerable effort[5] before and after proposal in identifying a list of control measure options that encompass enough variety that at least one control measure option is feasible for at least one of each facility's existing gypsum dewatering stacks and/or cooling ponds. In fact, we are not aware of any facility that does not use a rim ditch (cell) building technique. Therefore, we disagree with commenters that the options we have listed for the gypsum dewatering stack and cooling pond management plan are not technically feasible.

Additionally, personnel from the Florida Department of Environmental Protection (DEP) had concerns regarding how the plan would be implemented, as well as how a facility would show compliance with the control measure it chooses (see "Notes from Meeting with Florida DEP Regarding Gypsum Dewatering Stack and Cooling Pond Management Plan, March 4, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522). Therefore, in an effort to improve compliance demonstration with a facility's site-

[5] See the following documents which are all available in Docket ID No. EPA-HQ-OAR-2012-0522): "USEPA Meeting with The Fertilizer Institute, July 24, 2013"; "TFI meeting with USEPA to discuss RTR for Phosphoric Acid and Phosphate Fertilizer NESHAPs, September 11, 2014"; "EPA Meeting Minutes for TFI Discussion March 12, 2015"; "Summary of Potential Costs for Implementing Phosphate NESHAPs/Recommendations for Phosphogypsum Stack Work Practices, May 5, 2015"; "Notes from Meeting with Florida DEP Regarding Gypsum Dewatering Stack and Cooling Pond Management Plan, March 4, 2015"; and "Site Visits to Mosaic Plant City and Mosaic New Wales, March 4, 2015."

specific gypsum dewatering stack and cooling pond management plan, we are including a condition in the final NESHAP subpart AA rule that requires facilities to submit their plan for approval to the Administrator. Facilities will be required to provide details on how they plan to implement and show compliance with the control measure(s) that they choose. The Administrator will approve or disapprove the facility's site-specific gypsum dewatering stack and cooling pond management plan within 90 days after it is received. There may be a benefit to facilities and permitting authorities for the gypsum dewatering stack and cooling pond management plan and the title V major modification application to be submitted and reviewed at the same time. To change any of the information submitted in the plan, the facility must submit a revised plan 60 days before the change is to be implemented in order to allow time for review and approval by the Administrator before the change is implemented.

We are not including an option in the NESHAP subpart AA final rule, as commenters requested, that would provide a flexibility mechanism for facilities to use additional practices not codified during this rulemaking. This type of flexibility does not provide regulatory certainty that is needed for both industry and the EPA.

Although some commenters opposed using a submerged discharge pipe (with necessary siphon breaks to a level below the surface of the pond) as a fugitive HF emissions control measure, we believe submerging a discharge pipe can be appropriate and effective for reducing emissions from process water discharges into a cooling pond, although some facilities may not choose this option. Moreover, we agree with commenters that submerging siphon breaks could impede the ability of these devices to prevent backflow; therefore, we are removing this requirement from the final rule. On a recent site visit (see "Site Visits to Mosaic Plant City and Mosaic New Wales, March 4, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), we noted strong vapor odors coming from splash operations occurring at a non-submerged pipe that was discharging process water into a cooling pond. According to AP-42, Chapter 5.2 – Transportation and Marketing of Petroleum Liquids (01/95), significant turbulence and vapor/liquid contact that occur during splash discharge operations will result in higher levels of vapor generation and emissions loss compared to using a submerged discharge operation. Liquid turbulence is controlled significantly during submerged discharge operations, resulting in much lower vapor generation than encountered during splash discharge operations. We believe this demonstrates that submerging the pipe is an effective technique for mitigating HF

emissions, and we are therefore retaining this option for cooling ponds.

However, we are removing the option of submerging a discharge pipe that is associated with the gypsum pond because it is not a feasible option due to high solids volume in the slurry. (A gypsum pond, also called a settling pond, often is located in the middle of a gypsum disposal pile and receives waste gypsum slurry.) Based on information received from industry after the public comment period ended for the proposal (see Docket ID No. EPA-HQ-OAR-2012-0522-0048), it is much more likely for this particular pipe to become clogged, creating backpressure on pump seals. Submerging the discharge pipe under water in the gypsum pond creates a potential restriction against the discharging slurry that could get worse as solids build up around and against the end of the pipe. The discharge pipe for the gypsum pond is also routinely moved, which complicates submersing it.

As we stated earlier in our response, we are not aware of any facility that uses a gypsum dewatering stack building technique that is different from rim ditch (cell) building. With regard to commenters' assertions that the EPA did not provide data or explain the link between minimizing the gypsum dewatering stack surface area and reducing fugitive HF emissions, we believe that using the rim ditch technique over

the lifespan of a gypsum dewatering stack will reduce the surface area of the gypsum pond and thereby reduce fugitive HF emissions. Fugitive HF emissions are calculated using an emission factor that is directly related to the total acreage from the gypsum dewatering stack, which includes the pond surface area (tons HF per acre per year); therefore, minimizing the pond surface area would minimize HF emissions. The rim ditch (cell) building technique is mainly used for gypsum dewatering stack stability since inner and outer dikes are used to create a rim ditch that provides better protection against overflow of the gypsum pond. However, as rim ditches are filled with slurry, the gypsum pond area will gradually decrease within each cell, thereby shrinking the amount of surface area of the pond that is exposed to the atmosphere (reducing the amount of fugitive HF emissions). An alternative to the rim ditch technique is to simply discharge gypsum slurry into the gypsum pond. With this technique, there is no inner dike to control slurry flow and the pond surface area would not be reduced as quickly or consistently. This increased surface area would allow greater potential for fugitive HF emissions due to the larger amount of surface water exposed to the atmosphere. We are revising this control measure option in the NESHAP subpart AA final rule to clarify that owners or operators must minimize the surface area of the gypsum pond associated with the active gypsum dewatering

stack (and not the surface area of the active gypsum dewatering stack as we had proposed) by using a rim ditch (cell) building technique or other building technique. This clarification also addresses industry's suggestion to reword the control measure in response to a meeting that occurred after the public comment period closed (see "EPA Meeting Minutes for TFI Discussion March 12, 2015," and "Summary of Potential Costs for Implementing Phosphate NESHAPs/Recommendations for Phosphogypsum Stack Work Practices, May 5, 2015," which are both available in Docket ID No. EPA-HQ-OAR-2012-0522). Moreover, in this same correspondence that occurred after the public comment period closed, industry provided a suggestion for the definition of "rim ditch." We agree with industry's suggested definition; however, we believe the definition more appropriately covers the meaning of "rim ditch (cell) building technique" and not just "rim ditch." We are including this definition in the final rule for "rim ditch (cell) building technique" in an effort to clarify what we mean by this control measure. The final rule defines "rim ditch (cell) building technique" as a gypsum dewatering stack construction technique that utilizes inner and outer dikes to direct gypsum slurry flow around the perimeter of the stack before directing the flow and allowing settling of finer materials into the settling compartment. For the purpose of this definition, the rim ditch (cell) building technique includes the

compartment startup phase when gypsum is deposited directly into the settling compartment in preparation for ditch construction, as well as the step-in or terminal phases when most solids must be directed to the settling compartment prior to stack closure. Decant return ditches are not rim ditches.

Based on commenters' objection to wetting active gypsum dewatering stacks as a fugitive HF emissions control measure, and additional discussion with industry (see "EPA Meeting Minutes for Simplot Discussion April 1, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), we determined that the proposed rule was not clear on how this control measure would be used. This control measure is not applied to the side slopes of the gypsum dewatering stacks, and instead is used on certain gypsum areas within cells of a gypsum dewatering stack. According to one facility located in arid climate (see "EPA Meeting Minutes for Simplot Discussion April 1, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), these areas may be more susceptible to drying out in warmer months due to higher surface temperatures of the gypsum dewatering stack; therefore, a system of weirs can be used to help direct gypsum pond water (not fresh water) to these areas to keep them wet. We agree with the commenter who pointed out that that applying water to a gypsum stack may actually increase fugitive emissions because HF resides primarily in the water used to transport the

gypsum slurry to the gypsum dewatering stack. We realize that this option might increase the surface area of the gypsum pond water which conflicts with our understanding that minimizing surface area of the gypsum pond will minimize HF emissions. Therefore, we are not adopting this proposed control measure in the NESHAP subpart AA final rule.

In response to a commenter's assertion that there is lack of evidence of the effectiveness of applying slaked lime to gypsum dewatering stacks as a fugitive HF emissions control measure, we received information after the public comment period ended (see Docket ID No. EPA-HQ-OAR-2012-0522-0048) that at least one facility uses this technique to help meet its state ambient air standard for F. This commenter stated that, based on data from their site-specific ambient air monitoring, they apply a lime solution to their gypsum dewatering stack areas during periods where they are close to violating their 30-day state ambient air standard for F, measured as HF, in order to stay below the standard. Slaked lime can precipitate fluorides from gypsum dewatering stacks and cooling ponds, thus reducing the availability of fluorides in solution that could then be released into the air during evaporation. This is an example of the type of detail that the Administrator may require be included in the facility's site-specific plan (in addition to how compliance would be demonstrated) before it could be

approved. We have clarified in the final rule that if this control measure is chosen, then the plan must include the method used to determine the specific locations slaked lime is applied. The plan must also include the methods used to determine the quantity of, and when to apply, slaked lime (e.g., slaked lime may be applied to achieve a state ambient air standard for F, measured as HF).

With respect to the measure involving application of soil caps and vegetation to side slopes of a gypsum dewatering stack, on recent site, visits personnel from Mosaic and the Florida DEP had concerns that this control measure was too specific in that it could be difficult for facilities to demonstrate compliance with the "50 feet below the stack top" requirement as well as the requirement to apply soil caps and vegetation to all side slopes (see "Site Visits to Mosaic Plant City and Mosaic New Wales, March 4, 2015," and "Notes from Meeting with Florida DEP Regarding Gypsum Dewatering Stack and Cooling Pond Management Plan, March 4, 2015," which are available in Docket ID No. EPA-HQ-OAR-2012-0522). We recognize that applying soil caps and vegetation to side slopes of a gypsum dewatering stack is an ongoing process that continuously changes over time based on facility-specific operations. Therefore, we have revised this control measure option in the NESHAP subpart AA final rule to acknowledge that this technique will only be applied to portions

of the side slopes that are no longer active on a gypsum dewatering stack instead of all side slopes up to 50 feet below the top of the gypsum dewatering stack. We also have revised this option to allow the use of a synthetic cover in lieu of soil caps and vegetation. Furthermore, we expect that if a facility chose to use this specific control measure in their plan, the Administrator may require details on schedule, and how the portion of side slopes that received soil caps and vegetation, or a synthetic cover, is determined (in addition to how compliance would be demonstrated), before the plan could be approved. Therefore, we have clarified in the final rule that the plan must include the method used to determine the specific locations of soil caps and vegetation, or synthetic cover, and specify the acreage and locations where soil caps and vegetation, or synthetic cover, is applied. The plan must also include a schedule describing when soil caps and vegetation, or synthetic cover, is to be applied.

Additionally, we believe that this control measure creates a barrier on the surface of the gypsum dewatering stack side slopes that reduces HF emissions; therefore, we disagree with commenters' assertion that applying soil caps and vegetation may not be an effective option for fugitive HF emissions control. The Florida DEP has used this control measure as part of its overall management of fluorides from gypsum dewatering stacks;

and Wyoming has approved this control measure in a facility's title V permit as an optional method for reducing fugitive fluoride emissions. We also disagree with a request[6] to reword this control measure to require a gypsum dewatering stack construction and operation plan because the commenter did not provide any justification on how this activity reduces fugitive HF emissions from gypsum dewatering stacks.

We disagree with commenters' requests to exclude closure from the list of measures for controlling fugitive HF emissions from gypsum dewatering stacks. We believe that closing a gypsum dewatering stack is one of the best solutions for reducing fugitive HF emissions because it permanently reduces the emissions from the greatest contributing source. However, we are revising this control measure option in the NESHAP subpart AA final rule to allow a facility to design its own closure requirement plan, provided that the closure requirements, at a minimum, contain: (1) A specific trigger mechanism for when owners or operators must begin the closure process on the gypsum dewatering stack, and (2) a requirement to install a final cover. As with all gypsum dewatering stack and cooling pond management plans, this closure requirement must be submitted to

[6] See "EPA Meeting Minutes for TFI Discussion March 12, 2015," and "Summary of Potential Costs for Implementing Phosphate NESHAPs/Recommendations for Phosphogypsum Stack Work Practices, May 5, 2015," which are both available in Docket ID No. EPA-HQ-OAR-2012-0522.

the Agency for approval. Although we are not identifying a specific trigger mechanism in the final rule, one example of a trigger mechanism is a facility-specified length of time where the gypsum dewatering stack is inactive and no longer receives gypsum (i.e., once the gypsum dewatering stack stops receiving gypsum for a period of time, the facility must begin closing it). Also, we are clarifying that a final cover means the materials used to cover the top and sides of a gypsum dewatering stack upon closure. This addresses commenters request that the EPA should allow the final cover on a closed stack to consist of a synthetic liner. Finally, in light of our decision to revise the control measure option for closing a gypsum dewatering stack, we are also removing the definition of a "closed gypsum dewatering stack" from the NESHAP subpart AA final rule. Since the revised language relies on a specific trigger mechanism for when owners or operators must begin the closure process on the gypsum dewatering stack, the definition of a "closed gypsum dewatering stack" is no longer necessary in the final rule. Because we are removing the definition of a "closed gypsum dewatering stack" from the final rule, we are revising the definition of an "active gypsum dewatering stack." In the NESHAP subpart AA final rule, an "active gypsum dewatering stack" means a gypsum dewatering stack that is currently receiving gypsum, received gypsum within the last year, or is part of the

facility's water management system. A gypsum dewatering stack that is considered closed by a state authority is not considered an active gypsum dewatering stack.

As we have stated before, the final list of NESHAP subpart AA control measures is exhaustive enough that a facility has a number of options for selecting a control measure that would be feasible for their particular operations. We assume that facilities would choose the lowest cost option, and that all facilities are using at least one of the control measure options already (e.g., we are not aware of any facilities that do not use a rim ditch (cell) building technique). Therefore, we disagree with the commenters' claim that enormous costs would be incurred if they were required to apply soil caps and vegetation to all side slopes of the active gypsum dewatering stack up to 50 feet below the stack top. We are not requiring that facilities implement this control measure since this specific control technique is not a requirement, but instead an option for how a facility may demonstrate compliance with the work practice standards for fugitive HF emissions from the gypsum management system.

iii. Requirement to Use At Least Two of the Fugitive HF Emissions Control Measures -- Comment. One commenter requested that the EPA eliminate the "dual practice" approach for new sources. Two commenters declared that the requirement to

implement "at least two of the control techniques" listed for "each regulated gypsum dewatering stack and cooling pond" is not possible without a broader list that includes at least two practices for cooling ponds. Additionally, with regard to closing an active gypsum dewatering stack as a control technique option, the commenter contended that giving an owner of a new gypsum dewatering stack the option of closing it in tandem with a mandatory second control technique is "nonsensical" because the "new stack would immediately have to be closed to implement the practice." Another commenter wanted clarification as to whether the lateral expansion of an existing gypsum dewatering stack is considered a new stack, and thus would trigger the proposed work practice standards related to the size of active gypsum dewatering stacks and production ratio. The commenter also sought clarification as to whether at least two of the control techniques be used in the gypsum dewatering stack and cooling pond management plan for controlling fugitive HF emissions would be required.

Response. We agree with the commenter that the proposed requirement for new gypsum dewatering stacks and cooling ponds to implement "at least two of the control techniques" listed for "each" regulated "gypsum dewatering stack and cooling pond," would make compliance for cooling ponds impossible for new sources without a broader list with at least two control

measures for cooling ponds. In the final rule, the Agency is using the terminology “control measures” in lieu of the proposed terminology “control techniques” because it more accurately describes the list of options in the rule and avoids confusion with other CAA programs. As stated in a previous response, in an effort to clarify the specific emission source that we are regulating in the final rule (NESHAP subpart AA), we have included a new term, “gypsum dewatering stack system,” (see sections V.C.3.b.i of this preamble for further details) in the final rule. This revision also clarifies our original intent that the two control measure options that a facility selects can be for any combination of gypsum dewatering stacks and/or cooling ponds in the gypsum dewatering stack system. For example, if a facility operates a cooling pond considered a new source, the facility may choose to not implement the control measure option requiring a submerged discharge pipe for the new cooling pond, and instead implement two control measures at one or more gypsum dewatering stacks no matter whether they be considered a new or existing source. Furthermore, we have revised the control measure option for closing a gypsum dewatering stack (see section V.C.3.b.ii of this preamble for further details). Because of this change to the NESHAP subpart AA final rule, there is no longer a requirement to immediately

close the active gypsum dewatering stack in tandem with a mandatory second control measure option.

Lastly, the Agency has revised the definitions in the NESHAP subpart AA final rule for when a gypsum dewatering stack is considered "new" or "existing" in order to address whether a lateral expansion of an existing gypsum dewatering stack is considered a new gypsum dewatering stack. The revised definitions in the final rule also deal with a concern one commenter raised during the comment period about triggering the proposed regulation for a "new" source each time they rotate the functionality of their three gypsum dewatering stack sites at their facility (this topic was also discussed after the comment period closed, see "USEPA Meeting Minutes for PCS Aurora Discussion (2.2.2015)," which is available in Docket ID No. EPA-HQ-OAR-2012-0522). We are revising the NESHAP subpart AA final rule such that a gypsum dewatering stack or cooling pond is considered "new" if it meets two criteria: (1) It was constructed or reconstructed after [**insert date of publication in the Federal Register**], and (2) it was required to obtain a permit by a state authority for the construction or reconstruction. Some lateral expansions may build beyond a facility's existing permitted capacity (and design dimensions of the gypsum dewatering stack); therefore, these lateral expansions would be considered "new" in the final rule because

the facility would be required to obtain (or revise) their existing permitted capacity (and design dimensions). Because of this change in the NESHAP subpart AA final rule, we are also revising the criteria for when a gypsum dewatering stack or cooling pond is considered "existing." Specifically, a gypsum dewatering stack or cooling pond is considered "existing" if it meets one of two criteria: (1) It was constructed or reconstructed on or before [**insert date of publication in the Federal Register**], or (2) it was constructed or reconstructed after [**insert date of publication in the Federal Register**] and it was not required to obtain a permit by a state authority for the construction or reconstruction.

iv. Fugitive HF Emissions Control Measure Considerations for Cooling Ponds -- Comment. One commenter referenced a 1978 EPA document: "Evaluation of Emissions and Control Techniques for Reducing Fluoride Emissions from Gypsum Ponds in the Phosphoric Acid Industry" and questioned why the EPA proposed work practice standards focused solely on gypsum dewatering stacks, while the EPA has in the past studied and documented more work practices for controls of cooling pond emissions, which are not discussed as alternatives to the proposed rule. Another commenter requested that if EPA keeps cooling ponds as part of the gypsum dewatering stack and cooling pond management plan, then EPA should provide more than one work practice that could be

implemented at a cooling pond. They suggested that EPA add a control measure option (for cooling ponds) that would require developing a plan to optimize the size of cooling ponds to address fugitive HF emissions (as appropriate based on the conditions at the facility).

In addition, another commenter suggested additional control measure options for reducing fugitive HF emissions from cooling ponds. This commenter suggested EPA include an option to develop and implement a plan for dredging cooling ponds which helps maintain cooling capacity, and, therefore, can reduce fugitive emissions by reducing the vapor pressure of fluoride in the pond water. This commenter also suggested EPA include an option to implement a system for the recovery of fluoride for water that is directed to cooling ponds. The commenter pointed out that one of its facilities has the capability to recover fluoride as hydrofluorosilicic acid during the phosphoric acid evaporation process. The commenter stated that this recovery process is operated as needed to meet the market demand for hydrofluorosilicic acid. Finally, the commenter suggested EPA include an option to implement a system for the removal of fluoride for water that is directed to cooling ponds (for example, by adding lime to increase the pH).

Response. We are aware of the 1978 EPA document, "Evaluation of Emissions and Control Techniques for Reducing

Fluoride Emissions from Gypsum Ponds in the Phosphoric Acid Industry," and the six potential control techniques it examines for reducing fluoride emissions from gypsum ponds. These six potential control techniques include: (1) Use of the "Kidde" process; (2) use of the "Swift" process; (3) use of lime to raise pH; (4) dry conveyance of gypsum, (5) pretreatment of ore by calcining; and (6) changing the entire phosphoric acid production process to a "hemi/dehydrate" process. The 1978 EPA document clarifies that the first four of these potential control techniques could also reduce fluoride emissions from cooling ponds. The "Swift," "Kidde," and "hemi/dehydrate" processes each use byproduct fluoride in the WPPA to produce hydrofluorosilicic acid (an acid generally used in fluoridation of drinking water, but also has other industry uses) or ammonium silicofluoride. We are aware of at least two facilities that are equipped and capable of making hydrofluorosilicic acid; however, it is not clear which process they use, nor is it clear if either facility is actively making hydrofluorosilicic acid. However, facilities have expressed that production of hydrofluorosilicic acid for the primary purpose of controlling HF emissions is not practical. Facilities that produce hydrofluorosilicic acid seek to sell the product for use in

water fluoridation.[7] In fact, one commenter stated that their recovery process is operated as needed to meet the market demand for hydrofluorosilicic acid. Facilities would not produce this product in the absence of a market demand, as the hydrofluorosilicic acid would be another waste stream that would need to be disposed of. Therefore, we do not believe this to be a reasonable control technique option for fugitive HF emissions from these sources.

We have determined that using lime (or any other caustic substance) to raise the pH of liquid discharged into the cooling pond could be a feasible control measure option for reducing fluoride emissions from cooling ponds; therefore, we are including this option in the NESHAP subpart AA final rule. The control measure option simultaneously raises the pH of the cooling pond water and lowers the concentration of soluble F, and, thus reducing the concentration of fluoride (including HF) that could be potentially evaporated into the atmosphere. Based on information provided in the 1978 EPA document, a greater than 90 percent emission reduction in fluoride can be achieved by raising the pond water from pH 1.4 to pH 3.9. In the final rule, if this control measure is chosen, then the plan must include: the method used to raise the pH of the liquid discharged into

[7] http://www.cdc.gov/fluoridation/factsheets/engineering/wfadditives.htm.

the cooling pond, the target pH value (of the liquid discharged into the cooling pond) expected to be achieved by using the method, and the analyses used to determine and support the raise in pH. Moreover, this control measure is similar to an option that industry suggested in response to a meeting that occurred after the public comment period closed (see "EPA Meeting Minutes for TFI Discussion March 12, 2015," and "Summary of Potential Costs for Implementing Phosphate NESHAPs/Recommendations for Phosphogypsum Stack Work Practices, May 5, 2015," which are both available in Docket ID No. EPA-HQ-OAR-2012-0522). Industry suggested including an option that would require providing inputs to the gypsum dewatering stack system to react with and precipitate fluoride compounds to insoluble forms.

With regard to the remaining potential control techniques identified in the 1978 EPA document (i.e., dry conveyance of gypsum and pretreatment of ore by calcining), we have determined that these control techniques are not likely to be used by industry because significant process changes would be required. Furthermore, with regard to pretreatment of ore by calcining, the 1978 EPA document states that off-gases from pretreating ore would still need to be scrubbed to remove F, and the scrubbing liquid from this process would likely be disposed of in a cooling pond (which would defeat the purpose of this technique). Therefore, we are not finalizing the NESHAP subpart AA final

rule to include these two control measure options for controlling fugitive HF emissions from cooling ponds.

Lastly, we agree with a commenter's request to add a control measure option (for cooling ponds) that would require developing a plan to optimize the size of cooling ponds to address fugitive HF emissions (as appropriate based on the conditions at the facility); therefore, we are including this option in the NESHAP subpart AA final rule. However, in order for a facility to be able to use this control measure option, its cooling pond evaluation must result in a reduction in overall cooling pond surface area. Fugitive HF emissions are calculated using an emission factor that is directly related to gypsum dewatering stack and pond surface area (tons HF per acre per year); therefore, minimizing the surface area of the cooling pond(s) would minimize HF emissions. On a recent site visit (see "Site Visits to Mosaic Plant City and Mosaic New Wales, March 4, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), we noticed that one company evaluated whether a reduction in the size of its cooling ponds could still support additional water due to rainfall and plant process water needs. However, the result of these evaluations did not lead to a change in size of its cooling ponds, and thus did not lead to a reduction in fugitive HF emissions from the cooling ponds. In the final rule, if this control measure is chosen, then the facility-specific

evaluation plan must be certified by an independent licensed professional engineer or similarly qualified individual, and include the method used to reduce the total cooling pond footprint, the analyses used to determine and support the reduction in the total cooling pond surface area, and the amount of total cooling pond surface area that was reduced due to the facility-specific evaluation plan. Furthermore, we agree with the commenter who stated dredging cooling ponds is a good practice for maintaining cooling capacity. With regard to the commenter's request to include this activity (i.e., dredging cooling ponds) as a specific control measure option,[8] we determined that this activity could be considered in the cooling pond evaluation; however, the evaluation would still need to lead to a change in size of the surface area of the cooling pond for it to qualify as a control measure in the final rule.

We also evaluated an additional control measure option suggested by industry in response to a meeting that occurred after the public comment period closed (see "EPA Meeting Minutes for TFI Discussion March 12, 2015," and "Summary of Potential

[8] Industry also suggested this control measure as an option to reducing fugitive HF emissions from cooling ponds in response to a meeting that occurred after the public comment period closed (see "EPA Meeting Minutes for TFI Discussion March 12, 2015," and "Summary of Potential Costs for Implementing Phosphate NESHAPs/Recommendations for Phosphogypsum Stack Work Practices, May 5, 2015," which are both available in Docket ID No. EPA-HQ-OAR-2012-0522).

Costs for Implementing Phosphate NESHAPs/Recommendations for Phosphogypsum Stack Work Practices, May 5, 2015," which are both available in Docket ID No. EPA-HQ-OAR-2012-0522). Industry suggested including the option to "operate the cooling pond systems to adjust the active cooling surface area to address weather conditions, seasonal cooling needs and associated production changes. Cooling circuit adjustments may be accomplished through utilization of either fixed or floating flow diversion devices or by changing flows such that some of the heated water is diverted away from portions of the ponded area." However, we are not including this option in the final rule because it is not clear how the option reduces fugitive HF emissions from cooling ponds.

v. Excluding Cooling Ponds from Management Plan -- Comment. One commenter requests that the EPA revise the regulatory language in proposed 40 CFR 63.602 (d) through (f) that refers to each "gypsum dewatering stack and cooling pond" to instead refer only to each "gypsum dewatering stack." The commenter stated that the regulatory direction seems to encompass ponds that are not part of a "gypsum dewatering stack." Another commenter claimed the rule implies that control measure options apply to cooling ponds distinctly from gypsum dewatering stacks. An additional commenter alleged that work practice standards should not apply to cooling ponds that are physically separate from gypsum

stacks. This commenter pointed out that only one practice (submerging the discharge pipe) relates to cooling ponds, and because of the requirement to implement at least one practice for each "gypsum dewatering stack and cooling pond," then cooling ponds that fall within the proposed definition of a gypsum dewatering stack seemingly could choose to submerge the discharge pipe at the pond, or they could implement other techniques from the list.

Response. The NESHAP subpart AA final rule clarifies that the gypsum dewatering stack and cooling pond management plan is intended to cover both gypsum dewatering stacks and cooling ponds. In response to a previous comment, we have included a new term "gypsum dewatering stack system," revised the definition of "gypsum dewatering stack" to exclude cooling ponds, and have retained the proposed definition of "cooling pond" in the final rule (see section V.C.3.b.i of this preamble for further details).

4. What is the rationale for our final approach pursuant to CAA sections 112(d)(2), 112(d)(3), and 112(h)?

For the reasons provided above and in the preamble for the proposed rule, we are finalizing our proposal to eliminate the use of PM as a surrogate for Hg and are adding Hg and total fluoride emission limits for phosphate rock calciners to the NESHAP subpart AA final rule.

For the reasons provided above, we are making the revisions, clarifications, and corrections noted in section V.C.2 in the NESHAP subpart AA final rule.

D. NSPS Review for the Phosphoric Acid Manufacturing source category

The NSPS review focused on the emission limitations that have been adequately demonstrated to be achieved in practice, taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements. Determining the BSER that has been adequately demonstrated and the emission limitations achieved in practice necessarily involves consideration of emission reduction methods in use at existing phosphoric acid manufacturing plants. To determine the BSER, the EPA performed an extensive review of several recent sources of information, including a thorough search of the RACT/BACT/LAER Clearinghouse (RBLC), section 114 data received from industry, and other relevant sources.

Our review considered the emission limitations that are currently achieved in practice, and found that more stringent standards are not achievable for this source category. When evaluating the emissions from various process lines, we observed differences in emissions levels, but did not identify any patterns in emission reductions based on control technology configuration. More information concerning our NSPS review can

be found in the memorandum, "CAA Section 111(b)(1)(B) and 112(d)(6) Reviews for the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production Source Categories." Though some of the sources are emitting at levels well below the current NSPS, other sources are not. We evaluated emissions based on control technologies and practices used by facilities, and found that the same technologies and practices yielded different results for different facilities. Therefore, we determined that we cannot conclude that new and modified sources would be able to achieve a more stringent NSPS. As explained in the proposed rule, all Phosphoric Acid Manufacturing NSPS (under subpart T and subpart U) emission sources, and the control technologies that would be employed, are the same as those for the NESHAP regulating phosphoric acid plants, such that we reached the same conclusion that there are no identified developments in technology or practices that results in cost-effective emission reductions strategies. Therefore, we are finalizing our determination that revisions to NSPS subpart T and subpart U standards are not appropriate pursuant to CAA section 111(b)(1)(B).

E. Startup, Shutdown, and Malfunction Provisions for the Phosphoric Acid Manufacturing Source Category

1. What SSM provisions did we propose for the Phosphoric Acid Manufacturing source category?

In its 2008 decision in Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008), the U.S. Court of Appeals for the District of Columbia Circuit vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some CAA section 112 standards apply continuously.

We proposed to eliminate the SSM exemption in NESHAP subpart AA. Consistent with Sierra Club v. EPA, the EPA proposed standards in this rule that apply at all times. We also proposed to revise appendix A of subpart AA (the General Provisions Applicability Table) in several respects as is explained in more detail below. For example, we proposed to eliminate the incorporation of the General Provisions' requirement that the source develop an SSM plan. We also proposed to eliminate and revise certain recordkeeping and reporting related to the SSM exemption as described in detail in the proposed rule and summarized again here.

In proposing the standards in this rule, the EPA took into account startup and shutdown periods and, for the reasons explained below, proposed work practice standards for periods of

startup and shutdown in lieu of numeric emission limits. CAA section 112(h)(1) states that the Administrator may promulgate a design, equipment or operational work practice standard in those cases where, in the judgment of the Administrator, it is not feasible to prescribe or enforce an emission standard. CAA section 112(h)(2)(B) further defines the term "not feasible" in this context to apply when "the application of measurement technology to a particular class of sources is not practicable due to technological and economic limitations."

Startup and shutdown periods at phosphoric acid manufacturing facilities generally only last between 30 minutes and 6 hours. Because of the variability and the relatively short duration, compared to the time needed to conduct a performance test, which typically requires a full working day, the EPA has determined that it is not feasible to prescribe a numeric emission standard for these periods. Furthermore, according to information provided by industry, it is possible that the feed rate (i.e., equivalent P_2O_5 feed, or rock feed) can be zero during startup and shutdown periods. During these periods, it is not feasible to consistently enforce the emission standards that are expressed in terms of lb of pollutant/ton of feed.

Although we requested information on emissions and the operation of control devices during startup and shutdown periods in the CAA section 114 survey issued to the Phosphoric Acid

Manufacturing source category, we did not receive any emissions data collected during a startup and shutdown period (nor did we receive data during public comment of the proposed rule), and we do not expect that these data exist. However, based on the information for control device operation received in the survey, we concluded that the control devices could be operated normally during periods of startup or shutdown. Also, we believe that the emissions generated during startup and shutdown periods are lower than during steady-state conditions because the amount of feed materials introduced to the process during those periods is lower compared to normal operations. Therefore, if the emission control devices are operated during startup and shutdown, then HAP emissions will be the same or lower than during steady-state operating conditions.

Consequently, we proposed a work practice standard rather than an emissions limit for periods of startup or shutdown. We proposed that control devices used on the various process lines in this source category are effective at achieving desired emission reductions immediately upon startup; therefore, during startup and shutdown periods, we proposed that sources begin operation of any control device(s) in the production unit prior to introducing any feed into the production unit. We also proposed that sources must continue operation of the control

device(s) through the shutdown period until all feed material has been processed through the production unit.

Periods of startup, normal operations and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead, they are, by definition, sudden, infrequent and not reasonably preventable failures of emissions control, process or monitoring equipment (40 CFR 63.2) (definition of malfunction). The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards. Under CAA section 112, emission standards for new sources must be no less stringent than the level "achieved" by the best controlled similar source and for existing sources generally must be no less stringent than the average emission limitation "achieved" by the best performing 12 percent of sources in the category. There is nothing in CAA section 112 that directs the EPA to consider malfunctions in determining the level "achieved" by the best performing sources when setting emission standards. As the U.S. Court of Appeals for the District of Columbia Circuit has recognized, the phrase "average emissions limitation achieved by the best performing 12 percent of" sources "says nothing about how the performance of the best units is to be calculated." Nat'l Ass'n of Clean Water Agencies v. EPA, 734 F.3d 1115, 1141

(D.C. Cir. 2013). While the EPA accounts for variability in setting emission standards, nothing in CAA section 112 requires the Agency to consider malfunctions as part of that analysis. A malfunction should not be treated in the same manner as the type of variation in performance that occurs during routine operations of a source. A malfunction is a failure of the source to perform in a "normal or usual manner" and no statutory language compels EPA to consider such events in setting CAA section 112 standards.

Further, accounting for malfunctions in setting emission standards would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the category and given the difficulties associated with predicting or accounting for the frequency, degree and duration of various malfunctions that might occur. As such, the performance of units that are malfunctioning is not "reasonably" foreseeable. See, e.g., Sierra Club v. EPA, 167 F.3d 658, 662 (D.C. Cir. 1999) ("The EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to 'invest the resources to conduct the perfect study.'"). See also Weyerhaeuser v. Costle, 590 F.2d 1011, 1058 (D.C. Cir. 1978) ("In the nature of things, no general limit, individual permit,

or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by 'uncontrollable acts of third parties,' such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation."). In addition, emissions during a malfunction event can be significantly higher than emissions at any other time of source operation. For example, if an air pollution control device with 99 percent removal goes off-line as a result of a malfunction (as might happen if, for example, the bags in a baghouse catch fire) and the emission unit is a steady-state type unit that would take days to shutdown, the source would go from 99 percent control to zero control until the control device was repaired. The source's emissions during the malfunction would be 100 times higher than during normal operations, and the emissions over a 4-day malfunction period would exceed the annual emissions of the source during normal operations. As this example illustrates, accounting for malfunctions could lead to standards that are not reflective of (and significantly less stringent than) levels that are achieved by a well-performing non-malfunctioning source. It is reasonable to interpret CAA section 112 to avoid such a result. The EPA's approach to malfunctions is consistent

with CAA section 112 and is a reasonable interpretation of the statute.

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, sudden, infrequent, not reasonably preventable and was not instead caused in part by poor maintenance or careless operation 40 CFR 63.2 (definition of malfunction).

If the EPA determines in a particular case that an enforcement action against a source for violation of an emission standard is warranted, the source can raise any and all defenses in that enforcement action, and the federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate.

In summary, the EPA interpretation of the CAA and, in particular, CAA section 112 is reasonable and encourages practices that will avoid malfunctions. Administrative and judicial procedures for addressing exceedances of the standards fully recognize that violations may occur despite good faith efforts to comply and can accommodate those situations.

To address the U.S. Court of Appeals for the District of Columbia Circuit vacatur of portions of the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM, Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008), we proposed to revise and add certain provisions to the Phosphoric Acid Manufacturing rule. As described in detail below, we proposed to revise the General Provisions table (appendix A) to change several references related to requirements that apply during periods of SSM. We also proposed to add other provisions to the Phosphoric Acid Manufacturing rule as described below.

a. 40 CFR 63.608(b) General Duty. We proposed to revise the entry for 40 CFR 63.6(e)(1)(i) and (e)(1)(ii) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We proposed instead to add general duty regulatory text at 40 CFR 63.608(b) that reflects the general

duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown and malfunction events in describing the general duty. Therefore, the language the EPA proposed does not include that language from 40 CFR 63.6(e)(1). We also proposed to revise the entry for 40 CFR 63.6(e)(1)(ii) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant of the general duty requirement being added at 40 CFR 63.608(b).

b. SSM Plan. We proposed to revise the entry for 40 CFR 63.6(e)(3) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As noted, the EPA proposed to remove the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive

to plan for and achieve compliance and thus the SSM plan requirements are no longer necessary.

c. Compliance with Standards. We proposed to revise the entry for 40 CFR 63.6(f) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in Sierra Club v. EPA vacated the exemptions contained in this provision and held that the CAA requires that some CAA section 112 standard apply continuously. Consistent with Sierra Club v. EPA, the EPA proposed to revise standards in this rule to apply at all times.

d. 40 CFR 63.606 Performance Testing. We proposed to revise the entry for 40 CFR 63.7(e)(1) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.7(e)(1) describes performance testing requirements. The EPA instead proposed to add a performance testing requirement at 40 CFR 63.606(d). The performance testing requirements that were proposed differ from the General Provisions performance testing provisions in several respects. The proposed regulatory text does not allow testing during startup, shutdown, or malfunction. The proposed regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and

shutdown periods from being considered "representative" for purposes of performance testing. Furthermore, as in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of operating conditions.

e. Monitoring. We proposed to revise the entry for 40 CFR 63.8(c)(1)(i) and (iii) in the General Provisions table by changing the "yes" in column three to "no." The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)).

We proposed to revise the entry for 40 CFR 63.8(d)(3) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." The final sentence in 40 CFR 63.8(d)(3) refers to the General Provisions' SSM plan requirement, which is no longer applicable. The EPA proposed to add to the rule at 40 CFR 63.608(c)(3) text that is identical to 40 CFR 63.8(d)(3), except that the final sentence is replaced with the following sentence: "You must include the program of corrective action required under §63.8(d)(2) in the plan."

f. 40 CFR 63.607 Recordkeeping. We proposed to revise the entry for 40 CFR 63.10(b)(2)(i) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.10(b)(2)(i) describes the recordkeeping requirements during startup and shutdown. These recording provisions are no longer necessary because the EPA proposed that recordkeeping and reporting applicable to normal operations will apply to startup and shutdown. In the absence of special provisions applicable to startup and shutdown, such as a startup and shutdown plan, there is no reason to retain additional recordkeeping for startup and shutdown periods.

We proposed to revise the entry for 40 CFR 63.10(b)(2)(ii) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction. The EPA proposed to add such requirements to 40 CFR 63.607(b). The regulatory text we proposed to add differs from the General Provisions it is replacing in that the General Provisions requires the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control and monitoring equipment. The EPA proposed that this requirement apply to any failure to meet an applicable standard and that the source record the date, time and duration of the failure rather than the "occurrence." The EPA also

proposed to add to 40 CFR 63.607(b) a requirement that sources keep records that include a list of the affected source or equipment and actions taken to minimize emissions, an estimate of the volume of each regulated pollutant emitted over the applicable standard and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available or engineering judgment based on known process parameters. The EPA proposed requiring that sources keep records of this information to ensure that there is adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We proposed to revise the entry for 40 CFR 63.10(b)(2)(iv) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and

record corrective actions is now applicable by reference to 40 CFR 63.607.

We proposed to revise the entry for 40 CFR 63.10(b)(2)(v) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." When applicable, the provision requires sources to record actions taken during SSM events to show that actions taken were consistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required.

We proposed to revise the entry for 40 CFR 63.10(c)(15) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." The EPA proposed that 40 CFR 63.10(c)(15) no longer apply. When applicable, the provision allows an owner or operator to use the affected source's SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA proposed to eliminate this requirement because SSM plans would no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

g. 40 CFR 63.607 Reporting. We proposed to revise the entry for 40 CFR 63.10(d)(5) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.10(d)(5) describes the reporting requirements for startups,

shutdowns and malfunctions. To replace the General Provisions reporting requirement, the EPA proposed to add reporting requirements to 40 CFR 63.607. The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We proposed language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the excess emission report already required under this rule. We proposed that the report must contain the number, date, time, duration and the cause of such events (including unknown cause, if applicable), a list of the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions (e.g., product-loss calculations, mass balance calculations, direct measurements or engineering judgment based on known process parameters). The EPA proposed this requirement to ensure that adequate information is available to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

The proposed rule eliminates the cross reference to 40 CFR 63.10(d)(5)(i) that contains the description of the previously-

required SSM report format and submittal schedule from this section. We proposed that these specifications would no longer be necessary because the events will be reported in otherwise required reports with similar format and submittal requirements. We proposed that owners or operators no longer be required to determine whether actions taken to correct a malfunction are consistent with an SSM plan because the plans would no longer be required.

We proposed to revise the entry for 40 CFR 63.10(d)(5)(ii) in the General Provisions table (appendix A) by changing the "yes" in column three to "no." Section 63.10(d)(5)(ii) describes an immediate report for SSM when a source failed to meet an applicable standard but did not follow the SSM plan. We proposed that we would no longer require owners and operators to report when actions taken during a startup, shutdown, or malfunction were not consistent with an SSM plan because the plans would no longer be required.

2. How did the SSM provisions change for the Phosphoric Acid Manufacturing source category?

We are finalizing the proposed work practice standards for periods of startup and shutdown; however, in consideration of comments received during the public comment period for the proposed rulemaking (as discussed in sections V.E.3.a and V.E.3.b of this preamble), we are making changes to this work practice

in order to clarify the standard applies in lieu of numeric emission limits and to clarify how compliance with the standard is demonstrated. Additionally, as discussed in section V.E.3.c of this preamble, we added a definition of "startup" and "shutdown" in the final rule to specify when startup begins and ends, and when shutdown begins and ends.

3. What key comments did we receive on the SSM provisions, and what are our responses?

We received comments regarding the proposed revisions to remove the SSM exemptions for the Phosphoric Acid Manufacturing source category, and the proposed work practice standards for periods of startup and shutdown. The following is a summary of some of the comments specific to the proposed work practice standards and our response to those comments. Other comments and our specific responses to those comments can be found in the Comment Summary and Response document available in the docket for this action (EPA–HQ–OAR–2012–0522).

a. Work Practice Standard In Place Of Emission Limits -- Comment. One commenter argued that the EPA should specify that the proposed work practices for plant startup and shutdown periods apply "in lieu of" any other emission standards, and that such periods should not be counted for testing, monitoring, or operating parameter requirements. The commenter noted that the proposed rule at 40 CFR 63.602(h) requires the use of work

practices "to demonstrate compliance with any emission limits" during periods of startup and shutdown. The commenter agrees with the EPA's conclusion that it is not feasible to apply numeric limits to startup and shutdown because certain variables required to calculate emissions would be zero during such periods. The commenter also agreed with the EPA that existing emission control devices would still be effective during periods of startup or shutdown, if activated. However, the commenter recommended that the rule should clarify that startup and shutdown events should not be required to comply with the monitoring and operating parameter requirements because startup and shutdown events generally are not representative of operating conditions for other compliance purposes, such as emissions testing. Instead, the commenter, as well as a second commenter, recommended that, because the startup and shutdown periods are not representative, the rule should only require that (1) all emission control devices be kept active, and (2) owners and operators follow the general duty to control emissions, and owners and operators should not be required to monitor operating parameters during startup and shutdown periods.

The commenter argued that the approach in the proposed rule at 40 CFR 63.602(h) to require the use of work practices "to demonstrate compliance with any emission limits" during periods

of startup and shutdown is "directly inconsistent" with the approach that the EPA has applied to other source categories, where such practices clearly were prescribed "in lieu of" numeric emission limits that would otherwise apply. (The commenter cites, for example, 78 FR 10015, February 12, 2013.) According to the commenter, the EPA made it clear in other industries' rules that such work practice standards apply "in place of" or "in lieu of" numeric standards, including with respect to monitoring and recordkeeping requirements. (See id. at 10013 and 10015.) The commenter argues that according to the preamble language cited for those other industries, "there will no longer be a numeric emission standard applicable during startup and shutdown," and the EPA recognizes that "the recordkeeping requirement must change to reflect the content of the work practice standard"(Id. at 10014).

Therefore, the commenter recommended that the EPA should clearly explain that work practices are not applied to "demonstrate compliance" with numeric limits under subpart AA, which the EPA acknowledges are "not feasible" for startup and shutdown periods, and, instead, the work practices should be written to apply "in lieu of" the numeric limits during those periods. The commenter argues that without this clarification, it will appear that both the numeric standards and the work practice standards would apply during startup and shutdown. The

commenter suggests that this can be corrected in the rule by using the "in lieu of" language used for other industries.

Response. The commenter is correct that our intention at proposal was that the numeric emission limits would not apply during periods of startup and shutdown, but that facilities would comply with the work practice instead. We did not intend for the work practice to be a method to demonstrate compliance with the emission limit. We are replacing the phrasing "to demonstrate compliance" with "in lieu of" as this language is more consistent with our original intent. Accordingly, in the final rule, 40 CFR 63.602(f) specifies that the emission limits of 40 CFR 63.602(a) do not apply during periods of startup and shutdown. Instead, owners and operators must follow the work practice specified in 40 CFR 63.602(f). See section V.E.3.b of this preamble for our response to commenters' argument that owners and operators should not be required to monitor operating parameters during startup and shutdown periods.

b. Applicability Of Operating Limits -- Comment. Two commenters recommended that the EPA amend the rule to make clear that the work practice standards for startup and shutdown also apply in lieu of the parametric monitoring requirements set forth in subpart AA and make explicit that parametric operating requirements do not apply during times of startup and shutdown.

One commenter argued that when the EPA established the flow rate and pressure drop parametric monitoring requirements in its 1999 final rule, the EPA concluded that requiring continuous monitoring of these parameters "help[ed] assure continuous compliance with the emission limit" (64 FR 31365, June 10, 1999). The commenter also asserted that the rules specify that "[t]he emission limitations and operating parameter requirements of this subpart do not apply during periods of startup, shutdown, or malfunction . . ." (40 CFR 63.600(e)). The commenter argued that this was a reasonable action because the operating parameter ranges are established during annual performance tests, and these tests cannot be performed during startup and shutdown conditions.

The commenter suggested that in the proposed rule, the EPA exempted compliance with the emission limits during startup and shutdown periods, imposed work practice standards in lieu thereof, and retained the prohibition on conducting a performance test during periods of startup or shutdown (79 FR 66570 (proposed 40 CFR 63.606(d)). The commenter suggested that the proposed rule is silent on the applicability of the parametric monitoring requirements during startup and shutdown. The commenter asserted that because the parametric monitoring provisions provide an inference of compliance with the emission limits (64 FR 31365, June 10, 1999), and these emission limits

do not apply during startup and shutdown, the commenter concluded that the parametric monitoring provisions similarly should not apply during startups and shutdowns.

The commenters pointed to two recent EPA NESHAP rulemakings to support their conclusion. First, the commenters argued that in its industrial, commercial and institutional boilers and process heaters NESHAP reconsideration proposal (hereinafter, the "Boiler NESHAP"), the EPA, responding to a comment soliciting clarification "that the operating limits and opacity limits do not apply during periods of startup and shutdown," stated that with the finalization of work practice standards, "EPA agrees that the requested clarification is what was intended in the final rule" (76 FR 80598 and 80615, December 23, 2011). The commenters asserted that to this end, in its response to the reconsideration, the EPA made clear that affected sources must comply with "all applicable emissions and operating limits at all times the unit is operating except for periods that meet the definitions of startup and shutdown in this subpart, during which times you must comply with these work practices" (78 FR 7138 and 7142, January 31, 2013). The commenters noted that in the Boiler NESHAP regulations, the EPA required the implementation of work practice standards in lieu of compliance with the operating parameter requirements during startup and shutdown by (1) Excluding periods of startup and shutdown from

the averaging period (Id. at 7187, 40 CFR 63.7575, the definition of a 30-day rolling average" excludes "hours during startup and shutdown"), and (2) expressly stating that the "standards" (the emission limits and operating requirements) do not apply during periods of startup or shutdown. (Id. at 7163, 40 CFR 63.7500(f), titled "What emission limitations, work practice standards, and operating limits must I meet?" applies "at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 of this subpart.")

Second, the commenters argued that in its Portland Cement NESHAP, the EPA specified an operating limit for kilns, identified as a temperature limit established during a performance test, and that the temperature limit applied at all times the raw mill is operating, "except during periods of startup and shutdown" (78 FR 10039, February 12, 2013, 40 CFR 63.1346(a)(1)). Further, for the continuous monitoring requirements, including operating limits, the Portland Cement NESHAP required operating of the monitoring system at all times the affected source is operating, "[e]xcept for periods of startup and shutdown" (Id. at 10041, 40 CFR 63.1348(b)(1)(ii)).

The commenters argued that given the EPA's conclusion in the proposed rule that the emission limits should not apply during startup and shutdown, and because the parametric

monitoring requirements are established during a performance test (which cannot be performed during a startup or a shutdown) and used to infer compliance with the emission limits, the EPA should make clear in the final rule that the operating parameters requirements do not apply during startup or shutdown. The commenter recommended that the EPA should make this explicit: (1) In the operating and monitoring requirement section of subpart AA (proposed 40 CFR 63.605), and (2) by defining the averaging period (currently daily) as excluding periods of startup and shutdown (proposed 40 CFR part 63, subpart AA, Table 4.) As an alternative, the commenters recommended that if the EPA continues to require compliance with the parametric monitoring requirements during startup and shutdown periods, then the EPA should adopt a longer averaging period, from daily to 30 days, to allow for the effects of startups and shutdowns to be reduced by a longer period of steady-state operations. The commenter noted that the Boiler NESHAP has a 30-day averaging period for pressure drop and liquid flow rate, and excludes periods of startup and shutdown from the averaging period (40 CFR 63.7575, definition of “30-day rolling average” and 40 CFR Part 63, subpart DDDDD, Table 4.) The commenter stated that a 30-day averaging period would be substantially more stringent than the Boiler NESHAP approach since it would include periods of startup and shutdown, while at

the same time avoid misleading "exceedances" caused by the inclusion of periods of startup and shutdown compared to daily average parametric limits.

Response. We disagree with the commenters about the applicability of the operating limits. Based on these comments, we have clarified in the final rule at 40 CFR 63.602(f) that to comply with the work practice during periods of startup and shutdown, facilities must monitor the operating parameters specified in Table 3 to subpart AA and comply with the operating limits specified in Table 4 of subpart AA. The purpose of the work practice is to ensure that the air pollution control equipment that is used to comply with the emission limit during normal operations is operated during periods of startup and shutdown. Monitoring of control device operating parameters is necessary to demonstrate compliance with the work practice. We have concluded that it is reasonable for the control device at phosphoric acid processes to meet the same operating limits during startup and shutdown that apply during normal operation, and that it is not necessary to specify different averaging times for periods of startup and shutdown. Meeting the operating limits of Table 4 of subpart AA will ensure that owners and operators meet the General Duty requirement to operate and maintain the affected source and associated air pollution

control equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions.

The analogies that the commenters made to the Industrial Boiler NESHAP and the Portland Cement NESHAP are not relevant to this rulemaking. In each rulemaking, we consider the feasibility of applying standards during startup and shutdown based on relevant process considerations for each source category, the pollutants regulated, and control devices on which the rule is based. In developing this rule, we obtained information on the operation of control devices during startup and shutdown periods in the CAA section 114 survey issued to the phosphoric acid manufacturing industry. Based on survey results, we concluded that for this source category, control devices (i.e., absorbers and WESP) could be operated during periods of startup and shutdown. We found no indication that process operations during startup and shutdown would interfere with the ability to operate the relevant control devices according to good engineering practice. Moreover, the commenters provided no technical justification as to why a different operating limit is needed during startup and shutdown.

Regarding the comparison to the Industrial Boiler NESHAP, the operation of boilers and their associated control devices are different than phosphoric acid plants. While boiler control devices do not have to comply with specific operating limits

during startup or shutdown, they must meet a work practice that includes firing clean fuels, operating relevant control devices (e.g., absorbers) as expeditiously as possible, and monitoring the applicable operating parameters (e.g., flow rate) to demonstrate that the control devices are being operated properly. The EPA currently is reconsidering the control requirements for industrial boilers during startup and shutdown (80 FR 3090, January 21, 2015). In the proposed action on reconsideration, we pointed out that some of the control devices used for boilers cannot be operated during the full duration of startup and shutdown because of safety concerns and the possibility of control equipment degradation due to fouling and corrosion. The control devices used for phosphoric acid production do not pose these same risks. Likewise, the fact the Portland Cement NESHAP does not require monitoring of kiln temperature during startup and shutdown is not relevant. The Portland Cement NESHAP requires maintaining a kiln temperature as part of the MACT operating limit. The operating limit for the Portland Cement NESHAP does not apply during startup and shutdown because it is not physically possible to maintain a constant temperature during startup and shutdown of a kiln. In contrast, the feasibility of operating the control devices used to control HAP emissions from phosphoric acid manufacturing is not limited by specific process operating conditions. Therefore,

it is feasible to operate the devices during startup and shutdown, and we have determined that it is reasonable to do so considering cost, nonair health and environmental impacts, and energy requirements.

c. Definition Of Startup And Shutdown -- Comment. Several commenters argued that the EPA's proposed work practice standard for periods of startup and shutdown failed to account for how equipment in the phosphoric acid industry works. In order to comply with the proposed startup and shutdown requirements, the operator must begin operation of any control device(s) being used at the affected source prior to introducing any feed into the affected source and continue operation of the control device(s) through the shutdown period until all feed material has been processed through the affected source. The commenters noted that it is not feasible to process all feed material from a process prior to shutting down most equipment at a facility. For example, the phosphoric acid reactors and beds in the calciners may not be able to process all the feed material in them prior to shutdown and there would always still be feed material left in the equipment even after it is shutdown. The same would be true for nearly all process units in the industry. The commenters requested that the EPA revise 40 CFR 63.602(h) to require compliance with the work practice standard only up to

the point in time when no more feed or in-process materials are being introduced into the production unit.

Two commenters agreed with other commenters that it is not feasible to base the conclusion of a "shutdown" on the point at which all feed has "been processed." Instead, they suggested that the EPA should clarify the work practice standard of keeping all emission control equipment active during shutdowns. The commenters reported that facilities in the industry consider the commencement of "shutdown" as the moment at which the plant ceases adding feed to the affected process, rather than basing shutdown on when all feed materials have been processed through the process. The commenters recommended that the EPA should define "shutdown" to begin when the facility ceases adding feed to an affected process line, and to conclude when the affected process line equipment is deactivated, even though some feed or residues may still be present within particular parts of the process.

One of the commenters also noted that it is common practice to have short-term shutdown of process inputs for temporary maintenance work (including work on emission control equipment) where the entire system is not emptied. In these cases, feed of phosphoric acid and ammonia to the process is suspended as is flow from the reactor to the granulator. The commenter argued that because the source of fluoride to the system has ceased and

dust generating material flows are suspended, there should be no significant source of emissions to control, and it is not necessary to require the use of control devices until all feed material has been processed. Instead, the commenter recommended that an affected entity should be allowed to turn off control devices when reactor and granulator feeds have been stopped, unless the system is being emptied, in which case control devices should be required as long as the material handling system is in operation.

Response. We agree with the commenters that the rule needs to have a more precise definition of startup and shutdown that more clearly and reasonably establishes the times when the work practice applies and when the emission limits apply. Accordingly, we added a definition of "startup" and "shutdown" in the definitions section of the final rule to specify when startup begins and ends, and when shutdown begins and ends.

Based on additional information provided by industry (see "Email Correspondence Received After Comment Period re Startup Shutdown (May 5, 2015)," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), we are including a definition of startup in the final rule. The final rule defines startup as commencing when any feed material is first introduced into an affected source and ends when feed material is fully loaded into the affected source. Regarding shutdown, we agree with the

commenters that it is not feasible to process all feed material from a process prior to shutting down most equipment at a facility. Such requirement would imply that the control device must be operated after the shutdown ends. The final rule defines shutdown as commencing when the facility ceases adding feed to an affected source and ends when the affected source is deactivated, regardless of whether feed material is present in the affected source. This definition will address concerns about temporary shutdowns as well as shutdowns of longer duration.

In addition, the final rule at 40 CFR 63.602(f) specifies that any control device used at the affected source must be operated during the entire period of startup and shutdown, and must meet the operating limits in Table 4 of the final rule.

4. What is the rationale for our final decisions for the SSM provisions?

For the reasons provided above and in the preamble for the proposed rule, we are finalizing the proposed revisions to the General Provisions table (appendix A of NESHAP subpart AA) to change several references related to requirements that apply during periods of SSM. For these same reasons, we are also finalizing the addition of the following proposed provisions to NESHAP subpart AA: (1) Work practice standards for periods of startup and shutdown in lieu of numeric emission limits; (2) the general duty to minimize emissions at all times; (3) performance

testing conditions requirements; (4) site-specific monitoring plan requirements; and (5) malfunction recordkeeping and reporting requirements.

F. Other Changes Made to the Phosphoric Acid Manufacturing NESHAP and NSPS

1. What other changes did we propose for the Phosphoric Acid Manufacturing NESHAP and NSPS?

a. Clarifications to Applicability and Certain Definitions --

i. NESHAP Subpart AA. As stated in the preamble to the proposed rule, to ensure the emission standards reflect inclusion of HAP emissions from all sources in the source category, we proposed to amend the definitions of WPPA process line, SPA process line, and PPA process line to include relevant emission points, including clarifiers and defluorination systems at WPPA process lines, and oxidation reactors at SPA production lines. We also proposed removing text from the applicability section that is duplicative of the revised definitions.

We also proposed revising the term “gypsum stack” to “gypsum dewatering stack” in order to help clarify the meaning of this fugitive emission source, and to alleviate any potential misconception that the “stack” is a point source. Other changes we proposed included the addition of definitions for “cooling pond,” “phosphoric acid defluorination process,” “process line,” and “raffinate stream.”

ii. NSPS Subpart T. As stated in the preamble to the proposed rule, to ensure the emission standards we proposed reflected inclusion of total fluoride emissions from all sources in the defined source category, we proposed to amend the definition of WPPA plant to include relevant emission points, including clarifiers and defluorination systems. We also proposed to remove text from the applicability section that is duplicative of the revised definitions.

iii. NSPS Subpart U. To ensure the emission standards we proposed reflected inclusion of total fluoride emissions from all sources in the defined source category, we proposed to amend the definition of SPA plant to include relevant emission points, including oxidation reactors. We also proposed to remove text from the applicability section that is duplicative of the revised definitions.

b. Testing, Monitoring, Recordkeeping and Reporting --

i. NESHAP Subpart AA. As stated in the preamble to the proposed rule, to provide flexibility, we proposed several monitoring options, including pressure and temperature measurements, as alternatives to monitoring of absorber differential pressure. We also proposed monitoring the absorber inlet gas flow rate along with the influent absorber liquid flow rate (and determining liquid-to-gas ratio) in lieu of monitoring only the absorber inlet liquid flow rate.

In addition, we proposed removing the requirement that facilities may not implement new operating parameter ranges until the Administrator has approved them, or 30 days have passed since submission of the performance test results. We proposed that facilities must immediately comply with new operating ranges when they are developed and submitted; and new operating ranges must be established using the most recent performance test conducted by a facility, which allows for changes in control device operation to be appropriately reflected.

As stated in the preamble to the proposed rule, we modified the language for the conditions under which testing must be conducted to require that testing be conducted at "maximum representative operating conditions" for the process.[9]

In keeping with the general provisions for CMS (including CEMS and continuous parameter monitoring system (CPMS)), we proposed the addition of a site-specific monitoring plan and calibration requirements for CMS. Provisions were also proposed that included electronic reporting of stack test data. We also proposed modifying the format of NESHAP subpart AA to reference tables for emissions limits and monitoring requirements.

[9] Based on the EPA memorandum, "Issuance of the Clean Air Act National Stack Testing Guidance," dated April 27, 2009.

Finally, we proposed HF standards in NESHAP subpart AA by translating the current total fluoride limits (lb total F/ton P_2O_5 feed) into HF limits (lb HF/ton P_2O_5 feed). To comply with HF standards, we proposed that facilities use EPA Method 320.

ii. NSPS Subpart T. We proposed new monitoring and recordkeeping requirements for any WPPA plant that commences construction, modification, or reconstruction after November 7, 2014 to ensure continuous compliance with the standard. As stated in the preamble to the proposed rule, to ensure that the process scrubbing system is properly maintained over time; ensure continuous compliance with standards; and improve data accessibility, we proposed the owner or operator establish an allowable range for the pressure drop through the process scrubbing system. We also proposed that the owner or operator keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations.

For consistency with terminology used in the associated NESHAP subpart AA, we proposed changing the term "process scrubbing system" to "absorber" in NSPS subpart T.

iii. NSPS Subpart U. We proposed new monitoring and recordkeeping requirements for any SPA plant that commences construction, modification or reconstruction after November 7, 2014 to ensure continuous compliance with the standard. As stated in the preamble to the proposed rule, to ensure that the

process scrubbing system is properly maintained over time; ensure continuous compliance with standards; and improve data accessibility, we proposed the owner or operator establish an allowable range for the pressure drop through the process scrubbing system. We also proposed that the owner or operator keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations.

For consistency with terminology used in the associated NESHAP subpart AA, we proposed changing the term "process scrubbing system" to "absorber" in NSPS subpart U.

2. How did the provisions regarding these other proposed changes to the Phosphoric Acid Manufacturing NESHAP and NSPS change since proposal?

a. Clarifications to Applicability and Certain Definitions --

i. NESHAP Subpart AA. In consideration of comments received during the public comment period for the proposed rulemaking, we are adopting the proposed clarifications for oxidation reactors as discussed in section V.F.3.a.i of this preamble; however, we are also revising the definition of oxidation reactor in the final rule to clarify that oxidizing agents may include: nitric acid, ammonium nitrate, or potassium permanganate. Also, in consideration of comments received (see section V.F.3.a.ii of this preamble for details), we are not adopting the proposed clarifications for defluorination systems and clarifiers.

We have not made any change to the proposed revision to rename "gypsum stack" to "gypsum dewatering stack." We have also not made any changes to the proposed definitions for "cooling pond" and "raffinate stream"; however, we are removing the proposed definitions for "phosphoric acid defluorination process" and "process line" for reasons discussed in sections V.F.3.a.ii and V.F.3.a.iii of this preamble, respectively.

Finally, we are removing the proposed language "includes, but is not limited to" in the definitions of WPPA, SPA, and PPA process lines for reasons discussed in section V.F.3.a.iv of this preamble.

ii. NSPS Subpart T. In consideration of comments received (see section V.F.3.a.ii of this preamble for details), we are not adopting the proposed clarifications for defluorination systems and clarifiers. We are also removing the proposed language "includes, but is not limited to" in the definitions of WPPA plant for reasons discussed in section V.F.3.a.iv of this preamble.

iii. NSPS Subpart U. In consideration of comments received during the public comment period for the proposed rulemaking, we are adopting the proposed clarifications for oxidation reactors as discussed in section V.F.3.a.i of this preamble; however, we are also revising the proposed definition of oxidation reactor in the final rule to clarify that oxidizing agents may include:

nitric acid, ammonium nitrate, or potassium permanganate. We are also removing the proposed language "includes, but is not limited to" in the definitions of SPA plant for reasons discussed in section V.F.3.a.iv of this preamble.

b. Testing, Monitoring, Recordkeeping and Reporting --

i. NESHAP Subpart AA. We have not made any changes in our proposed determination that pressure drop is not an appropriate monitoring parameter for absorbers that are designed to operate with pressure drops of 5 inches of water column or less. However, in consideration of comments received during the public comment period for the proposed rulemaking, we are not adopting the proposed options to monitor: (1) The temperature at the wet scrubber gas stream outlet and pressure at the liquid inlet of the absorber, or (2) the temperature at the scrubber gas stream outlet and scrubber gas stream inlet. Instead, we have revised Table 3 of NESHAP subpart AA to require liquid-to-gas ratio monitoring for low-energy absorbers, and influent liquid flow and pressure drop monitoring for high-energy absorbers; and we are keeping liquid-to-gas ratio monitoring as an option for high-energy absorbers in the final rule. (See section V.F.3.b.i and V.F.3.b.ii of this preamble for details.)

In addition to these revisions, we are making corrections at 40 CFR 63.607(a) to clarify the procedures for establishing a new operating limit based on the most recent performance test.

We are also revising the requirements at 40 CFR 63.605(d)(1)(ii)(B) of the final rule to remove the requirement that facilities must request and obtain approval of the Administrator for changing operating limits. (See section V.F.3.b.iii and V.F.3.b.iv of this preamble for details.)

Also, for reasons discussed in the in the Comment Summary and Response document available in the docket, we are revising the annual testing schedule in the final rule at 40 CFR 63.606(b), and the terminology for "maximum representative operating conditions" in the final rule at 40 CFR 63.606(d).

We are not making any changes to the proposed addition of a site-specific monitoring plan and calibration requirements for CMS. We are also keeping the proposed term "absorber" in lieu of "scrubber," as well as the proposed format of NESHAP subpart AA to reference tables for emissions limits and monitoring requirements.

Lastly, we are retaining the current total fluoride limits and not adopting the proposed HF standards and associated EPA Method 320 testing in NESHAP subpart AA (see section V.F.3.c of this preamble for details).

ii. NSPS Subpart T. We are not making changes to the proposed monitoring and recordkeeping requirements for any WPPA plant that commences construction, modification or reconstruction after **[insert date of publication in the Federal Register]** to

ensure continuous compliance with the standard. We are also keeping the proposed term "absorber" in lieu of "process scrubbing system."

iii. NSPS Subpart U. We are not making changes to the proposed monitoring and recordkeeping requirements for any SPA plant that commences construction, modification, or reconstruction after [**insert date of publication in the Federal Register**] to ensure continuous compliance with the standard. We are also keeping the proposed term "absorber" in lieu of "process scrubbing system."

3. What key comments did we receive on the other changes to the Phosphoric Acid Manufacturing NESHAP and NSPS, and what are our responses?

Several comments were received regarding the proposed clarifications to applicability and certain definitions, revisions to testing, monitoring, recordkeeping and reporting, translation of total fluoride to HF emission limits, and revisions to other provisions for the Phosphoric Acid Manufacturing source category. The following is a summary of significant comments and our response to those comments. Other comments received and our responses to those comments can be found in the Comment Summary and Response document available in the docket for this action (EPA–HQ–OAR–2012–0522).

a. Applicability Clarifications and Certain Definitions -- i. Oxidation Reactors -- Comment. Several commenters remarked that

the proposed definition of SPA process line to include oxidation reactors is problematic and goes beyond clarification. These commenters requested that the EPA develop more specific language or provide a clear technical basis under the CAA because any equipment that was not expressly included in EPA's MACT floor calculations should not be included in the affected source definition.

Commenters mentioned that the EPA's memorandum "Applicability Clarifications to the Phosphoric Acid Manufacturing Source Category," which is available in the docket for this action, captured four facilities, but it was not clear whether the PCS Aurora facility was included in the count. These commenters stated that the oxidation step at this facility is carried out in agitated tanks that do not have any emissions control, and the emissions from the oxidation step are not included in their annual performance testing (when demonstrating compliance with the current total fluoride limits). The commenters said that it was not clear whether this oxidation step involves an "oxidation reactor" as proposed; and, if it does, the commenters argued that the EPA has not considered additional costs imposed by including "any equipment that uses an oxidizing agent to treat phosphoric acid" within the scope of the NESHAP at 40 CFR part 63, subpart AA.

Response. We are adopting the proposed SPA process line definition in NESHAP subpart AA, and the proposed SPA plant definition in NSPS subpart U, to include oxidation reactors. Based on information in process flow diagrams provided by facilities, we initially believed that oxidation reactors were part of the SPA process lines that would have been considered in the original MACT analysis, and, thus subject to the existing limits. In response to comments that stated the opposite was true, we searched historical data, specifically the 1996 memorandum "National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing and Phosphate Fertilizers Production; Proposed Rules – Draft Technical Support Document and Additional Technical Information" (1996 TSD). The 1996 TSD lists, in Attachment 2, the test data for SPA process lines that were assembled for the MACT floor analysis (the 1996 TSD is item II-B-20 in Docket A-94-02). Based on this review as well as a facility construction air permit, we determined that oxidation reactor emissions from at least one facility, PCS White Springs (see the emission point "Occidental, Suwanee Rv., FL - G" in the 1996 TSD), were included with this assembled SPA test dataset. It is possible that three other facilities (see the emission points "J.R. Simplot, Pocatello, ID" for the Simplot Don-Pocatello facility, "Nu-West, Soda Springs, ID" for the Agrium Nu-West facility, and "Texasgulf, Aurora, NC" for the

PCS Aurora facility in the 1996 TSD) with oxidation reactors were also included in this original dataset since we know today that these facilities have oxidation reactors; however, it is unclear whether the oxidation reactors at these facilities were operating when the dataset was assembled. Nevertheless, based on the emission point "Occidental, Suwanee Rv., FL – G," SPA process lines that incorporate an oxidation reactor were included as part of the SPA emissions dataset that was evaluated in order to conduct the MACT floor analysis.

In addition, the EPA's technology review revealed that SPA process lines at four different facilities include an oxidation reactor to remove organic impurities from the acid. We determined that one of these facilities (Simplot Don-Pocatello) already ducts their oxidation reactor emissions through their SPA process line wet scrubber, and is achieving compliance with the SPA total fluoride emission limit. For two of these facilities (PCS White Springs and Agrium Nu-West), we determined that when their oxidation reactor emissions are combined with the rest of their SPA process line emissions, the facilities are in compliance with the total fluoride emission limit. Therefore, for these three facilities it would not be necessary to upgrade existing control systems, or to install a control system, in order to comply with the rule.

With regard to the oxidation reactor at the fourth facility (PCS Aurora), the Agency has determined that this process (i.e., an oxidation step carried out in agitated tanks) does qualify as an oxidation reactor. Based on information that we received from industry after the public comment period ended for the proposal (see docket item EPA-HQ-OAR-2012-0522-0051), potassium permanganate is used in the PCS Aurora oxidation step. This oxidizing agent was one of three specifically cited in our memorandum "Applicability Clarifications to the Phosphoric Acid Manufacturing Source Category," which is available in the docket for this action, so based on the data available, this oxidation step should be included as part of the SPA process line emissions when determining compliance with the SPA total fluoride emission limit. Furthermore, based on this same information that we received from industry after the public comment period ended for the proposal, PCS Aurora may need to install a new absorber in order to control its oxidation process emissions due to logistical complications and concerns about inadequate capacity of other existing absorbers at their SPA units. PCS Aurora estimated the absorber (venturi scrubber) would incur capital costs of approximately $270,500, based on prior absorber purchases for its facility. We estimated annual costs of approximately $95,000. The costs associated with this change are discussed further in the memorandum "Control Costs

and Emissions Reductions for Phosphoric Acid and Phosphate Fertilizer Production Source Categories – Final Rule," which is available in Docket ID No. EPA-HQ-OAR-2012-0522.

The definition of oxidation reactor in the final rule for NESHAP subpart AA has been revised to clarify that oxidizing agents may include: nitric acid, ammonium nitrate, or potassium permanganate. The words "or step" has also been added to the definition of oxidation reactor, for instances when a facility may not typically identify their oxidation process as occurring in a reactor. The definition now states that "oxidation reactor means any equipment or step that uses an oxidizing agent (e.g., nitric acid, ammonium nitrate, or potassium permanganate) to treat SPA." Similarly, the definition of "SPA plant" in the final rule for NSPS subpart U has also been revised to reflect these changes.

ii. Defluorination and Clarifiers -- Comment. Many commenters opposed the proposed expanded definition of "wet-process phosphoric acid line" to include "clarifiers" and "defluorination processes." These commenters stated that the proposed revisions have the potential to pull in several "defluorination processes" and "clarifiers" that are not subject to the current rule (e.g., animal feed phosphate production operations that have traditionally been outside the scope of this subpart). These commenters argued that any unit operation

that conducts evaporation or concentrates phosphoric acid will have the effect of defluorinating to some extent. One of these commenters stated that they have a desulfation process at one of their facilities that reduces F; the commenter also said that this facility's WPPA process line has several filter product tanks, evaporator feed tanks, and evaporator product tanks that could potentially be deemed clarifiers, and thus be pulled into the proposed rule. Another of these commenters argued that it is not logical to include clarifier and defluorination systems in the definition because they operate independently of process lines, and are often operated when feed is not put into process lines (and so are not a process line manufacturing phosphoric acid by reacting phosphate rock and acid). This commenter added that clarifiers often operate more like tanks than process equipment and are not routinely emptied; and emissions from clarifiers are not a function of phosphate feed material to the reactor. The commenter stated that the addition of clarifiers will require significant facility modifications to accommodate emissions testing because although some clarifiers are evacuated to WPPA scrubbers, others are not; and even though some clarifiers have independent evacuation and scrubbing systems, other clarifiers have no evacuation and scrubbing systems. Another commenter also stated that one of their facilities contains clarifiers that are not source tested or vented to a

wet scrubber. This commenter stated that it was not possible for one of their facilities to determine whether they meet the proposed standard for a WPPA process line that includes defluorination processes because their defluorination units are not only integrated with their WPPA process, but also with processes that do not meet the definition of WPPA lines. A commenter added that defluorination processes and clarifiers are often subject to separate emissions control requirements in their title V permits.

Two commenters stated that since the original rule was adopted, the definition of “wet-process phosphoric line” has not been interpreted to extend or apply to clarifiers or defluorination processes. One of these commenters claimed that the only rationale the EPA provides is that the rules were "initially intended" to cover these sources, but argued that neither the original proposal, nor the original final rule mentioned the term "clarifier" or "defluorination process." The commenters requested that the EPA conduct CAA section 112(d)(2) or 112(d)(3) analyses for these new affected units. If the EPA conducts these analyses, and decides to expand the definition of "wet-process phosphoric acid line" to include "clarifiers" and "defluorination processes,” a commenter suggested that the definition exclude units that partially clarify or defluorinate an in-process stream incidentally.

Response. Based on information in process flow diagrams provided by facilities, we initially believed that clarifiers and defluorination systems were part of the WPPA process lines that would have been considered in the original MACT analysis, and, thus, subject to the existing limits. However, the EPA agrees that clarifiers and defluorination systems should not be included in the WPPA process line definition of NESHAP subpart AA, based on the new information available. We also agree that clarifiers and defluorination systems should not be included in the WPPA plant definition of NSPS subpart T.

In the proposed rules, the EPA was specifically referring to defluorination processes that use diatomaceous earth and are included as part of the WPPA process line; however, commenters explained that this type of process is used solely in animal feed production. Because defluorination processes that use diatomaceous earth are not related to phosphoric acid manufacturing, as we first surmised, it is not appropriate to include defluorination processes in the WPPA process line definition.

In response to comments regarding the inclusion of clarifiers in the WPPA process line definition, we searched historical data. Specifically, we reviewed the 1996 memorandum "National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing and Phosphate Fertilizers

Production; Proposed Rules – Draft Technical Support Document and Additional Technical Information" (1996 TSD) to determine if clarifier emissions were included in the MACT floor evaluation for WPPA process lines (the 1996 TSD is item II-B-20 in Docket A-94-02). The 1996 TSD lists, in Attachment 2, the WPPA test data that were assembled for the MACT floor analysis. Based on this review, we were not able to confirm that clarifiers were included as part of the WPPA emissions dataset that was evaluated in order to conduct the MACT floor analysis; therefore, we are not including clarifiers in the WPPA process line definition. Similarly, we are not including clarifiers in the WPPA plant definition of NSPS subpart T.

iii. Generic Process Line Definition -- Comment. One commenter stated that the EPA has introduced ambiguity and vagueness with its definition of a generic "process line" that includes "all equipment associated with the production of any grade or purity of a phosphoric acid product including emission control equipment." The commenter asserted that under this expansive definition, every hypothetical fugitive emission source would have to be accounted for in determining compliance. The commenter explained that the EPA has not collected emission data from "all equipment" nor provided guidance on estimating emissions for such sources in order to allow entities with process lines to demonstrate compliance. The commenter stressed

the "process line" definition, as it currently stands, could include a wash plant that prepares phosphate ore or product storage tanks due to these sources being considered "associated" with production and thus subject to the proposed NESHAP.

Response. The Agency agrees with the commenter that it is not necessary to include the generic "process line" definition, and has removed it from the NESHAP subpart AA final rule. This definition did not provide additional clarity to facilities, and it was not our intent to include emissions from "all equipment" that is "associated" with phosphoric acid production for compliance determinations. Specific definitions are provided for WPPA process line, SPA process line, and PPA process line and, therefore, enough specificity is already provided in the rule.

iv. "Includes, but is Not Limited to" -- Comment. A commenter remarked that incorporating the language "includes, but is not limited to" in the definitions of WPPA, SPA, and PPA process lines is overly broad and creates ambiguity. They stated that industry should have certainty as to the applicability and scope of the rule, but the language "includes, but is not limited to" creates uncertainty as to where the affected equipment begins and ends for purposes of demonstrating compliance.

Response. We agree that this language creates overly broad process line definitions and can lead to regulatory uncertainty for affected sources. Therefore, we are not finalizing the

language "includes, but is not limited to" in the definitions of WPPA, SPA, and PPA process lines of NESHAP subpart AA. Similarly, we are not finalizing the language "includes, but is not limited to" in the definitions of WPPA plant and SPA plant of NSPS subpart T and NSPS subpart U, respectively.

b. Testing, Monitoring, Recordkeeping and Reporting --

i. Pressure Drop Across Absorber -- Comment. Several commenters requested the EPA delete the requirement that pressure drop across an absorber must be greater than 5 inches of water in order to use the option of measuring pressure drop as an operating parameter. These commenters contended that the EPA has not articulated any basis for the requirement. These commenters provided data demonstrating that units operate in compliance with the emission standards when the pressure drop across an absorber is less than 5 inches of water. One of these commenters expressed safety concerns associated with operating scrubbers at higher range pressure drop settings, citing one of its facilities that experienced the entrainment of moisture within the absorbing tower when operating at pressure drops in excess of 8 inches of water, and another that experienced the buildup of excessive fumes on the digester floor when operating the digester scrubber as high as 6 inches of water.

Response. The Agency maintains its determination that pressure drop is not an appropriate monitoring parameter for

absorbers that do not use the energy from the inlet gas to increase contact between the gas and liquid in the absorber (see "Use of Pressure Drop as an Operating Parameter," which is available in Docket ID No. EPA-HQ-OAR-2012-0522). Therefore, we are not revising this proposed amendment.

High-energy (i.e., high pressure drop) absorbers, such as venturi scrubbers, are designed to use the energy in the inlet gas to atomize the liquid stream entering the absorber which increases the contact between the liquid droplets and gas. For these types of absorbers, pressure drop is an appropriate monitoring parameter because changes in pressure drop values indicate that either liquid droplets are not being formed effectively inside the absorber (falling pressure drop), or that the absorber is fouled (increasing pressured drop). Pressure drop is not an appropriate monitoring parameter for low-energy absorbers (i.e., absorbers that are designed to operate with pressure drops of 5 inches of water column or less) because pressure drop is not integral to the mechanism used in the absorber to mix the scrubbing liquid and inlet gas. Furthermore, in a meeting that occurred after the public comment period closed (see "EPA Meeting Minutes for TFI Discussion March 12, 2015," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), industry stated that there is no correlation between pressure drop and absorber performance.

With regard to the safety concerns raised by one commenter when operating low-energy absorbers at high pressure drop settings, the proposed rule (NESHAP subpart AA) did not require low-energy absorbers (i.e., absorbers that are designed to operate with pressure drops of 5 inches of water column or less) to operate at pressure drops greater than 5 inches of water column. Instead, the proposed rule required a different parameter to be monitored for these types of absorbers. Nevertheless, based on other comments received, we are not adopting the proposed monitoring for low-energy absorbers, and have revised the final rule (NESHAP subpart AA) to require liquid-to-gas ratio monitoring for low-energy absorbers in lieu of monitoring influent liquid flow and pressure drop through the absorber (see section V.F.3.b.ii of this preamble for further details).

ii. Absorber Monitoring Options -- Comment. Several commenters called attention to the options of either measuring: (1) The temperature at the wet scrubber gas stream outlet and pressure at the liquid inlet of the absorber, or (2) the temperature at the scrubber gas stream outlet and scrubber gas stream inlet. One of these commenters said that they do not believe monitoring gas temperature in locations of large ambient temperature ranges would provide accurate monitoring of the absorbers performance. The commenter argued that temperature and pressure probes would

be very susceptible to scaling issues. In addition, this commenter contended that liquid inlet pressure does not provide any additional monitoring of the absorber performance, since the inlet liquid flow rate is already measured and monitored. Another commenter contended that the EPA has not provided any data or analysis to show that there is a correlation between temperature and emissions; the commenter stated that they were not aware of any data suggesting a relationship between exit temperature and emissions, or that monitoring temperature difference across an absorber would be effective. One of these commenters argued that they were not in a position to evaluate the difficulties associated with performing the associated monitoring and establishing the requisite operating ranges.

Response. Absorber outlet gas temperature is often used to indicate a change in operation for absorbers that are used to control thermal processes. Because this source category uses the wet process in lieu of a thermal process to produce phosphoric acid, the Agency agrees with the commenters that temperature is not an appropriate monitoring parameter for absorbers used in this source category, and has removed these monitoring options from Table 3 of the final rule (NESHAP subpart AA). However, in light of this comment, the Agency has revised Table 3 of NESHAP subpart AA to require liquid-to-gas ratio monitoring for low-energy absorbers (i.e., absorbers that are designed to operate

with pressure drops of 5 inches of water column or less) in lieu of monitoring influent liquid flow and pressure drop through the absorber. (See section V.F.3.b.i of this preamble for further details of why we are not allowing pressure drop monitoring for low-energy absorbers.) Although liquid flow to the absorber is the most critical parameter for monitoring absorption systems, monitoring the inlet gas flow rate along with the influent liquid flow rate (and determining liquid-to-gas ratio) provides better indication of whether enough water is present to provide adequate scrubbing for the amount of gas flowing through the system. Furthermore, the Agency has revised Table 3 of NESHAP subpart AA to require influent liquid flow and pressure drop monitoring for high-energy (i.e., high pressure drop) absorbers, such as venturi scrubbers; and we are keeping liquid-to-gas ratio monitoring as an option for high-energy absorbers in the final rule. Rather than calculating one minimum flow rate at maximum operating conditions that must be continuously adhered to, this alternative provision (i.e., liquid-to-gas ratio monitoring for high-energy absorbers) allows a facility to optimize the liquid flow for varying gas flow rates. By using a liquid-to-gas ratio, sources may save resources by reducing the liquid rate with reductions in gas flow due to periods of lower production rates.

The Agency believes the cost to implement these finalized monitoring requirements is minimal for facilities. For low-energy absorbers, we are allowing the gas stream to be measured by either measuring the gas stream flow at the absorber inlet or using the design blower capacity, with appropriate adjustments for pressure drop. Therefore, facilities would not need to purchase new equipment to measure gas flow at the inlet of the absorber since they may choose to use design blower capacity. Furthermore, we are not requiring any new monitoring for high-energy absorbers; therefore, these facilities are already equipped to monitor as required in the final rule.

iii. Operating Range Established From a Previous Test --

Comment. One commenter stated that 40 CFR 63.607(a) is somewhat ambiguous, tending to suggest that affected facilities would be immediately required to implement new equipment operating ranges following a source test, even if operating conditions from previous source tests demonstrated compliance with fluoride emission standards. The commenter argued that there is no reason that a new performance test at a new operating range should invalidate a previous performance test at a different operating range.

Response. The Agency has clarified in the final rule at 40 CFR 63.607(a) that during the most recent performance test, if owners or operators demonstrate compliance with the emission

limit while operating their control device outside the previously established operating limit, then limits must be established. Owners or operators must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. Public comments on the 1999 rule stated that the equipment and control devices in these source categories are subject to harsh conditions that cause corrosion and scaling of the process components. Accordingly, the performance of the emissions controls will vary over time, and so might emissions. Thus, the Agency disagrees with the commenter's argument. We have determined that a new performance test conducted under a particular operating range should invalidate a previous operating range that was established under different operating conditions. An operating limit (e.g., an operating range, a minimum operating level, or maximum operating level) is established using the most recent performance test, or in certain instances, a series of tests (potentially including historical tests). However, in all cases, if owners or operators demonstrate compliance with an emission limit during the most recent performance test, and during this performance test an owner's or operator's control device was operating outside the previously established operating limit, the owner or operator

must establish a new operating limit that incorporates that most recent performance test.

iv. Approving Operating Ranges -- Comment. Several commenters support the EPA's proposal to eliminate the requirement that facilities may not implement new operating parameter ranges until the Administrator has approved them, or 30 days have passed since submission of the performance test results. A commenter pointed out that 40 CFR 63.605(d)(1)(iii)(B), as proposed, does not provide the 30-day default period for the effectiveness of the new ranges if the EPA Administrator does not act; therefore, as currently set forth in the proposed rule, sources will be left in limbo waiting for the EPA Administrator to respond before they can implement new ranges. A commenter suggested that the EPA revise the proposed regulatory language to require submission of the new ranges to EPA, but delete the requirement to request and obtain EPA's approval of the new ranges. Similarly, another commenter requested the EPA clarify the process for establishing new equipment operating ranges following source performance testing. This commenter contended that facilities should have the ability to update operating parameters if they desire based on source testing, and the facility should be required to submit the new ranges, but not be required to obtain EPA's approval of the new ranges.

In addition, a commenter requested that the EPA clarify how revising the proposed regulatory language to require submission of the new ranges to the EPA, but deleting the requirement to request and obtain EPA's approval of the new ranges, will affect possible obligations to undertake permit modifications of title V permits under 40 CFR part 70. This commenter stated that such administrative processes are not fully anticipated in the proposed rule.

Response. In the proposed NESHAP subpart AA, the Agency intended that facilities not be required to obtain approval, and, instead, immediately comply with a new operating limit when it is developed and submitted to the Administrator. Therefore, the requirements at proposed 40 CFR 63.605(d)(1)(iii)(B) have been revised in the final rule at 40 CFR 63.605(d)(1)(ii)(B), as the commenter requests, to remove the requirement that facilities must request and obtain approval of the Administrator for changing operating limits. Furthermore, the Agency suggests that the title V permit be modified as soon as the Administrator is notified of a change in an operating limit. The Agency acknowledges that corrections and modifications to permit applications could become a problem for a facility, particularly if the Administrator determines the operating limit is not appropriate after a facility has already applied for the change

to be made in its air permit; however, we expect this scenario to be rare.

c. Translation of Total Fluoride to HF Emission Limits --

Comment. With regard to the proposed NESHAP subpart AA, several commenters opposed the use of EPA Method 320 to test for HF, and supported the retention of a total fluoride compliance standard and associated testing using EPA Method 13A or 13B. These commenters argued that EPA Method 320 leads to unreliable and unrepresentative results because some reactive fluoride compounds in the exhaust may form HF in the sampling equipment. The commenters explained that complex reactions leading to fluoride emissions occur not only in the processing units located at the Phosphoric Acid Manufacturing source category, but also in the scrubber systems designed to remove fluoride from the stack gases. Commenters stated that these reactions result in a mix of gaseous, aerosol, and particle bound fluoride (all three phases) in the stack gas, in the form of compounds like silica tetrafluoride, various fluorosilicate aerosols and/or droplets, ammonium fluoride, ammonium bifluoride, and/or ammonium fluorosilicate; and argued that these compounds have the potential to be captured in a Method 320 sampling equipment, biasing or interfering with the results of the sampling. Commenters specified that the EPA Method 320 sampling conducted in response to the EPA's information requests demonstrated that

SiF_4 readily reacts with water vapor in the stack gas producing HF and silicon hydroxide; and one of the commenters provided information showing that this reaction is dependent on temperature, moisture, and residence time in the sampling system. Additionally, some of the commenters listed technical issues that they encountered during the EPA Method 320 sampling that they conducted in response to EPA's information requests. These commenters recommended certain procedures be followed when conducting EPA Method 320 at the Phosphoric Acid Manufacturing source category; however, they also cautioned that their recommendations would not resolve all of the inherent problems with the sampling and analysis process. The commenters also expressed concern over the increase in testing costs from using EPA Method 320 instead of EPA Method 13A or 13B, citing an increase of at least 3 to 4 times when using EPA Method 320 instead of EPA Method 13B.

We also received comments regarding the option to use Fourier transform infrared spectroscopy (FTIR) HF CEMS as a continuous monitoring compliance approach for HF at NESHAP subpart BB affected sources. One commenter contended that the EPA must consider requiring continuous HF emission monitoring before finalizing the proposal, and pointed out that there is a HF sensor (suitable for 0-10 part per million (ppm) monitoring range and a 0.1 ppm resolution) available for the Ultima X

Series Gas Monitors. Several commenters opposed this option and cited EPA's technical memorandum "Approach for Hydrogen Fluoride Continuous Emission Monitoring and Compliance Determination with EPA Method 320." They argued that the option to use FTIR HF CEMS exceeds the capabilities of existing technology, and that there are no details on the required methods to implement such a system or known field demonstrations of this type of system, and that the option has not been proven.

Finally, one commenter requested the EPA explain its technical basis for abandoning the longstanding total fluoride surrogate for HF. The commenter argued that the EPA has established similar surrogacy relationships to measure HAP in other regulated source categories in the past.

Response. In response to the January 2014 CAA section 114 request, processes at the Phosphoric Acid Manufacturing source category were tested for HF using EPA Method 320. Based on those results, the Agency concluded that moving to a form of the standard that requires HF (the target HAP) to be measured (but retaining the same numeric values as the current total fluoride standards) would be achievable by all facilities. However, in light of information provided by commenters, the Agency has re-evaluated the proposed revision to the standard and determined that EPA Method 320 is not an appropriate test method for accurately measuring HF emissions from process lines in this

specific source category due to the complex and often incomplete chemical reactions with silicon compounds in these sources. Accordingly, the Agency is not adopting the proposed HF standards in NESHAP subpart AA. The Agency has determined that SiF_4 and water are naturally present in the exhaust gases of the processes located at the Phosphoric Acid Manufacturing source category; and these chemical compounds will react to form HF and silicon dioxide in the near field from the emission point on release into the atmosphere. The Agency has reviewed a study[10] stating that the equilibrium of this chemical reaction is highly dependent on temperature such that as temperature increases, the conversion of SiF_4 to HF increases. At high sampling temperatures (i.e., sampling temperatures ranged from about 150 to 300 degrees Fahrenheit during the EPA Method 320 testing conducted pursuant to the January 2014 CAA section 114 requests), there is nearly a complete conversion of SiF_4 to HF. Therefore, as SiF_4 is captured in the EPA Method 320 sampling system, it may react with moisture (water) to form HF, resulting in HF measurements from this source category that are biased. That is, due to the chemical interactions and reactions with moisture at different temperatures, some of the HF emissions detected by EPA Method

[10] Koogler & Associates, Inc. "Technical Evaluation of the Measurement Limitations Associated with Source HF Emissions by EPA Method 320." January 21, 2015.

320 may not represent HF that exists in the exhaust stack or HF released from phosphoric acid production.

As a result of our determination to not adopt the proposed HF standards, the Agency has retained the current total fluoride limits (lb total F/ton P_2O_5 feed) measured using EPA Method 13A or 13B in NESHAP subpart AA as a surrogate for the HAP HF, rather than HF emission limits using EPA Method 320. Furthermore, in light of this conclusion, the Agency is not finalizing an option to use FTIR HF CEMS. In the final rule promulgated on June 10, 1999 (64 FR 31358), the EPA explained that total fluoride was used as a surrogate for HF to establish MACT for emissions from process sources because no direct measurements of HF were available and because the NSPS are based on total F. On November 7, 2014, we proposed HF emission limits in an attempt to base the standard on the specific HAP (HF) that is emitted by this source category because we concluded that new technology (EPA Method 320) allows for direct measurement of HF, and because it is preferred to measure the listed HAP directly when possible. However, in light of the chemical interactions that may occur at this source category during sample collection using EPA Method 320 (skewing HF testing results), we are retaining the long-standing surrogate of total fluoride for HF and the annual testing with EPA Method 13A or 13B. Results from EPA Method 13A or 13B testing include all fluoride compounds,

including HF. Furthermore, since the control of total fluoride and HF from process sources at this source category is accomplished with the same control technology (scrubbers), the total fluoride emission limits will result in installation of the MACT for HF and the same level of HF control will be achieved regardless of how the emission limits are expressed. The use of total fluoride as a surrogate for HF simply changes the metric for compliance demonstration, not the actual level of emission control achieved. As such, we are retaining the existing total fluoride limits for all emission sources in NESHAP subpart AA. Although, at present time, the Agency is not finalizing HF standards in NESHAP subpart AA, it may be possible to do so in a future rulemaking with additional data and specificity on monitoring requirements.

4. What is the rationale for our final decisions regarding these other changes to the Phosphoric Acid Manufacturing NESHAP and NSPS?

For the reasons provided above and in the preamble for the proposed rule, we are finalizing: The proposed requirement in NESHAP subpart AA that pressure drop across an absorber must be greater than 5 inches of water in order to use the option of measuring pressure drop as an operating parameter; the proposed definitions for “superphosphoric acid process line” (in NESHAP subpart AA) and “superphosphoric acid plant” (in NSPS subpart U)

to include oxidation reactors; and other proposed clarifications and corrections.

Additionally, for the reasons provided above, we are making the revisions, clarifications and corrections noted in section V.F.2 in the final rules for NESHAP subpart AA, NSPS subpart T, and NSPS subpart U.

VI. What is the rationale for our final decisions and amendments for the Phosphate Fertilizer Production source category?

For each issue related to the Phosphate Fertilizer Production source category, this section provides a description of what we proposed and what we are finalizing for the issue, the EPA's rationale for the final decisions, and amendments and a summary of key comments and responses. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the Comment Summary and Response document available in the docket.

A. Residual Risk Review for the Phosphate Fertilizer Production Source Category

1. What did we propose pursuant to CAA section 112(f) for the Phosphate Fertilizer Production source category?

Pursuant to CAA section 112(f), we conducted a residual risk review and presented the results of this review, along with our proposed decisions regarding risk acceptability and ample margin of safety, in the November 7, 2014, proposed rule for the

Phosphate Fertilizer Production NESHAP (79 FR 66512). The results of the risk assessment are presented briefly below in Table 4 of this preamble, and in more detail in the residual risk document, "Residual Risk Assessment for Phosphate Fertilizer Production and Phosphate Fertilizer Production Source Categories in support of the July 2015 Risk and Technology Review Final Rule," which is available in the docket for this rulemaking.

Table 4. Human Health Risk Assessment for Phosphate Fertilizer Production

Category & Number of Facilities Modeled	Cancer MIR (in 1 million)		Cancer Incidence (cases per year)	Population with risks of 1-in-1 million or more	Population with risks of 10-in-1 million or more	Max Chronic Non-cancer HI		Worst-case Max Acute Non-cancer HQ
	Based on Actual Emissions	Based on Allowable Emissions				Based on Actual Emissions	Based on Allowable Emissions	
Phosphate Fertilizer (11 facilities)	0.5	0.5	0.001	0	0	0.003	0.003	HQ_{REL} = 0.4 (elemental Hg) HQ_{AEGL}-1 = 0.09 (hydrofluoric acid)
Facility-wide (11 facilities)	0.5	—	0.001	0	0	0.2	—	—

Based on actual emissions for the Phosphate Fertilizer Production source category, the MIR was estimated to be less than 1-in-1 million, the maximum chronic non-cancer TOSHI value was estimated to be up to 0.003, and the maximum off-site acute HQ value was estimated to be up to 0.4. The total estimated national cancer incidence from this source category, based on

actual emission levels, was 0.001 excess cancer cases per year, or one case in every 1,000 years. Based on MACT-allowable emissions for the Phosphate Fertilizer Production source category, the MIR was estimated to be less than 1-in-1 million, and the maximum chronic non-cancer TOSHI value was estimated to be up to 0.003. We also found there were emissions of several PB-HAP with an available RTR multipathway screening value, and, with the exception of Hg compounds, the reported emissions of these HAP (i.e., lead compounds, and cadmium compounds) were below the multipathway screening value for each compound. One facility emitted divalent Hg (Hg^{2+}) above the Tier I screening threshold level, exceeding the screening threshold by a factor of 20. Consequently, we conducted a Tier II screening assessment for Hg^{2+}. This assessment uses the assumption that the biological productivity limitation of each lake is 1 gram of fish per acre of water, meaning that in order to fulfill the adult ingestion rate, a fisher would need to fish from 373 total acres of lakes. The result of this analysis was the development of a site-specific emission screening threshold for Hg^{2+}. We compared this Tier II screening threshold for Hg^{2+} to the facility's Hg^{2+} emissions. The facility's emissions exceeded the Tier II screening threshold by a factor of 3.

Additionally, to refine our Hg Tier II Screen for this facility, we first examined the set of lakes from which the

angler ingested fish. Any lakes that appeared to not be fishable or publicly accessible were removed from the assessment, and the screening assessment was repeated. After we made the determination the three critical lakes were fishable, we analyzed the hourly meteorology data from which the Tier II meteorology statistics were derived. Using buoyancy and momentum equations from literature, and assumptions about facility fenceline boundaries, we estimated by hour the height achieved by the emission plume before it moved laterally beyond the assumed fenceline. If the plume height was above the mixing height, we assumed there was no chemical exposure for that hour. The cumulative loss of chemical being released above the mixing height reduces the exposure and decreases the Tier II screening quotient. Although the refined Tier II analysis for Hg emissions indicated a 23-percent loss of emissions above the mixing layer due to plume rise, this reduction still resulted in an angler screening non-cancer value equal to 2.

For this facility, after we performed the lake and plume rise analyses, we reran the relevant Tier II screening scenarios for the travelling subsistence angler in TRIM.FaTE with the same hourly meteorology data and hourly plume-rise adjustments from which the Tier II meteorology statistics were derived. The use of the time-series meteorology reduced the screening value further to a value of 0.6. For this source category our analysis

indicated no potential for multipathway impacts of concern from this facility. The maximum facility-wide MIR was less than or equal to 1-in-1 million and the maximum facility-wide TOSHI was 0.2. We weighed all health risk factors in our risk acceptability determination, and we proposed that the residual risks from the Phosphate Fertilizer Production source category are acceptable.

We then considered whether the Phosphate Fertilizer Production NESHAP provides an ample margin of safety to protect public health and prevents, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. In considering whether the standards should be tightened to provide an ample margin of safety to protect public health, we considered the same risk factors that we considered for our acceptability determination and also considered the costs, technological feasibility and other relevant factors related to emissions control options that might reduce risk associated with emissions from the source category. We proposed that the current standards provided an ample margin of safety to protect public health. With respect to adverse environmental effects, none of the individual modeled concentrations for any facility in the source category exceeded any of the ecological benchmarks (either the LOAEL or NOAEL). Based on the results of our screening analysis for risks to the

environment, we also proposed that the current standards prevent an adverse environmental effect.

2. How did the risk review change for the Phosphate Fertilizer Production source category?

The residual risk review for the Phosphate Fertilizer Production source category did not change since proposal (79 FR 66512). Accordingly, we are not tightening the standards under section 112(f)(2) based on the residual risk review, and are thus readopting the existing standards under section 112(f)(2).

3. What key comments did we receive on the risk review, and what are our responses?

The comments received on the proposed residual risk review were generally supportive of our determination of risk acceptability and ample margin of safety analysis. However, we received several comments requesting we make changes to the residual risk review, including:

- Update the residual risk review with the recommendations and information from the NAS;
- Incorporate the best currently available information on children's exposure to lead, and go beyond using the 2008 Lead NAAQS;
- Reevaluate whether the residual risk review is consistent with the key recommendations made by the SAB;
- Clarify in the rulemaking docket that data received by industry were commensurate with the relevant statutory obligations;
- Revise HF emission data because they are not representative of actual HF emissions, but rather overestimate emissions

causing the residual risk review to have an overly conservative bias;

- Reconsider the assumption used in the NESHAP residual risk assessment that all chromium is hexavalent chromium;
- Revise certain stack parameters used in the analysis;
- Clarify meteorological data used in the analysis;
- Adequately explain rationale for the maximum 1-hour emission rate used for determining potential acute exposures;
- Clarify the selection of ecological assessment endpoints; and
- Provide some quantitative or qualitative rationale for the characterization of the exposure modeling uncertainty.

We evaluated the comments and determined that no changes were needed. Since none of these comments had an effect on the final rule, their summaries and corresponding EPA responses are not included in this preamble. A summary of these comments and our responses can be found in the Comment Summary and Response document available in the docket for this action (EPA-HQ-OAR-2012-0522).

4. What is the rationale for our final approach and final decisions for the risk review?

For the reasons explained in the proposed rule, we determined that the risks from the Phosphate Fertilizer Production source category are acceptable, the current emissions standards provide an ample margin of safety to protect public health, and prevent an adverse environmental effect. Since proposal, neither the risk assessment nor our determinations regarding risk acceptability, ample margin of safety or adverse

environmental effects have changed. Therefore, pursuant to CAA section 112(f)(2), we are finalizing our residual risk review as proposed.

B. Technology Review for the Phosphate Fertilizer Production Source Category

1. What did we propose pursuant to CAA section 112(d)(6) for the Phosphate Fertilizer Production source category?

Pursuant to CAA section 112(d)(6), we conducted a technology review, which focused on identifying and evaluating developments in practices, processes, and control technologies for the emission sources in the Phosphate Fertilizer Production source category. At proposal, we did not identify cost-effective developments in practices, processes, or control technologies that warrant revisions to the NESHAP for this source category. More information concerning our technology review can be found in the memorandum, "CAA Section 111(b)(1)(B) and 112(d)(6) Reviews for the Phosphate Fertilizer Production and Phosphate Fertilizer Production Source Categories," which is available in the docket, and in the preamble to the proposed rule, 79 FR 66538-66539.

2. How did the technology review change for the Phosphate Fertilizer Production source category?

The technology review for the Phosphate Fertilizer Production source category did not change since proposal (79 FR

66512). Therefore, we are not revising NESHAP subpart BB based on the technology review.

3. What key comments did we receive on the technology review, and what are our responses?

Commenters agreed with our conclusion that there are no new cost-effective developments in practices, processes, or control technologies that can be applied to the Phosphate Fertilizer Production source category that would reduce HAP emissions below current levels.

4. What is the rationale for our final approach for the technology review?

For the reasons explained in the proposed rule, we concluded that additional standards are not necessary pursuant to CAA section 112(d)(6); therefore, we are not finalizing changes to NESHAP subpart BB as part of our technology review.

C. NSPS Review for the Phosphate Fertilizer Production source category

The NSPS review focused on the emission limitations that have been adequately demonstrated to be achieved in practice, taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements. Determining the BSER that has been adequately demonstrated and the emission limitations achieved in practice necessarily involves consideration of emission reduction methods

in use at existing phosphate fertilizer production plants. To determine the BSER, the EPA performed an extensive review of several recent sources of information including a thorough search of the RBLC, section 114 data received from industry and other relevant sources.

Our review considered the emission limitations that are currently achieved in practice, and found that more stringent standards are not achievable for this source category. When evaluating the emissions from various process lines, we observed differences in emissions levels, but did not identify any patterns in emission reductions based on control technology configuration. More information concerning our NSPS review can be found in the memorandum, "CAA Section 111(b)(1)(B) and 112(d)(6) Reviews for the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production Source Categories." Though some of the sources are emitting at levels well below the current NSPS, other sources are not. We evaluated emissions based on control technologies and practices used by facilities, and found that the same technologies and practices yielded different results for different facilities. Therefore, we determined that we cannot conclude that new and modified sources would be able to achieve a more stringent NSPS. As explained in the proposed rule, all Phosphate Fertilizer Production NSPS (under subpart V, subpart W, and subpart X) emission sources, and the control

technologies that would be employed, are the same as those for the NESHAP regulating phosphate fertilizer plants, such that we reached the same conclusion that there are no identified developments in technology or practices that results in cost-effective emission reductions strategies. Therefore, we are finalizing our determination that revisions to NSPS subpart V, subpart W, and subpart X standards are not appropriate pursuant to CAA section 111(b)(1)(B).

D. Startup, Shutdown, and Malfunction Provisions for the Phosphate Fertilizer Production Source Category

1. What SSM provisions did we propose for the Phosphate Fertilizer Production source category?

To address the U.S. Court of Appeals for the District of Columbia Circuit vacatur of portions of the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM, Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008), we proposed to revise and add certain provisions to the NESHAP subpart BB. We proposed to revise the General Provisions table (appendix A of NESHAP subpart BB) to change several references related to requirements that apply during periods of SSM. We also proposed to add the following provisions to the rule: (1) Work practice standards for periods of startup and shutdown in lieu of numeric emission limits; (2) the general duty to minimize emissions at all times; (3) performance testing

conditions requirements; (4) site-specific monitoring plan requirements; and (5) malfunction recordkeeping and reporting requirements. These proposed changes are discussed in more detail in section V.E of this preamble where we describe these same proposed changes for NESHAP subpart AA.

2. How did the SSM provisions change for the Phosphate Fertilizer Production source category?

We are finalizing the proposed work practice standards for periods of startup and shutdown; however, in consideration of comments received during the public comment period for the proposed rulemaking (as discussed in sections VI.D.3.a and VI.D.3.b of this preamble), we are making changes to this work practice in order to clarify the standard applies in lieu of numeric emission limits and how compliance with the standard is demonstrated. Additionally, as discussed in section VI.D.3.c of this preamble, we added definitions of “startup” and “shutdown” to provide additional clarity regarding when startup begins and ends, and when shutdown begins and ends.

3. What key comments did we receive on the SSM provisions, and what are our responses?

Comments were received regarding the proposed revisions to remove the SSM exemptions for the Phosphate Fertilizer Production source category, and the proposed work practice standards for periods of startup and shutdown. The following is

a summary of some of the comments specific to the proposed work practice standards and our response to those comments. Other comments and our specific responses to those comments can be found in the Comment Summary and Response document available in the docket for this action (EPA–HQ–OAR–2012–0522).

a. Work Practice Standard In Place Of Emission Limits -- Comment. One commenter argued that the EPA should specify that the proposed work practices for plant startup and shutdown periods apply "in lieu of" any other emission standards, and that such periods should not be counted for testing, monitoring, or operating parameter requirements. The commenter noted that the proposed rule at 40 CFR 63.622(d) requires the use of work practices "to demonstrate compliance with any emission limits" during periods of startup and shutdown. The commenter agrees with the EPA's conclusion that it is not feasible to apply numeric limits to startup and shutdown because certain variables required to calculate emissions would be zero during such periods. The commenter also agreed with the EPA that existing emission control devices would still be effective during periods of startup or shutdown, if activated. However, the commenter recommended that the rule should clarify that startup and shutdown events should not be required to comply with the monitoring and operating parameter requirements because startup and shutdown events generally are not representative operating

conditions for other compliance purposes, such as emissions testing. Instead, the commenter, as well as a second commenter, recommended that because the startup and shutdown periods are not representative, the rule should only require that (1) All emission control devices be kept active, and (2) owners and operators follow the general duty to control emissions, and owners and operators should not be required to monitor operating parameters during startup and shutdown periods.

The commenter argued that the approach in the proposed rule at 40 CFR 63.622(d) to require the use of work practices "to demonstrate compliance with any emission limits" during periods of startup and shutdown is "directly inconsistent" with the approach that the EPA has applied to other source categories, where such practices clearly were prescribed "in lieu of" numeric emission limits that would otherwise apply. (The commenter cites, for example, 78 FR 10015, February 12, 2013.) According to the commenter, the EPA made it clear in other industries' rules that such work practice standards apply "in place of" or "in lieu of" numeric standards, including with respect to monitoring and recordkeeping requirements. (See id. at 10013 and 10015.) The commenter argues that according to the preamble language cited for those other industries, "there will no longer be a numeric emission standard applicable during startup and shutdown," and the EPA recognizes that "the

recordkeeping requirement must change to reflect the content of the work practice standard"(Id. at 10014).

Therefore, the commenter recommended that the EPA should clearly explain that work practices are not applied to "demonstrate compliance" with numeric limits under subpart BB, which the EPA acknowledges are "not feasible" for startup and shutdown periods, and, instead, the work practices should be written to apply "in lieu of" the numeric limits during those periods. The commenter argues that without this clarification, it will appear that both the numeric standards and the work practice standards would apply during startup and shutdown. The commenter suggests that this can be corrected in the rule by using the "in lieu of" language used for other industries.

Response. The commenter is correct that our intention at proposal was that the numeric emission limits would not apply during periods of startup and shutdown, but that facilities would comply with the work practice instead. We did not intend for the work practice to be a method to demonstrate compliance with the emission limit. We are replacing the phrasing "to demonstrate compliance" with "in lieu of" as this language is more consistent with our original intent. Accordingly, in the final rule, 40 CFR 63.622(d) specifies that the emission limits of 40 CFR 63.622(a) do not apply during periods of startup and shutdown. Instead, owners and operators must follow the work

practice specified in 40 CFR 63.622(d). See section VI.D.3.b of this preamble for our response to commenters argument that owners and operators should not be required to monitor operating parameters during startup and shutdown periods.

b. Applicability Of Operating Limits -- Comment. Two commenters recommended that the EPA amend the rule to make clear that the work practice standards for startup and shutdown also apply in lieu of the parametric monitoring requirements set forth in NESHAP subpart BB and make explicit that parametric operating requirements do not apply during times of startup and shutdown.

One commenter argued that when the EPA established the flow rate and pressure drop parametric monitoring requirements in its 1999 final rule, the EPA concluded that requiring continuous monitoring of these parameters "help[ed] assure continuous compliance with the emission limit" (64 FR 31365, June 10, 1999). The commenter also asserted that the rule specifies that "[t]he emission limitations and operating parameter requirements of this subpart do not apply during periods of startup, shutdown, or malfunction . . . " (40 CFR 63.620(e)). The commenter argued that this was a reasonable action because the operating parameter ranges are established during annual performance tests, and these tests cannot be performed during startup and shutdown conditions.

The commenter suggested that in the proposed rule, the EPA exempted compliance with the emission limits during startup and shutdown periods, imposed work practice standards in lieu thereof, and retained the prohibition on conducting a performance test during periods of startup or shutdown (79 FR 66582 (proposed 40 CFR 63.626(d)). The commenter suggested that the proposed rule is silent on the applicability of the parametric monitoring requirements during startup and shutdown. The commenter asserted that because the parametric monitoring provisions provide an inference of compliance with the emission limits (64 FR 31365, June 10, 1999), and these emission limits do not apply during startup and shutdown, the commenter concluded that the parametric monitoring provisions similarly should not apply during startups and shutdowns.

The commenters pointed to two recent EPA NESHAP rulemakings to support their conclusion. First, the commenters argued that in its industrial, commercial and institutional boilers and process heaters NESHAP reconsideration proposal (hereinafter, the "Boiler NESHAP"), the EPA, responding to a comment soliciting clarification "that the operating limits and opacity limits do not apply during periods of startup and shutdown," stated that with the finalization of work practice standards, "EPA agrees that the requested clarification is what was intended in the final rule" (76 FR 80598 and 80615, December 23,

2011.) The commenters asserted that to this end, in its response to the reconsideration, the EPA made clear that affected sources must comply with "all applicable emissions and operating limits at all times the unit is operating except for periods that meet the definitions of startup and shutdown in this subpart, during which times you must comply with these work practices" (78 FR 7138 and 7142, January 31, 2013.) The commenters noted that in the Boiler NESHAP, the EPA required the implementation of work practice standards in lieu of compliance with the operating parameter requirements during startup and shutdown by (1) Excluding periods of startup and shutdown from the averaging period (Id. at 7187, 40 CFR 63.7575, the definition of a 30-day rolling average" excludes "hours during startup and shutdown"), and (2) expressly stating that the "standards" (the emission limits and operating requirements) do not apply during periods of startup or shutdown. (Id. at 7163, 40 CFR 63.7500(f), titled "What emission limitations, work practice standards, and operating limits must I meet?" applies "at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 of this subpart").

Second, the commenters argued that in its Portland Cement NESHAP, the EPA specified an operating limit for kilns, identified as a temperature limit established during a

performance test, and that the temperature limit applied at all times the raw mill is operating, "except during periods of startup and shutdown" (78 FR 10039, February 12, 2013, 40 CFR 63.1346(a)(1).) Further, for the continuous monitoring requirements, including operating limits, the Portland Cement NESHAP required operating of the monitoring system at all times the affected source is operating, "[e]xcept for periods of startup and shutdown" (Id. at 10041, 40 CFR 63.1348(b)(1)(ii).)

The commenters argued that given the EPA's conclusion in the Proposed Rule that the emission limits should not apply during startup and shutdown, and because the parametric monitoring requirements are established during a performance test (which cannot be performed during a startup or a shutdown) and used to infer compliance with the emission limits, the EPA should make clear in the final rule that the operating parameters requirements do not apply during a startup or a shutdown. The commenter recommended that the EPA should make this explicit: (1) In the operating and monitoring requirement section of subpart BB (proposed 40 CFR 63.625), and (2) by defining the averaging period (currently daily) as excluding periods of startup and shutdown (Proposed 40 CFR part 63, subpart BB, Table 4). As an alternative, the commenters recommended that if the EPA continues to require compliance with the parametric monitoring requirements during startup and

shutdown periods, then the EPA should adopt a longer averaging period, from daily to 30 days, to allow for the effects of startups and shutdowns to be reduced by a longer period of steady-state operations. The commenter noted that the Boiler NESHAP has a 30-day averaging period for pressure drop and liquid flow rate, and excludes periods of startup and shutdown from the averaging period (40 CFR 63.7575, definition of "30-day rolling average" and 40 CFR part 63, subpart DDDDD, Table 4). The commenter stated that a 30-day averaging period would be substantially more stringent than the Boiler NESHAP approach since it would include periods of startup and shutdown , while at the same time avoid misleading "exceedances" caused by the inclusion of periods of startup and shutdown compared to daily average parametric limits.

Response. We disagree with the commenters about the applicability of the operating limits. Based on these comments, we have clarified in the final rule at 40 CFR 63.622(d) that to comply with the work practice during periods of startup and shutdown, facilities must monitor the operating parameters specified in Table 3 to subpart BB and comply with the operating limits specified in Table 4 of subpart BB. The purpose of the work practice is to ensure that the air pollution control equipment that is used to comply with the emission limit during normal operations is operated during periods of startup and

shutdown. Monitoring of control device operating parameters is necessary to demonstrate compliance with the work practice. We have concluded that it is reasonable for the control device at phosphate fertilizer production processes to meet the same operating limits during startup and shutdown that apply during normal operation, and that it is not necessary to specify different averaging times for periods of startup and shutdown. Meeting the operating limits of Table 4 of subpart BB will ensure that owners and operators meet the General Duty requirement to operate and maintain the affected source and associated air pollution control equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions.

The analogies that the commenters made to the Boiler NESHAP and the Portland Cement NESHAP are not relevant to this rulemaking. In each rulemaking, we consider the feasibility of applying standards during startup and shutdown based on relevant process considerations for each source category, the pollutants regulated, and control devices on which the rule is based. In developing this rule, we obtained information on the operation of control devices during startup and shutdown periods in the CAA section 114 survey issued to the phosphate fertilizer production industry. Based on survey results, we concluded that for this source category, control devices (i.e., absorbers)

could be operated during periods of startup and shutdown. We found no indication that process operations during startup and shutdown would interfere with the ability to operate the relevant control devices according to good engineering practice. Moreover, the commenters provided no technical justification as to why a different operating limit is needed during startup and shutdown.

Regarding the comparison to the industrial boiler NESHAP, the operation of boilers and their associated control devices are different than phosphate fertilizer production plants. While boiler control devices do not have to comply with specific operating limits during startup or shutdown, they must meet a work practice that includes firing clean fuels, operating relevant control devices (e.g., absorbers) as expeditiously as possible, and monitoring the applicable operating parameters (e.g., flow rate) to demonstrate that the control devices are being operated properly. The EPA currently is reconsidering the control requirements for industrial boilers during startup and shutdown (80 FR 3090, January 21, 2015). In the proposed action on reconsideration, we pointed out that some of the control devices used for boilers cannot be operated during the full duration of startup and shutdown because of safety concerns and the possibility of control equipment degradation due to fouling and corrosion. The control devices used for phosphate fertilizer

production do not pose these same risks. Likewise, the fact that the Portland Cement NESHAP does not require monitoring of kiln temperature during startup and shutdown is not relevant. The Portland Cement NESHAP requires maintaining a kiln temperature as part of the MACT operating limit. The operating limit for Portland Cement does not apply during startup and shutdown because it is not physically possible to maintain a constant temperature during startup and shutdown of a kiln. In contrast, the feasibility of operating the control devices used to control HAP emissions from phosphate fertilizer production is not limited by specific process operating conditions. Therefore, it is feasible to operate the devices during startup and shutdown, and we have determined that it is reasonable to do so considering cost, nonair health and environmental impacts, and energy requirements.

c. Definition Of Startup And Shutdown -- Comment. Several commenters stated that it is not feasible to base the conclusion of a "shutdown" on the point at which all feed has "been processed." Instead, they suggested that the EPA should clarify the work practice standard of keeping all emission control equipment active during shutdowns. The commenters reported that facilities in the industry consider the commencement of "shutdown" as the moment at which the plant ceases adding feed to the affected process, rather than basing shutdown on when all

feed materials have been processed through the process. The commenters recommended that the EPA should define "shutdown" to begin when the facility ceases adding feed to an affected process line, and to conclude when the affected process line equipment is deactivated, even though some feed or residues may still be present within particular parts of the process.

One of the commenters also noted that it is common practice to have short-term shutdown of process inputs for temporary maintenance work (including work on emission control equipment) where the entire system is not emptied. In these cases, feed of phosphoric acid and ammonia to the process is suspended as is flow from the reactor to the granulator. The commenter argued that because the source of fluoride to the system has ceased and dust generating material flows are suspended, there should be no significant source of emissions to control, and it is not necessary to require the utilization of control devices until all feed material has been processed. Instead, the commenter recommended that an affected entity should be allowed to turn off control devices when reactor and granulator feeds have been stopped, unless the system is being emptied, in which case control devices should be required as long as the material handling system is in operation.

Response. We agree with the commenters that the rule needs to have a more precise definition of startup and shutdown that

more clearly and reasonably establishes the times when the work practice applies and when the emission limits apply. Accordingly, we added a definition of "startup" and "shutdown" in the Definitions section of the final rule to specify when startup begins and ends, and when shutdown begins and ends.

Based on additional information provided by industry (see "Email Correspondence Received After Comment Period re Startup Shutdown (May 5, 2015)," which is available in Docket ID No. EPA-HQ-OAR-2012-0522), we are including a definition of startup in the final rule. The final rule defines startup as commencing when any feed material is first introduced into an affected source and ends when feed material is fully loaded into the affected source. Regarding shutdown, we agree with the commenters that it is not feasible to process all feed material from a process prior to shutting down most equipment at a facility. Such requirement would imply that the control device must be operated after the shutdown ends. The final rule defines shutdown as commencing when the facility ceases adding feed to an affected source and ends when the affected source is deactivated, regardless of whether feed material is present in the affected source. This definition will address concerns about temporary shutdowns as well as shutdowns of longer duration.

In addition, the final rule at 40 CFR 63.622(d) specifies that any control device used at the affected source must be

operated during the entire period of startup and shutdown, and must meet the operating limits in Table 4 of the rule.

4. What is the rationale for our final decisions for the SSM provisions?

For the reasons provided above and in the preamble for the proposed rule, we are finalizing the proposed revisions to the General Provisions table (appendix A of NESHAP subpart BB) to change several references related to requirements that apply during periods of SSM. For these same reasons, we are also finalizing the addition of the following proposed provisions to NESHAP subpart BB: (1) Work practice standards for periods of startup and shutdown in lieu of numeric emission limits; (2) the general duty to minimize emissions at all times; (3) performance testing conditions requirements; (4) site-specific monitoring plan requirements; and (5) malfunction recordkeeping and reporting requirements.

E. Other Changes Made to the Phosphate Fertilizer Production NESHAP and NSPS

1. What other changes did we propose for the Phosphate Fertilizer Production NESHAP and NSPS?

a. Clarifications to Applicability and Certain Definitions --

i. NESHAP Subpart BB. As stated in the preamble to the proposed rule, to ensure the emission standards reflect inclusion of HAP emissions from all sources in the source category, we proposed

to clarify the applicability of the NESHAP to include reaction products of ammonia and phosphoric acid, and not just diammonium and monoammonium phosphate.

For consistency between NESHAP subpart AA and NESHAP subpart BB, we also proposed conditions in NESHAP subpart BB that exclude (like NESHAP subpart AA does) the use of evaporative cooling towers for any liquid effluent from any wet scrubbing device installed to control HF emissions from process equipment. Lastly, we proposed to amend the definitions of "diammonium and/or monoammonium phosphate process line," "granular triple superphosphate process line," and "granular triple superphosphate storage building" to include relevant emission points, and to remove text from the applicability section that is duplicative of the revised definitions.

ii. NSPS Subpart V. We did not propose changes to applicability or definitions in NSPS subpart V.

iii. NSPS Subpart W. We proposed changing the word "cookers" as listed in 40 CFR 60.230(a) to "coolers" in order to correct the typographical error.

iv. NSPS Subpart X. We did not propose changes to applicability or definitions in NSPS subpart X.

b. Testing, Monitoring, Recordkeeping and Reporting --

i. NESHAP Subpart BB. As stated in the preamble to the proposed rule, to provide flexibility, we proposed several monitoring

options, including pressure and temperature measurements, as alternatives to monitoring of absorber differential pressure. We also proposed monitoring the absorber inlet gas flow rate along with the influent absorber liquid flow rate (and determining liquid-to-gas ratio) in lieu of monitoring only the absorber inlet liquid flow rate.

In addition, we proposed removing the requirement that facilities may not implement new operating parameter ranges until the Administrator has approved them, or 30 days have passed since submission of the performance test results. We proposed that facilities must immediately comply with new operating ranges when they are developed and submitted; and new operating ranges must be established using the most recent performance test conducted by a facility, which allows for changes in control device operation to be appropriately reflected.

We also proposed monitoring requirements for fabric filters in NESHAP subpart BB because we identified two processes that used fabric filters rather than wet scrubbing as control technology.

As stated in the preamble to the proposed rule, we modified the language for the conditions under which testing must be

conducted to require that testing be conducted at "maximum representative operating conditions" for the process.[11]

In keeping with the general provisions for CMS (including CEMS and CPMS), we proposed the addition of a site-specific monitoring plan and calibration requirements for CMS. Provisions were also proposed that included electronic reporting of stack test data. We also proposed modifying the format of NESHAP subpart BB to reference tables for emissions limits and monitoring requirements.

Finally, we proposed HF standards in NESHAP subpart BB by translating the current total fluoride limits (lb total F/ton P_2O_5 feed) into HF limits (lb HF/ton P_2O_5 feed). To comply with HF standards, we proposed that facilities use EPA Method 320.

ii. NSPS Subpart V. We proposed new monitoring and recordkeeping requirements for any granular diammonium phosphate plant that commences construction, modification or reconstruction after November 7, 2014 to ensure continuous compliance with the standard. As stated in the preamble to the proposed rule, to ensure that the process scrubbing system is properly maintained over time; ensure continuous compliance with standards; and improve data accessibility, we proposed the owner or operator establish an allowable range for the pressure drop through the

[11] Based on the EPA memorandum, "Issuance of the Clean Air Act National Stack Testing Guidance," dated April 27, 2009.

process scrubbing system. We also proposed that the owner or operator keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations.

For consistency with terminology used in the associated NESHAP subpart BB, we proposed changing the term "scrubbing system" to "absorber" in NSPS subpart V.

iii. NSPS Subpart W. We proposed new monitoring and recordkeeping requirements for any TSP plant that commences construction, modification or reconstruction after November 7, 2014 to ensure continuous compliance with the standard. As stated in the preamble to the proposed rule, to ensure that the process scrubbing system is properly maintained over time; ensure continuous compliance with standards; and improve data accessibility, we proposed the owner or operator establish an allowable range for the pressure drop through the process scrubbing system. We also proposed that the owner or operator keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations.

For consistency with terminology used in the associated NESHAP subpart BB, we proposed changing the term "process scrubbing system" to "absorber" in NSPS subpart W.

iv. NSPS Subpart X. We proposed new monitoring and recordkeeping requirements for any GTSP storage facility that commences construction, modification or reconstruction after November 7,

2014 to ensure continuous compliance with the standard. As stated in the preamble to the proposed rule, to ensure that the process scrubbing system is properly maintained over time; ensure continuous compliance with standards; and improve data accessibility, we proposed the owner or operator establish an allowable range for the pressure drop through the process scrubbing system. We also proposed that the owner or operator keep records of the daily average pressure drop through the process scrubbing system, and keep records of deviations.

For consistency with terminology used in the associated NESHAP subpart BB, we proposed changing the term "process scrubbing system" to "absorber" in NSPS subpart X.

2. How did the provisions regarding these other proposed changes to the Phosphate Fertilizer Production NESHAP and NSPS change since proposal?

a. Clarifications to Applicability and Certain Definitions --

i. NESHAP Subpart BB. In consideration of comments received during the public comment period for the proposed rulemaking, we are defining "phosphate fertilizer process line" and "phosphate fertilizer production plant" separately as discussed in section VI.E.3.a.i of this preamble. We are also revising rule language at 40 CFR 63.620(b)(1), 63.622(a), 63.622(a)(1), 63.622(a)(2), 63.625(a), 63.626(f), in Table 1, and in Table 2 to accommodate this change. We are also removing the proposed language

"includes, but is not limited to" in the definition of DAP and/or MAP process line for reasons discussed in section VI.E.3.a.ii of this preamble.

ii. NSPS Subpart V. We are not making changes to applicability or definitions in NSPS subpart V.

iii. NSPS Subpart W. We are not making changes to applicability or definitions in NSPS subpart W.

iv. NSPS Subpart X. We are not making changes to applicability or definitions in NSPS subpart X.

b. Testing, Monitoring, Recordkeeping and Reporting.

i. NESHAP Subpart BB. We have not made any changes to our proposed determination that pressure drop is not an appropriate monitoring parameter for absorbers that are designed to operate with pressure drops of 5 inches of water column or less. However, in consideration of comments received during the public comment period for the proposed rulemaking, we are not adopting the proposed options to monitor: (1) The temperature at the wet scrubber gas stream outlet and pressure at the liquid inlet of the absorber, or (2) the temperature at the scrubber gas stream outlet and scrubber gas stream inlet. Instead, we have revised Table 3 of NESHAP subpart BB to require liquid-to-gas ratio monitoring for low-energy absorbers, and influent liquid flow and pressure drop monitoring for high-energy absorbers; and we are keeping liquid-to-gas ratio monitoring as an option for

high-energy absorbers in the final rule. (See sections VI.E.3.b.i and VI.E.3.b.ii of this preamble for details.)

In addition to these revisions, we are making corrections at 40 CFR 63.627(a) to clarify the procedures for establishing a new operating limit based on the most recent performance test. We are also revising the requirements at 40 CFR 63.625(d)(1)(ii)(B) to remove the requirement that facilities must request and obtain approval of the Administrator for changing operating limits. (See section VI.E.3.b.iv and VI.E.3.b.v of this preamble for details.)

Also, for reasons discussed in the Comment Summary and Response document available in the docket, we are revising the annual testing schedule in the final rule at 40 CFR 63.626(b), and the terminology for "maximum representative operating conditions" in the final rule at 40 CFR 63.626(d).

We are not making any changes to the proposed addition of a site-specific monitoring plan and calibration requirements for CMS. We are also keeping the proposed term "absorber" in lieu of "scrubber," as well as the proposed format of NESHAP subpart BB to reference tables for emissions limits and monitoring requirements.

Lastly, we are retaining the current total fluoride limits and not adopting the proposed HF standards and associated EPA

Method 320 testing in NESHAP subpart BB (see section VI.E.3.c of this preamble for details).

ii. NSPS Subpart V. We are not making changes to the proposed monitoring and recordkeeping requirements for any granular diammonium phosphate plant that commences construction, modification or reconstruction after **[insert date of publication in the Federal Register]** to ensure continuous compliance with the standard. We are also keeping the proposed term "absorber" in lieu of "scrubbing system."

iii. NSPS Subpart W. We are not making changes to the proposed monitoring and recordkeeping requirements for any TSP plant that commences construction, modification or reconstruction after [insert **date of publication in the Federal Register**] to ensure continuous compliance with the standard. We are also keeping the proposed term "absorber" in lieu of "process scrubbing system."

iv. NSPS Subpart X. We are not making changes to the proposed monitoring and recordkeeping requirements for any GTSP storage facility that commences construction, modification or reconstruction after [**insert date of publication in the Federal Register**] to ensure continuous compliance with the standard. We are also keeping the proposed term "absorber" in lieu of "process scrubbing system."

3. What key comments did we receive on the other changes to the Phosphate Fertilizer Production NESHAP and NSPS, and what are our responses?

Several comments were received regarding the proposed clarifications to applicability and certain definitions, revisions to testing, monitoring, recordkeeping and reporting, translation of total fluoride to HF emission limits, and revisions to other provisions for the Phosphate Fertilizer Production source category. The following is a summary of several of these comments and our response to those comments. Other comments received and our responses to those comments can be found in the Comment Summary and Response document available in the docket for this action (EPA–HQ–OAR–2012–0522).

a. Applicability Clarifications and Certain Definitions --

i. Phosphate Fertilizer Process Line -- Comment. Several commenters disapproved of the proposed expansion of the applicability provision for DAP and MAP process lines in 40 CFR 63.620(b)(1) to include "any process line that produces a reaction product of ammonia and phosphoric acid." One commenter asserted that the expanded language could include production of non-granular products that were in existence since the original NESHAP but not regulated by it, and EPA provided no basis for expansion of applicability to bring in these processes now. Other commenters also reiterated that the proposed applicability

provision for DAP and MAP process lines was vague and overbroad and would inadvertently regulate any process that combines ammonia and phosphoric acid regardless of the end-product or purpose of facility. One commenter recommended a change in the definition to clarify that subpart BB applies specifically to solid, granulated phosphate products to avoid inclusion of liquid fertilizer products in the proposed rule.

Response. The Agency agrees with the commenter that the proposed language could be interpreted to include production of non-granular products at a phosphate fertilizer production plant. It was not our intent to expand the applicability of 40 CFR subpart BB to include the production of non-granular products at a phosphate fertilizer production plant; therefore, we are revising the definitions of "phosphate fertilizer process line" and "phosphate fertilizer production plant" in the final rule at 40 CFR 63.621 to reference granular phosphate fertilizer. Also, the definitions of phosphate fertilizer process line and phosphate fertilizer production plant were defined together at proposal (phosphate fertilizer process line or production plant), but are defined separately in the final rule for clarity. The definition of phosphate fertilizer process line means "any process line that manufactures a granular phosphate fertilizer by reacting phosphoric acid with ammonia. A phosphate fertilizer process line includes: reactors,

granulators, dryers, coolers, screens, and mills." The definition of phosphate fertilizer production plant means "any production plant that manufactures a granular phosphate fertilizer by reacting phosphoric acid with ammonia."

As an outgrowth of this comment, the Agency revised rule language surrounding the use of "phosphate fertilizer process line," to create clarity and consistency in rule language. Specifically, where the phrase "diammonium and/or monoammonium phosphate process line and any process line that produces a reaction product of ammonia and phosphoric acid" was used at proposal, this phrase now reads "phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line)" in the finalized rule. This phrasing was incorporated into final rule language at 40 CFR 63.620(b)(1), 63.622(a), 63.622(a)(1), 63.622(a)(2), 63.625(a), 63.626(f), in Table 1, and in Table 2.

ii. "Includes, but is Not Limited to" -- Comment. A commenter remarked that incorporating the language "includes, but is not limited to" in the definition of DAP and/or MAP process line is overly broad and creates ambiguity. They stated that industry should have certainty as to the applicability and scope of the rule, but the language "includes, but is not limited to" creates uncertainty as to where the affected equipment begins and ends for purposes of demonstrating compliance.

Response. We agree that this language creates overly broad process line definitions and can lead to regulatory uncertainty for affected sources. Therefore, we are not finalizing the language "includes, but is not limited to" in the definition of DAP and/or MAP process line.

b. Testing, Monitoring, Recordkeeping and Reporting --

i. Pressure Drop Across Absorber -- Comment. Several commenters requested the EPA delete the requirement that pressure drop across an absorber must be greater than 5 inches of water in order to use the option of measuring pressure drop as an operating parameter. These commenters contended that the EPA has not articulated any basis for the requirement. These commenters provided data demonstrating that units operate in compliance with the emission standards when the pressure drop across an absorber is less than 5 inches of water. One of these commenters expressed safety concerns associated with operating scrubbers at higher range pressure drop settings, citing that one of its facilities has experienced the entrainment of moisture within the absorbing tower when operating at pressure drops in excess of 8 inches of water, and another has experienced the buildup of excessive fumes on the digester floor when operating the digester scrubber as high as 6 inches of water.

Response. The Agency maintains its determination that pressure drop is not an appropriate monitoring parameter for

absorbers that do not use the energy from the inlet gas to increase contact between the gas and liquid in the absorber (see "Use of Pressure Drop as an Operating Parameter," which is available in Docket ID No. EPA-HQ-OAR-2012-0522). Therefore, we are not revising this proposed amendment. For further explanation please see our response to the identical comment that was made for NESHAP subpart AA in section V.F.3.b.i of this preamble.

ii. Absorber Monitoring Options -- Comment. Several commenters called attention to the options of either measuring: (1) The temperature at the wet scrubber gas stream outlet and pressure at the liquid inlet of the absorber, or (2) the temperature at the scrubber gas stream outlet and scrubber gas stream inlet. One of these commenters said that they do not believe monitoring gas temperature in locations of large ambient temperature ranges would provide accurate monitoring of the absorbers performance. The commenter argued that temperature and pressure probes would be very susceptible to scaling issues. In addition, this commenter contended that liquid inlet pressure does not provide any additional monitoring of the absorber performance, since the inlet liquid flow rate is already measured and monitored. Another commenter contended that the EPA has not provided any data or analysis to show that there is a correlation between temperature and emissions; the commenter stated that they were

not aware of any data suggesting a relationship between exit temperature and emissions, or that monitoring temperature difference across an absorber would be effective. One of these commenters argued that they were not in a position to evaluate the difficulties associated with performing the associated monitoring and establishing the requisite operating ranges.

Response. Absorber outlet gas temperature is often used to indicate a change in operation for absorbers used to control thermal processes. Because this source category does not use a thermal process to produce fertilizer, the Agency agrees with the commenters that temperature is not an appropriate monitoring parameter for absorbers used in this source category, and has removed these monitoring options from Table 3 of the final rule (NESHAP subpart BB). However, in light of this comment, the Agency has revised Table 3 of NESHAP subpart BB to require liquid-to-gas ratio monitoring for low-energy absorbers (i.e., absorbers that are designed to operate with pressure drops of 5 inches of water column or less) in lieu of monitoring influent liquid flow and pressure drop through the absorber. Furthermore, the Agency has revised Table 3 of NESHAP subpart BB to require influent liquid flow and pressure drop monitoring for high-energy (i.e., high pressure drop) absorbers, such as venturi scrubbers; and we are keeping liquid-to-gas ratio monitoring as an option for high-energy absorbers in the final rule. For

further explanation please see our response to the identical comment that was made for NESHAP subpart AA in section V.F.3.b.ii of this preamble.

iii. Acceptable Range From Baseline Average Value -- Comment. One commenter requested that the EPA revise 40 CFR 63.625(d)(1)(ii)(B) to have similar wording to 40 CFR 63.625(d)(1)(ii)(A), in which the allowable parametric limits may encompass up to +/- 20 percent of the of the baseline average values for the series of tests used under this option; that is, the parametric limit may extend -20 percent below the lowest baseline average and up to +20 percent above the highest baseline average from the series of performance tests used for this option.

Response. The Agency determined that it is not necessary to revise 40 CFR 63.625(d)(1)(ii)(B) to allow for a ±20 percent operating margin, as this commenter requests, because this provision already allows owners or operators to establish an operating limit range for a control device without having to apply an operating margin, such as ±20 percent. Owners or operators that use an absorber or a WESP to comply with the emission limits (and monitor pressure drop across each absorber or secondary voltage for a WESP) have two options to establish operating limits for demonstrating continuous compliance: (1) At 40 CFR 63.625(d)(1)(ii)(A), the operating limits may be

determined using the most recent performance test and applying an operating margin of ±20 percent (e.g., during the three test runs conducted for an owner's or operator's most recent performance test that demonstrated compliance with the emission limit, the arithmetic average of the absorber pressure drops recorded was 7 inches of water; therefore, under this option, the owner's or operator's operating limit range for this absorber would be 5.6 to 8.4 inches of water, or ±20 percent of 7); or (2) at 40 CFR 63.625(d)(1)(ii)(B), owners or operators may establish operating limit ranges based upon baseline values of operating parameters established in either historic performance tests or performance tests conducted specifically to establish such ranges (e.g., an owner or operator could choose to conduct two consecutive performance tests consisting of three test runs each and if the owner or operator demonstrates compliance with the emission limit while operating an absorber with a pressure drop of 6 inches of water during the first performance test, and then in the second performance test the owner or operator demonstrates compliance with the emission limit while operating an absorber with a pressure drop of 10 inches of water, the owner's or operator's operating limit range for this absorber would be 6 to 10 inches of water under this option). Additionally, the rule permits owners or operators to undertake additional performance testing (for either option) to

establish control device operating limits which reflect compliance with the emission limit for the full range of operating conditions of the control device. Therefore, the Agency has determined that no change to 40 CFR 63.625(d)(1)(ii)(B) is warranted.

iv. Operating Range Established From a Previous Test -- Comment. One commenter stated that 40 CFR 63.627(a) is somewhat ambiguous, tending to suggest that affected facilities would be immediately required to implement new equipment operating ranges following a source test, even if operating conditions from previous source tests demonstrated compliance with fluoride emission standards. The commenter argued that there is no reason that a new performance test at a new operating range should invalidate a previous performance test at a different operating range.

Response. The Agency has clarified in the final rule at 40 CFR 63.627(a) that during the most recent performance test, if owners or operators demonstrate compliance with the emission limit while operating their control device outside the previously established operating limit, then limits must be established. Owners or operators must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. For further

explanation please see our response to the identical comment that was made for NESHAP subpart AA in section V.F.3.b.iii of this preamble.

v. Approving Operating Ranges -- Comment. Several commenters support the EPA's proposal to eliminate the requirement that facilities may not implement new operating parameter ranges until the Administrator has approved them, or 30 days have passed since submission of the performance test results. However, two of these commenters pointed out that the EPA did not make the same allowance in 40 CFR 63.625(d)(1)(ii)(B), where a series of tests (potentially including historical tests) are used to establish an operating range. A commenter pointed out that 40 CFR 63.625(d)(1)(ii)(B), as proposed, does not provide the 30-day default period for the effectiveness of the new ranges if the EPA Administrator does not act; therefore, as currently set forth in the proposed rule, sources will be left in limbo waiting for the EPA Administrator to respond before they can implement new ranges. A commenter suggested that the EPA revise the proposed regulatory language to require submission of the new ranges to EPA, but delete the requirement to request and obtain EPA's approval of the new ranges. Similarly, another commenter requested the EPA clarify the process for establishing new equipment operating ranges following source performance testing. This commenter contended

that facilities should have the ability to update operating parameters if they desire based on source testing, and the facility should be required to submit the new ranges, but not be required to obtain EPA's approval of the new ranges.

In addition, a commenter requested that the EPA clarify how revising the proposed regulatory language to require submission of the new ranges to the EPA, but deleting the requirement to request and obtain EPA's approval of the new ranges, will affect possible obligations to undertake permit modifications of title V permits under 40 CFR Part 70. This commenter stated that such administrative processes are not fully anticipated in the proposed rule.

Response. In the proposed NESHAP subpart BB, the Agency intended that facilities not be required to obtain approval, and instead, immediately comply with a new operating limit when it is developed and submitted to the Administrator. Therefore, the requirements at 40 CFR 63.625(d)(1)(ii)(B) have been revised in the final rule, as the commenter requests, to remove the requirement that facilities must request and obtain approval of the Administrator for changing operating limits. Furthermore, the Agency suggests that the title V permit be modified as soon as the Administrator is notified of a change in an operating limit. The Agency acknowledges that corrections and modifications to permit applications could become a problem for

a facility, particularly if the Administrator determines the operating limit is not appropriate after a facility has already applied for the change to be made in their air permit; however, we expect this scenario to be rare.

c. Translation of Total Fluoride to HF Emission Limits --

Comment. Several commenters expressed concerns regarding the methodology for expressing the existing total fluoride limits in terms of HF (refer to section V.F.3.c of this preamble for a summary of comments received on this topic).

Response. In light of information provided by commenters, the Agency has re-evaluated the proposed revision to the standard and determined that EPA Method 320 is not an appropriate test method for accurately measuring HF emissions from process lines at this specific source category due to the complex and often incomplete chemical reactions with silicon compounds in these sources. Accordingly, we are not adopting the proposed HF standards, and instead we are retaining the existing total fluoride limits for all emission sources in subpart BB. For further explanation on this determination, refer to section V.F.3.c of this preamble. Although, at the present time, the Agency is not finalizing HF standards in NESHAP subpart BB, it may be possible to do so in a future rulemaking with additional data and specificity on monitoring requirements.

4. What is the rationale for our final decisions regarding these other changes to the Phosphate Fertilizer Production NESHAP and NSPS?

For the reasons provided above and in the preamble for the proposed rule, we are finalizing the proposed requirement in NESHAP subpart BB that pressure drop across an absorber must be greater than 5 inches of water in order to use the option of measuring pressure drop as an operating parameter; and other proposed clarifications and corrections.

Additionally, for the reasons provided above, we are making the revisions, clarifications and corrections noted in section VI.E.2 in the final rules for NESHAP subpart BB, NSPS subpart V, NSPS subpart W, and NSPS subpart X.

VII. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted

A. What are the affected facilities?

We anticipate that the 13 facilities currently operating in the U.S. will be affected by these amendments. We do not expect any new facilities to be constructed or expanded in the foreseeable future.

B. What are the air quality impacts?

We anticipate HF emissions reductions as a result of one facility installing controls on its oxidation reactor to comply with the SPA total fluoride limit. However, we do not

have emissions data for its oxidation reactor to calculate these reductions. In addition, the revised rule will mitigate future increases of Hg emissions from phosphate rock calciners by requiring compliance with numeric emission limits.

C. What are the cost impacts?

We have estimated compliance costs for all existing sources to add the necessary controls and monitoring devices, perform inspections, and implement recordkeeping and reporting requirements to comply with the final rules. Based on this analysis, we anticipate an overall total capital investment of $346,000, with an associated total annualized cost of approximately $294,000. We do not anticipate the construction of any new phosphoric acid manufacturing plants or phosphate fertilizer production facilities in the next 5 years. Therefore, there are no anticipated new source cost impacts. We estimated the cost to install a venturi scrubber to meet the SPA process line total fluoride standard, when oxidation reactor emissions are included, for one facility. For all emission sources, we calculated capital and annual costs for testing, monitoring, recordkeeping, and reporting. The memorandum, "Control Costs and Emissions Reductions for Phosphoric Acid and Phosphate Fertilizer Production Source Categories – Final Rule," which is available in the docket for this action, documents the control cost analyses.

D. What are the economic impacts?

Economic impact analyses focus on changes in market prices and output levels. If changes in market prices and output levels in the primary markets are significant, we also examine impacts on other markets. Both the magnitude of costs needed to comply with the rule and the distribution of these costs among affected facilities can have a role in determining how the market will change in response to the rule. We project that no facility will incur significant costs.

Because no small firms will incur control costs, there is no significant impact on small entities. Thus, we do not expect this regulation to have a significant impact on a substantial number of small entities.

E. What are the benefits?

The revised rule will mitigate future increases of Hg emissions from phosphate rock calciners by requiring compliance with numeric emission limits. These avoided emissions will result in improvements in air quality and reduced negative health effects associated with exposure to air pollution of these emissions. However, we have not quantified or monetized the benefits of reducing these emissions for this rulemaking because information is not available to monetize potential benefits and we are not aware of any new phosphate rock calciners that will be constructed in the next three years.

F. What analysis of environmental justice did we conduct?

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practical and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations in the U.S.

The EPA has determined that this rule will not have disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. To gain a better understanding of the source category and near source populations, the EPA conducted a proximity analysis on phosphate facilities to identify any overrepresentation of minority, low income, or indigenous populations. This analysis only gives some indication of the prevalence of sub-populations that may be exposed to air pollution from the sources; it does not identify the demographic characteristics of the most highly affected individuals or

communities, nor does it quantify the level of risk faced by those individuals or communities.

The proximity analysis reveals that most demographic categories are below or within 20 percent of their corresponding national averages. The two exceptions are the minority and African American populations. The ratio of African Americans living within 3 miles of any source affected by this rule is 131 percent higher than the national average (29 percent versus 13 percent). The percentage of minorities living within 3 miles of any source affected by this rule is 37 percent above the national average (35 percent versus 28 percent). The large minority population is a direct result of the higher percentage of African Americans living near these facilities (the other racial minorities are below or equal to the national average). However, as noted previously, we found the risks from these source categories to be acceptable for all populations.
The changes to the standard increase the level of environmental protection for all affected populations by ensuring no future emission increases from the source categories. The proximity analysis results and the details concerning their development are presented in the October 2012 memorandum, "Environmental Justice Review: Phosphate Fertilizer Production and Phosphoric Acid," a copy of which is available in Docket ID No. EPA-HQ-OAR-2012-0522.

G. What analysis of children's environmental health did we conduct?

While this action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), we note that the current standards provide an ample margin of safety to protect public health. Consideration of children's health is accounted for in our risk analyses, which compare projected exposures to various health benchmarks that are based on the most sensitive populations.

VIII. Statutory and Executive Order Reviews

A. Executive Orders 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review. The EPA analyzed the potential costs and benefits associated with this action. The results are presented in sections VII.C and E of this preamble.

B. Paperwork Reduction Act (PRA)

The information collection activities in these rules have been submitted for approval to OMB under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 1790.06. You can find a copy of the ICR in the docket for this rule, and it is briefly

summarized here. The information collection requirements are not enforceable until OMB approves them.

We are finalizing new paperwork requirements to the Phosphoric Acid Manufacturing and Phosphate Fertilizer Production source categories in the form of additional requirements for stack testing, performance evaluations, and work practices for fugitive sources.

We estimate 12 regulated entities are currently subject to 40 CFR part 63, subpart AA and 11 regulated entities are currently subject to 40 CFR part 63, subpart BB and each will be subject to all applicable standards. The annual monitoring, reporting, and recordkeeping burden for these amendments to subpart AA and BB is estimated to be $224,000 per year (averaged over the first 3 years after the effective date of the standards). This includes 670 labor hours per year at a total labor cost of $55,000 per year, and total non-labor capital and operating and maintenance costs of $169,000 per year. This estimate includes performance tests, notifications, reporting and recordkeeping associated with the new requirements for emission points and associated control devices. The total burden to the federal government is estimated to be 330 hours per year at a total labor cost of $17,000 per year (averaged over the first 3 years after the effective date of the standard). Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the Federal Register and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. This rule will not impose any requirements on small entities because we do not project that any small entities will incur costs due to these rule amendments. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will 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.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action has tribal implications. However, it will neither impose substantial direct compliance costs on federally recognized tribal governments, nor preempt tribal law. The tribal implications are primarily due to the close proximity of one facility to a tribe (the Shoshone-Bannock).

The EPA consulted with tribal officials under the EPA Policy on Consultation and Coordination with Indian Tribes early in the process of developing this regulation to permit them to have meaningful and timely input into its development. The Agency provided an overview of the source categories and rulemaking process during a monthly teleconference with the

National Tribal Air Association. Additionally, we provided targeted outreach, including a visit to the Shoshone-Bannock tribe and meeting with environmental leaders for the tribe.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments are contained in sections V.A. and VI.A.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR part 51

This action involves technical standards. The EPA has decided to use analytical methods of the Association of Official Analytical Chemists (AOAC) and of the Association of Fertilizer and Phosphate Chemists (AFPC). The AOAC methods include: AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, AOAC Official Method 929.01

Sampling of Solid Fertilizers, AOAC Official Method 929.02 Preparation of Fertilizer Sample, AOAC Official Method 978.01 Phosphorous (Total) in Fertilizers, Automated Method, AOAC Official Method 969.02 Phosphorous (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, AOAC Official Method 962.02 Phosphorous (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method and Quinolinium Molybdophosphate Method 958.01 Phosphorous (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method. The AFPC methods for analysis of phosphate rock include: No. 1 Preparation of Sample, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method A-Volumetric Method, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method B-Gravimetric Quimociac Method, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method C-Spectrophotometric Method. The AFPC methods for analysis of phosphoric acid, superphosphate, triple superphosphate and ammonium phosphates include: No. 3 Total Phosphorus-P2O5, Method A-Volumetric Method, No. 3 Total Phosphorus-P2O5, Method B-Gravimetric Quimociac Method and No. 3 Total Phosphorus-P2O5, Method C-Spectrophotometric Method.

As discussed in the preamble of the proposal, under NESHAP subpart AA and NESHAP subpart BB, we conducted searches for EPA Methods 5, 13A, 13B, and 30B. The EPA conducted searches through the Enhanced National Standards Systems Network (NSSN) Database managed by the American National Standards Institute (ANSI). We

contacted voluntary consensus standards (VCS) organizations, and accessed and searched their databases. We did not identify any applicable VCS for EPA Methods 5, 13A, 13B, or 30B. Additional information for the VCS search and determinations can be found in the memorandum, "Voluntary Consensus Standard Results for Phosphoric Acid Manufacturing and Phosphate Fertilizer Production RTR and Standards of Performance for Phosphate Processing," which is available in the docket for this action. The EPA solicited comments on VCS and invited the public to identify potentially applicable VCS; however, we did not receive comments regarding this aspect of NESHAP subpart AA and NESHAP subpart BB.

The EPA is incorporating, into NESHAP subpart AA and NESHAP subpart BB, the following guidance document: EPA-454/R-98-015, Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997. This guidance document provides procedures for selecting, installing, setting up, adjusting, and operating a bag leak detection system; and also includes quality assurance procedures. This guidance document is readily accessible at http://www.epa.gov/ttn/emc/cem.html.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will **not** have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations because it increases the level of protection provided to human health or the environment. The results of this evaluation are contained in the memorandum titled "Environmental Justice Review: Phosphate Fertilizer Production and Phosphoric Acid," which is available in Docket ID No. EPA-HQ-OAR-2012-0522, and are discussed in section VII.F of this preamble.

K. Congressional Review Act

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the U.S. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects

40 CFR Part 60

Environmental protection, Air pollution control, Fertilizers, Fluoride, Particulate matter, Phosphate, Reporting and recordkeeping requirements.

40 CFR Part 63

Environmental protection, Administrative practice and procedures, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

July 21, 2015

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Dated:

_____

Gina McCarthy,
Administrator.

For the reasons stated in the preamble, parts 60 and 63 of title 40, chapter I, of the Code of Federal Regulations are amended as follows:

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

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

Subpart T—Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants

2. Section 60.200 is amended by revising paragraph (a) to read as follows:

§ 60.200 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each wet-process phosphoric acid plant having a design capacity of more than 15 tons of equivalent P_2O_5 feed per calendar day.

* * * * *

3. Section 60.201 is amended by revising paragraph (a) to read as follows:

§ 60.201 Definitions.

* * * * *

(a) Wet-process phosphoric acid plant means any facility manufacturing phosphoric acid by reacting phosphate rock and

acid. A wet-process phosphoric acid plant includes: reactors, filters, evaporators, and hot wells.

* * * * *

4. Section 60.203 is amended by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 60.203 Monitoring of operations.

* * * * *

(c) The owner or operator of any wet-process phosphoric acid plant subject to the provisions of this part shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the absorber. The monitoring device shall have an accuracy of ±5 percent over its operating range.

(d) Any facility under § 60.200(a) that commences construction, modification or reconstruction after November 7, 2014 is subject to the requirements of this paragraph instead of the requirements in paragraph (c) of this section. If an absorber is used to comply with § 60.202, then the owner or operator shall continuously monitor pressure drop through the absorber and meet the requirements specified in paragraphs (d)(1) through (4) of this section.

(1) The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CMS) that continuously measures and permanently records the pressure at

the gas stream inlet and outlet of the absorber. The pressure at the gas stream inlet of the absorber may be measured using amperage on the blower if a correlation between pressure and amperage is established.

(2) The CMS must have an accuracy of ± 5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.

(3) The owner or operator shall establish an allowable range for the pressure drop through the absorber. The allowable range is ±20 percent of the arithmetic average of the three test runs conducted during the performance test required in § 60.8. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(4) The owner or operator shall demonstrate continuous compliance by maintaining the daily average pressure drop through the absorber to within the allowable range established in paragraph (d)(3) of this section. The daily average pressure drop through the absorber for each operating day shall be calculated using the data recorded by the monitoring system. If the emissions unit operation is continuous, the operating day is

a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

5. Subpart T is amended by adding § 60.205 to read as follows:

§ 60.205 Recordkeeping.

Any facility under § 60.200(a) that commences construction, modification or reconstruction after November 7, 2014 is subject to the requirements of this section. You must maintain the records identified as specified in § 60.7(f) and in paragraphs (a) and (b) of this section. All records required by this subpart must be maintained on site for at least 5 years.

(a) Records of the daily average pressure. Records of the daily average pressure drop through the absorber.

(b) Records of deviations. A deviation is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (b)(1) and (2) of this section being met.

(1) A deviation occurs when the daily average value of a monitored operating parameter is less than the minimum pressure drop, or greater than the maximum pressure drop established in § 60.203(d)(3).

(2) A deviation occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

Subpart U—Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants

6. Section 60.210 is amended by revising paragraph (a) to read as follows:

§ 60.210 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each superphosphoric acid plant having a design capacity of more than 15 tons of equivalent P_2O_5 feed per calendar day.

* * * * *

7. Section 60.211 is amended by revising paragraph (a) to read as follows:

§ 60.211 Definitions.

* * * * *

(a) Superphosphoric acid plant means any facility that concentrates wet-process phosphoric acid to 66 percent or greater P_2O_5 content by weight for eventual consumption as a fertilizer. A superphosphoric acid plant includes: evaporators, hot wells, acid sumps, oxidation reactors, and cooling tanks. An oxidation reactor includes any equipment or step that uses an

oxidizing agent (e.g., nitric acid, ammonium nitrate, or potassium permanganate) to treat superphosphoric acid.

* * * * *

8. Section 60.213 is amended by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 60.213 Monitoring of operations.

* * * * *

(c) Except as specified in paragraph (d) of this section, the owner or operator of any superphosphoric acid plant subject to the provisions of this part shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the absorber. The monitoring device shall have an accuracy of ±5 percent over its operating range.

(d) Any affected facility as defined in § 60.210(a) that commences construction, modification or reconstruction after November 7, 2014 is subject to the requirements of this paragraph instead of the requirements in paragraph (c) of this section. If an absorber is used to comply with § 60.212, then the owner or operator shall continuously monitor pressure drop through the absorber and meet the requirements specified in paragraphs (d)(1) through (4) of this section.

(1) The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CMS) that

continuously measures and permanently records the pressure at the gas stream inlet and outlet of the absorber. The pressure at the gas stream inlet of the absorber may be measured using amperage on the blower if a correlation between pressure and amperage is established.

(2) The CMS must have an accuracy of ± 5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.

(3) The owner or operator shall establish an allowable range for the pressure drop through the absorber. The allowable range is ±20 percent of the arithmetic average of the three test runs conducted during the performance test required in § 60.8. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(4) The owner or operator shall demonstrate continuous compliance by maintaining the daily average pressure drop through the absorber to within the allowable range established in paragraph (d)(3) of this section. The daily average pressure drop through the absorber for each operating day shall be calculated using the data recorded by the monitoring system. If

the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

9. Subpart U is amended by adding §60.215 to read as follows:

§ 60.215 Recordkeeping.

An affected facility as defined in § 60.210(a) that commences construction, modification, or reconstruction after November 7, 2014 is subject to the requirements of this section. You must maintain the records identified as specified in § 60.7(f) and in paragraphs (a) and (b) of this section. All records required by this subpart must be maintained on site for at least 5 years.

(a) Records of the daily average pressure. Records of the daily average pressure drop through the absorber.

(b) Records of deviations. A deviation is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (b)(1) and (2) of this section being met.

(1) A deviation occurs when the daily average value of a monitored operating parameter is less than the minimum pressure

drop, or greater than the maximum pressure drop established in § 60.213(d)(3).

(2) A deviation occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

Subpart V—Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants

10. Section 60.223 is amended by revising paragraph (c) and adding paragraph (d) to read as follows:

§ 60.223 Monitoring of operations.

* * * * *

(c) Except as specified in paragraph (d) of this section, the owner or operator of any granular diammonium phosphate plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across the scrubbing system. The monitoring device shall have an accuracy of ±5 percent over its operating range.

(d) Any affected facility as defined in § 60.220(a) that commences construction, modification, or reconstruction after November 7, 2014 is subject to the requirements of this paragraph instead of the requirements in paragraph (c) of this section. If an absorber is used to comply with § 60.222, then the owner or operator shall continuously monitor pressure drop

through the absorber and meet the requirements specified in paragraphs (d)(1) through (4) of this section.

(1) The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CMS) that continuously measures and permanently records the pressure at the gas stream inlet and outlet of the absorber. The pressure at the gas stream inlet of the absorber may be measured using amperage on the blower if a correlation between pressure and amperage is established.

(2) The CMS must have an accuracy of ± 5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.

(3) The owner or operator shall establish an allowable range for the pressure drop through the absorber. The allowable range is ±20 percent of the arithmetic average of the three test runs conducted during the performance test required in § 60.8. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(4) The owner or operator shall demonstrate continuous compliance by maintaining the daily average pressure drop

through the absorber to within the allowable range established in paragraph (d)(3) of this section. The daily average pressure drop through the absorber for each operating day shall be calculated using the data recorded by the monitoring system. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

11. Section 60.224 is amended by revising paragraph (b)(3)(ii) to read as follows:

§ 60.224 Test methods and procedures.

* * * * *

(b) * * *

(3) * * *

(ii) The Association of Official Analytical Chemists (AOAC) Method 9 (incorporated by reference—see § 60.17) shall be used to determine the P_2O_5 content (R_p) of the feed.

12. Subpart V is amended by adding § 60.225 to read as follows:

§ 60.225 Recordkeeping.

An affected facility as defined in § 60.220(a) that commences construction, modification, or reconstruction after

November 7, 2014 is subject to the requirements of this section. You must maintain the records identified as specified in § 60.7(f) and in paragraphs (a) and (b) of this section. All records required by this subpart must be maintained on site for at least 5 years.

(a) Records of the daily average pressure drop through the absorber.

(b) Records of deviations. A deviation is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (b)(1) and (2) of this section being met.

(1) A deviation occurs when the daily average value of a monitored operating parameter is less than the minimum pressure drop, or greater than the maximum pressure drop established in § 60.223(d)(3).

(2) A deviation occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

Subpart W—Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants

13. Section 60.230 is amended by revising paragraph (a) to read as follows:

§ 60.230 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each triple superphosphate plant having a design capacity of more than 15 tons of equivalent P_2O_5 feed per calendar day. For the purpose of this subpart, the affected facility includes any combination of: mixers, curing belts (dens), reactors, granulators, dryers, coolers, screens, mills, and facilities that store run-of-pile triple superphosphate.

* * * * *

14. Section 60.233 is revised to read as follows:

§ 60.233 Monitoring of operations.

(a) The owner or operator of any triple superphosphate plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a flow monitoring device that can be used to determine the mass flow of phosphorus-bearing feed material to the process. The flow monitoring device shall have an accuracy of ±5 percent over its operating range.

(b) The owner or operator of any triple superphosphate plant shall maintain a daily record of equivalent P_2O_5 feed by first determining the total mass rate in Mg/hr of phosphorus-bearing feed using a flow monitoring device meeting the requirements of paragraph (a) of this section and then by proceeding according to § 60.234(b)(3).

(c) Except as specified in paragraph (d) of this section, the owner or operator of any triple superphosphate plant subject

to the provisions of this part shall install, calibrate, maintain, and operate a monitoring device that continuously measures and permanently records the total pressure drop across the absorber. The monitoring device shall have an accuracy of ±5 percent over its operating range.

(d) Any facility under § 60.230(a) that commences construction, modification, or reconstruction after November 7, 2014 is subject to the requirements of this paragraph instead of the requirements in paragraph (c) of this section. If an absorber is used to comply with § 60.232, then the owner or operator shall continuously monitor pressure drop through the absorber and meet the requirements specified in paragraphs (d)(1) through (4) of this section.

(1) The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CMS) that continuously measures and permanently records the pressure at the gas stream inlet and outlet of the absorber. The pressure at the gas stream inlet of the absorber may be measured using amperage on the blower if a correlation between pressure and amperage is established.

(2) The CMS must have an accuracy of ± 5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.

(3) The owner or operator shall establish an allowable range for the pressure drop through the absorber. The allowable range is ±20 percent of the arithmetic average of the three test runs conducted during the performance test required in § 60.8. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(4) The owner or operator shall demonstrate continuous compliance by maintaining the daily average pressure drop through the absorber to within the allowable range established in paragraph (d)(3) of this section. The daily average pressure drop through the absorber for each operating day shall be calculated using the data recorded by the monitoring system. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

15. Subpart W is amended by adding § 60.235 to read as follows:

§ 60.235 Recordkeeping.

Any facility under § 60.230(a) that commences construction, modification, or reconstruction after November 7, 2014 is subject to the requirements of this section. You must maintain the records identified as specified in § 60.7(f) and in paragraphs (a) and (b) of this section. All records required by this subpart must be maintained onsite for at least 5 years.

(a) Records of the daily average pressure drop through the absorber.

(b) Records of deviations. A deviation is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (b)(1) and (2) of this section being met.

(1) A deviation occurs when the daily average value of a monitored operating parameter is less than the minimum pressure drop, or greater than the maximum pressure drop established in § 60.233(d)(3).

(2) A deviation occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

Subpart X—Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities

16. Section 60.243 is amended by revising paragraph (c) and adding (e) to read as follows:

§ 60.243 Monitoring of operations.

* * * * *

(c) Except as specified in paragraph (e) of this section, the owner or operator of any granular triple superphosphate storage facility subject to the provisions of this subpart shall install, calibrate, maintain, and operate a monitoring device that continuously measures and permanently records the total pressure drop across any absorber. The monitoring device shall have an accuracy of ±5 percent over its operating range.

* * * * *

(e) Any facility under § 60.240(a) that commences construction, modification, or reconstruction after November 7, 2014 is subject to the requirements of this paragraph instead of the requirements in paragraph (c) of this section. If an absorber is used to comply with § 60.232, then the owner or operator shall continuously monitor pressure drop through the absorber and meet the requirements specified in paragraphs (e)(1) through (4) of this section.

(1) The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CMS) that continuously measures and permanently records the pressure at the gas stream inlet and outlet of the absorber. The pressure at the gas stream inlet of the absorber may be measured using

amperage on the blower if a correlation between pressure and amperage is established.

(2) The CMS must have an accuracy of ± 5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.

(3) The owner or operator shall establish an allowable range for the pressure drop through the absorber. The allowable range is ±20 percent of the arithmetic average of the three test runs conducted during the performance test required in § 60.8. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(4) The owner or operator shall demonstrate continuous compliance by maintaining the daily average pressure drop through the absorber to within the allowable range established in paragraph (e)(3) of this section. The daily average pressure drop through the absorber for each operating day shall be calculated using the data recorded by the monitoring system. If the emissions unit operation is continuous, the operating day is a 24-hour period. If the emissions unit operation is not continuous, the operating day is the total number of hours of

control device operation per 24-hour period. Valid data points must be available for 75 percent of the operating hours in an operating day to compute the daily average.

17. Subpart X is amended by adding § 60.245 to read as follows:

§ 60.245 Recordkeeping.

Any facility under § 60.240(a) that commences construction, modification, or reconstruction after November 7, 2014 is subject to the requirements of this section. You must maintain the records identified as specified in § 60.7(f) and in paragraphs (a) and (b) of this section. All records required by this subpart must be maintained onsite for at least 5 years.

(a) Records of the daily average pressure drop through the absorber.

(b) Records of deviations. A deviation is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (b)(1) and (2) of this section being met.

(1) A deviation occurs when the daily average value of a monitored operating parameter is less than the minimum pressure drop, or greater than the maximum pressure drop established in § 60.243(e)(3).

(2) A deviation occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day.

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

18. The authority citation for part 63 continues to read as follows:

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

Subpart A—General Provisions

19. Section 63.14 is amended by revising paragraphs (b), (c)(1) through (7), and (l)(2) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida 33830.

(1) Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991:

(i) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for §63.606(f), §63.626(f).

(ii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus—P2O5 or Ca3(PO4)2, Method A-Volumetric Method, IBR approved for §63.606(f), §63.626(f).

(iii) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method B—Gravimetric Quimociac Method, IBR approved for §63.606(f), §63.626(f).

(iv) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method C—Spectrophotometric Method, IBR approved for §63.606(f), §63.626(f).

(v) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method A—Volumetric Method, IBR approved for §63.606(f), §63.626(f), and (g).

(vi) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method B—Gravimetric Quimociac Method, IBR approved for §63.606(f), §63.626(f), and (g).

(vii) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method C—Spectrophotometric Method, IBR approved for §63.606(f), §63.626(f), and (g).

(2) [Reserved]

(c) * * *

(1) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for §63.626(g).

(2) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for §63.626(g).

(3) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for §63.626(g).

(4) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(5) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(6) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

(7) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for §63.626(g).

* * * * *

(l) * * *

(2) EPA-454/R-98-015, Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance, September 1997, IBR approved for §§63.548(e), 63.606(m), 63.607(b), 63.626(h), 63.627(b), 63.7525(j), and 63.11224(f).

* * * * *

20. Part 63 is amended by revising subpart AA to read as follows:

Subpart AA—National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants

Sec.

63.600 Applicability.
63.601 Definitions.
63.602 Standards and compliance dates.
63.603 [Reserved]
63.604 [Reserved]
63.605 Operating and monitoring requirements.
63.606 Performance tests and compliance provisions.
63.607 Notification, recordkeeping, and reporting requirements.
63.608 General requirements and applicability of general provisions of this part.
63.609 [Reserved]
63.610 Exemption from new source performance standards.
63.611 Implementation and enforcement.
Table 1 to Subpart AA of Part 63—Existing Source Emission Limits
Table 2 to Subpart AA of Part 63—New Source Emission Limits
Table 3 to Subpart AA of Part 63—Monitoring Equipment Operating Parameters
Table 4 to Subpart AA of Part 63—Operating Parameters, Operating Limits and Data Monitoring, Recordkeeping and Compliance Frequencies
Table 5 to Subpart AA of Part 63—Calibration and Quality Control Requirements for Continuous Parameter Monitoring System (CPMS)
Appendix A to Subpart AA of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart AA

§ 63.600 Applicability.

(a) Except as provided in paragraphs (c) and (d) of this section, you are subject to the requirements of this subpart if you own or operate a phosphoric acid manufacturing plant that is a major source as defined in § 63.2. You must comply with the

emission limitations, work practice standards, and operating parameter requirements specified in this subpart at all times.

(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from the following affected sources at a phosphoric acid manufacturing plant:

(1) Each wet-process phosphoric acid process line.

(2) Each evaporative cooling tower.

(3) Each phosphate rock dryer.

(4) Each phosphate rock calciner.

(5) Each superphosphoric acid process line.

(6) Each purified phosphoric acid process line.

(7) Each gypsum dewatering stack.

(8) Each cooling pond.

(c) The requirements of this subpart do not apply to a phosphoric acid manufacturing plant that is an area source as defined in § 63.2.

(d) The provisions of this subpart do not apply to research and development facilities as defined in § 63.601.

§ 63.601 Definitions.

Terms used in this subpart are defined in § 63.2 of the Clean Air Act and in this section as follows:

Active gypsum dewatering stack means a gypsum dewatering stack that is currently receiving gypsum, received gypsum within the last year, or is part of the facility's water management

system. A gypsum dewatering stack that is considered closed by a state authority is not considered an active gypsum dewatering stack.

Breakthrough means the point in time when the level of mercury detected at the outlet of an adsorber system is 90 percent of the highest concentration allowed to be discharged consistent with the applicable emission limit.

Cooling pond means a natural or artificial open reservoir that is primarily used to collect and cool water that comes into direct contact with raw materials, intermediate products, by-products, waste products, or finished products from a phosphoric acid manufacturing plant. The water in the cooling pond is often used at phosphoric acid manufacturing plants as filter wash water, absorber water for air pollution control absorbers, and/or to transport phosphogypsum as slurry to a gypsum dewatering stack(s).

Equivalent P_2O_5 feed means the quantity of phosphorus, expressed as phosphorus pentoxide (P_2O_5), fed to the process.

Evaporative cooling tower means an open-water, re-circulating device that uses fans or natural draft to draw or force ambient air through the device to remove heat from process water by direct contact.

Exceedance means a departure from an indicator range established for monitoring under this subpart, consistent with

any averaging period specified for averaging the results of the monitoring.

Existing source depends on the date that construction or reconstruction of an affected source commenced. A wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, phosphate rock calciner, evaporative cooling tower, or purified acid process line is an existing source if construction or reconstruction of the affected source commenced on or before December 27, 1996. A gypsum dewatering stack or cooling pond is an existing source if it meets one of two criteria:

(1) It was constructed or reconstructed on or before [**insert date of publication in the Federal Register**]; or

(2) It was constructed or reconstructed after [**insert date of publication in the Federal Register**] and it was not required to obtain a permit by a state authority for the construction or reconstruction.

Gypsum dewatering stack means any defined geographic area associated with a phosphoric acid manufacturing plant in which gypsum is disposed of or stored, other than within a fully enclosed building, container, or tank.

Gypsum dewatering stack system means the gypsum dewatering stack, together with all pumps, piping, ditches, drainage conveyances, water control structures, collection pools, cooling

ponds, surge ponds, auxiliary holding ponds, regional holding ponds and any other collection or conveyance system associated with the transport of gypsum from the plant to the gypsum dewatering stack, its management at the gypsum dewatering stack, and the process wastewater return to the phosphoric acid production or other process.

HAP metals mean those metals and their compounds (in particulate or volatile form) that are included on the list of hazardous air pollutants in section 112 of the Clean Air Act. HAP metals include, but are not limited to: antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium expressed as particulate matter as measured by the methods and procedures in this subpart or an approved alternative method. For the purposes of this subpart, HAP metals (except mercury) are expressed as particulate matter as measured by Method 5 at 40 CFR part 60, appendix A-3.

New source depends on the date that construction or reconstruction of an affected source commences. A wet-process phosphoric acid process line, superphosphoric acid process line, phosphate rock dryer, phosphate rock calciner, evaporative cooling tower, or purified acid process line is a new source if construction or reconstruction of the affected source commenced after December 27, 1996. A gypsum dewatering stack or cooling pond is a new source if it meets two criteria:

(1) It was constructed or reconstructed after [**insert date of publication in the Federal Register**]; and

(2) It was required to obtain a permit by a state authority for the construction or reconstruction.

Oxidation reactor means any equipment or step that uses an oxidizing agent (e.g., nitric acid, ammonium nitrate, or potassium permanganate) to treat superphosphoric acid.

Phosphate rock calciner means the equipment used to remove moisture and organic matter from phosphate rock through direct or indirect heating.

Phosphate rock dryer means the equipment used to reduce the moisture content of phosphate rock through direct or indirect heating.

Phosphate rock feed means all material entering any phosphate rock dryer or phosphate rock calciner including moisture and extraneous material as well as the following ore materials: fluorapatite, hydroxylapatite, chlorapatite, and carbonateapatite.

Purified phosphoric acid process line means any process line that uses a HAP as a solvent in the separation of impurities from the product acid for the purposes of rendering that product suitable for industrial, manufacturing, or food grade uses. A purified phosphoric acid process line includes: solvent extraction process equipment, solvent stripping and

recovery equipment, seal tanks, carbon treatment equipment, cooling towers, storage tanks, pumps, and process piping.

Raffinate stream means the aqueous stream containing the impurities that are removed during the purification of wet-process phosphoric acid using solvent extraction.

Research and development facility means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other off-site distribution, except in a de minimis manner.

Rim ditch (cell) building technique means a gypsum dewatering stack construction technique that utilizes inner and outer dikes to direct gypsum slurry flow around the perimeter of the stack before directing the flow and allowing settling of finer materials into the settling compartment. For the purpose of this definition, the rim ditch (cell) building technique includes the compartment startup phase when gypsum is deposited directly into the settling compartment in preparation for ditch construction as well as the step-in or terminal phases when most solids must be directed to the settling compartment prior to stack closure. Decant return ditches are not rim ditches.

Shutdown commences when feed materials cease to be added to an affected source and ends when the affected source is deactivated, regardless of whether feed material is present in the affected source.

Startup commences when any feed material is first introduced into an affected source and ends when feed material is fully loaded into the affected source.

Superphosphoric acid process line means any process line that concentrates wet-process phosphoric acid to 66 percent or greater P_2O_5 content by weight. A superphosphoric acid process line includes: evaporators, hot wells, acid sumps, oxidation reactors, and cooling tanks.

Total fluorides means elemental fluorine and all fluoride compounds, including the HAP HF, as measured by reference methods specified in 40 CFR part 60, appendix A , Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to §63.7(f).

Wet-process phosphoric acid process line means any process line manufacturing phosphoric acid by reacting phosphate rock and acid. A wet-process phosphoric acid process line includes: reactors, filters, evaporators, and hot wells.

§ 63.602 Standards and compliance dates.

(a) On and after the dates specified in paragraphs (a)(1) through (6) of this section, for each wet-process phosphoric

acid process line, superphosphoric acid process line, phosphate rock dryer, and phosphate rock calciner, you must comply with the emission limits as specified in paragraphs (a)(1) through (6) of this section. If a process line contains more than one emission point, you must sum the emissions from all emission points in a process line to determine compliance with the specified emission limits.

(1) For each existing wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commenced construction or reconstruction on or before December 27, 1996, you must comply with the emission limits specified in Table 1 to this subpart beginning on June 10, 2002.

(2) For each existing phosphate rock calciner that commenced construction or reconstruction on or before December 27, 1996, you must comply with the emission limits as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) You must comply with the total particulate emission limit specified in Table 1 to this subpart beginning on June 10, 2002.

(ii) You must comply with the mercury emission limit specified in Table 1 to this subpart beginning on [**insert date of publication in the Federal Register**].

(iii) You must comply with the total fluorides emission limit specified in Table 1 to this subpart beginning on [**insert date of publication in the Federal Register**].

(3) For each new wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commences construction or reconstruction after December 27, 1996 and on or before [**insert date of publication in the Federal Register**], you must comply with the emission limits specified in Table 2 to this subpart beginning on June 10, 1999 or at startup, whichever is later.

(4) For each new wet-process phosphoric acid process line, superphosphoric acid process line, and phosphate rock dryer that commences construction or reconstruction after [**insert date of publication in the Federal Register**], you must comply with the emission limits specified in Table 2 to this subpart immediately upon startup.

(5) For each new phosphate rock calciner that commences construction or reconstruction after December 27, 1996 and on or before [**insert date of publication in the Federal Register**], you must comply with the emission limits as specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must comply with the total particulate emission limit specified in Table 2 to this subpart beginning on June 10, 1999 or at startup, whichever is later.

(ii) You must comply with the mercury emission limit specified in Table 2 to this subpart beginning on [**insert date of publication in the Federal Register**], or upon startup, whichever is later.

(iii) You must comply with the total fluorides emission limit specified in Table 2 to this subpart beginning on [**insert date of publication in the Federal Register**], or upon startup, whichever is later.

(6) For each new phosphate rock calciner that commences construction or reconstruction after [**insert date of publication in the Federal Register**], you must comply with the emission limits specified in Table 2 to this subpart immediately upon startup.

(b) For each existing purified phosphoric acid process line that commenced construction or reconstruction on or before December 27, 1996, you must comply with the provisions of subpart H of this part and paragraphs (b)(1) through (3) of this section beginning on June 10, 2002. For each new purified phosphoric acid process line that commences construction or reconstruction after December 27, 1996, you must comply with the provisions of subpart H of this part and paragraphs (b)(1) through (3) of this section beginning on June 10, 1999 or at startup, whichever is later.

(1) Maintain a 30-day rolling average of daily concentration measurements of methyl isobutyl ketone equal to or below 20 parts per million by weight (ppmw) for each product acid stream.

(2) Maintain a 30-day rolling average of daily concentration measurements of methyl isobutyl ketone equal to or below 30 ppmw for each raffinate stream.

(3) Maintain the daily average temperature of the exit gas stream from the chiller stack below 50 degrees Fahrenheit.

(c) Beginning on June 10, 2002, you must not introduce into an existing evaporative cooling tower that commenced construction or reconstruction on or before December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment. Beginning on June 10, 1999 or at startup, whichever is later, you must not introduce into a new evaporative cooling tower that commences construction or reconstruction after December 27, 1996, any liquid effluent from any absorber installed to control emissions from process equipment.

(d) For each gypsum dewatering stack system, you must prepare, and operate in accordance with, a gypsum dewatering stack and cooling pond management plan that contains the information specified in paragraph (e) of this section beginning

on **[insert date 1 year after date of publication in the Federal Register]**.

(e) The gypsum dewatering stack and cooling pond management plan must include the information specified in paragraphs (e)(1) through (3) of this section. You must submit the gypsum dewatering stack and cooling pond management plan for approval to the Administrator as specified in paragraph (e)(4) of this section.

(1) Location (including latitude and longitude of centroid in decimal degrees to four decimal places) of each gypsum dewatering stack and each cooling pond in the gypsum dewatering stack system.

(2) Permitted maximum footprint acreage of each gypsum dewatering stack and each cooling pond in the gypsum dewatering stack system.

(3) Control measures that you use to minimize fugitive hydrogen fluoride emissions from the gypsum dewatering stack system. If you operate one or more active gypsum dewatering stacks or cooling ponds that are considered new sources as defined in § 63.601, then you must use, and include in the management plan, at least two of the control measures listed in paragraphs (e)(3)(i) through (vii) of this section for your gypsum dewatering stack system. If you only operate active gypsum dewatering stacks and cooling ponds that are considered

existing sources as defined in § 63.601, then you must use, and include in the management plan, at least one of the control measures listed in paragraphs (e)(3)(i) through (vii) of this section for your gypsum dewatering stack system.

(i) For at least one cooling pond that is considered part of your gypsum dewatering stack system, you may choose to submerge the discharge pipe to a level below the surface of the cooling pond.

(ii) For at least one cooling pond that is considered part of your gypsum dewatering stack system, you may choose to use lime (or any other caustic substance) to raise the pH of the liquid (e.g., the condensed vapors from the flash cooler and evaporators, and scrubbing liquid) discharged into the cooling pond. If you choose this control measure, then you must include in the plan the method used to raise the pH of the liquid discharged into the cooling pond, the target pH value (of the liquid discharged into the cooling pond) expected to be achieved by using the method, and the analyses used to determine and support the raise in pH.

(iii) For all cooling ponds that are considered part of your gypsum dewatering stack system, you may choose to reduce the total cooling pond surface area based on a facility specific evaluation plan. If you choose this control measure, then you must include in the facility specific evaluation plan certified

by an independent licensed professional engineer or similarly qualified individual. You must also include in the plan the method used to reduce total cooling pond footprint, the analyses used to determine and support the reduction in the total cooling pond surface area, and the amount of total cooling pond surface area that was reduced due to the facility specific evaluation plan.

(iv) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to minimize the surface area of the gypsum pond associated with the active gypsum dewatering stack by using a rim ditch (cell) building technique or other building technique.

(v) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may choose to apply slaked lime to the active gypsum dewatering stack surfaces. If you choose this control measure, then you must include in the plan the method used to determine the specific locations slaked lime is applied. The plan must also include the methods used to determine the quantity of, and when to apply, slaked lime (e.g., slaked lime may be applied to achieve a state ambient air standard for fluorides, measured as hydrogen fluoride).

(vi) For at least one gypsum dewatering stack that is considered part of your gypsum dewatering stack system, you may

choose to apply soil caps and vegetation, or a synthetic cover, to a portion of side slopes of the active gypsum dewatering stack. If you choose this control measure, then you must include in the plan the method used to determine the specific locations of soil caps and vegetation, or synthetic cover; and specify the acreage and locations where soil caps and vegetation, or synthetic cover, is applied. The plan must also include a schedule describing when soil caps and vegetation, or synthetic cover, is to be applied.

(vii) For all gypsum dewatering stacks that are considered part of your gypsum dewatering stack system, you may choose to establish closure requirements that at a minimum, contain requirements for the specified items in paragraphs (e)(3)(vii)(A) and (B) of this section.

(A) A specific trigger mechanism for when you must begin the closure process on the gypsum dewatering stack; and

(B) A requirement to install a final cover. For purposes of this paragraph, final cover means the materials used to cover the top and sides of a gypsum dewatering stack upon closure.

(4) You must submit your plan for approval to the Administrator at least 6 months prior to the compliance date specified in § 63.602(d), or with the permit application for modification, construction, or reconstruction. The plan must include details on how you will implement and show compliance

with the control technique(s) that you have selected to use. The Administrator will approve or disapprove your plan within 90 days after receipt of the plan. To change any of the information submitted in the plan, you must submit a revised plan 60 days before the planned change is to be implemented in order to allow time for review and approval by the Administrator before the change is implemented.

(f) Beginning on [**insert date of publication in the Federal Register**], during periods of startup and shutdown (as defined in § 63.601), you must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, you must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

§ 63.603 [Reserved]

§ 63.604 [Reserved]

§ 63.605 Operating and monitoring requirements.

(a) For each wet-process phosphoric acid process line or superphosphoric acid process line subject to the provisions of this subpart, you must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in § 63.608(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.

(2) Maintain a daily record of equivalent P_2O_5 feed. Calculate the equivalent P_2O_5 feed by determining the total mass rate, in metric ton/hour of phosphorus bearing feed, using the monitoring system specified in paragraph (a)(1) of this section and the procedures specified in § 63.606(f)(3).

(b) For each phosphate rock dryer or phosphate rock calciner subject to the provisions of this subpart, you must comply with the monitoring requirements specified in paragraphs (b)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a CMS according to your site-specific monitoring plan specified in § 63.608(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record either:

(i) The mass flow of phosphorus-bearing feed material to the phosphate rock dryer or calciner, or

(ii) The mass flow of product from the phosphate rock dryer or calciner.

(2) Maintain the records specified in paragraphs (b)(2)(i) and (ii) of this section.

(i) If you monitor the mass flow of phosphorus-bearing feed material to the phosphate rock dryer or calciner as specified in paragraph (b)(1)(i) of this section, maintain a daily record of phosphate rock feed by determining the total mass rate in metric tons/hour of phosphorus-bearing feed.

(ii) If you monitor the mass flow of product from the phosphate rock dryer or calciner as specified in paragraph (b)(1)(ii) of this section, maintain a daily record of product by determining the total mass rate in metric ton/hour of product.

(c) For each purified phosphoric acid process line, you must comply with the monitoring requirements specified in paragraphs (c)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a CMS according to your site-specific monitoring plan specified in § 63.608(c). The CMS must continuously measure and permanently record the stack gas exit temperature for each chiller stack.

(2) Measure and record the concentration of methyl isobutyl ketone in each product acid stream and each raffinate stream once each day.

(d) If you use a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, you

must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (5) of this section.

(1) You must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable.

(i) Except as specified in paragraph (d)(1)(ii) of this section, determine the value(s) as the arithmetic average of operating parameter measurements recorded during the three test runs conducted for the most recent performance test.

(ii) If you use an absorber or a wet electrostatic precipitator to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber or secondary voltage for a wet electrostatic precipitator, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.

(A) The allowable range for the daily averages of the pressure drop across an absorber, or secondary voltage for a wet electrostatic precipitator, is ±20 percent of the baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ±20 percent

adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(B) As an alternative to paragraph (d)(1)(ii)(A) of this section, you may establish allowable ranges for the daily averages of the pressure drop across an absorber, or secondary voltage for an electrostatic precipitator, for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. You must establish the allowable ranges based on the baseline average values recorded during previous performance tests, or the results of performance tests conducted specifically for the purposes of this paragraph. You must conduct all performance tests using the methods specified in § 63.606. You must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

(2) You must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart.

(3) You must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart.

(4) If you use a non-regenerative adsorption system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart, you must comply with the requirements specified in paragraph (e) of this section.

(5) If you use a sorbent injection system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart and you use a fabric filter to collect the associated particulate matter, the system must meet the requirements for fabric filters specified in paragraph (f) of this section.

(e) If you use a non-regenerative adsorption system to achieve the mercury emission limits specified in Table 1 or 2 to this subpart, you must comply with the requirements specified in paragraphs (e)(1) through (3) of this section.

(1) Determine the adsorber bed life (i.e., the expected life of the sorbent in the adsorption system) using the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) If the adsorber bed is expected (designed) to have a life of less than 2 years, determine the outlet concentration of mercury on a quarterly basis until breakthrough occurs for the first three adsorber bed change-outs. The adsorber bed life shall equal the average length of time between each of the three change-outs.

(ii) If the adsorber bed is expected (designed) to have a life of 2 years or greater, determine the outlet concentration of mercury on a semi-annual basis until breakthrough occurs for the first two adsorber bed change-outs. The adsorber bed life must equal the average length of time between each of the two change-outs.

(iii) If more than one adsorber is operated in parallel, or there are several identical operating lines controlled by adsorbers, you may determine the adsorber bed life by measuring the outlet concentration of mercury from one of the adsorbers or adsorber systems rather than determining the bed life for each adsorber.

(iv) The adsorber or adsorber system you select for the adsorber bed life test must have the highest expected inlet gas mercury concentration and the highest operating rate of any adsorber in operation at the affected source. During the test to determine adsorber bed life, you must use the fuel that contains

the highest level of mercury in any fuel-burning unit associated with the adsorption system being tested.

(2) You must replace the sorbent in each adsorber on or before the end of the adsorbent bed life, calculated in paragraph (e)(1) of this section.

(3) You must re-establish the adsorber bed life if the sorbent is replaced with a different brand or type, or if any process changes are made that would lead to a shorter bed lifetime.

(f) Beginning [**insert date 1 year after the date of publication in the Federal Register**], if you use a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, then the fabric filter must be equipped with a bag leak detection system that is installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (f)(1) through (10) of this section.

(1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive-pressure fabric filter) of the fabric filter.

(2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter

emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic feet) or less.

(3) Use a bag leak detection system equipped with a device to continuously record the output signal from the system sensor.

(4) Use a bag leak detection system equipped with a system that will trigger an alarm when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located such that the alert is observed readily by plant operating personnel.

(5) Install a bag leak detection system in each compartment or cell for positive-pressure fabric filter systems that do not duct all compartments or cells to a common stack. Install a bag leak detector downstream of the fabric filter if a negative-pressure or induced-air filter system is used. If multiple bag leak detectors are required, the system’s instrumentation and alarm may be shared among detectors.

(6) Calibration of the bag leak detection system must, at a minimum, consist of establishing the baseline output level by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(7) After initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time except as established in your site-specific monitoring plan required in § 63.608(c). In no event may the

sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete inspection of the fabric filter system that demonstrates that the system is in good operating condition.

(8) Operate and maintain each fabric filter and bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. If the alarm sounds more than 5 percent of the operating time during a 6-month period, it is considered an operating parameter exceedance. Calculate the alarm time (i.e., time that the alarm sounds) as specified in paragraphs (f)(8)(i) through (iii) of this section.

(i) If inspection of the fabric filter demonstrates that corrective action is not required, the alarm duration is not counted in the alarm time calculation.

(ii) If corrective action is required, each alarm time is counted as a minimum of 1 hour.

(iii) If it takes longer than 1 hour to initiate corrective action, each alarm time is counted as the actual amount of time taken to initiate corrective action.

(9) If the alarm on a bag leak detection system is triggered, you must initiate procedures within 1 hour of an alarm to identify the cause of the alarm and then initiate

corrective action, as specified in § 63.608(d)(2), no later than 48 hours after an alarm. Failure to take these actions within the prescribed time periods is considered a violation.

(10) Retain records of any bag leak detection system alarm, including the date, time, duration, and the percent of the total operating time during each 6-month period that the alarm sounds, with a brief explanation of the cause of the alarm, the corrective action taken, and the schedule and duration of the corrective action.

(g) If you choose to directly monitor mercury emissions instead of using CPMS as specified in paragraph (d) of this section, then you must install and operate a mercury CEMS in accordance with Performance Specification 12A of appendix B to part 60 of this chapter, or a sorbent trap-based integrated monitoring system in accordance with Performance Specification 12B of appendix B to part 60 of this chapter. You must continuously monitor mercury emissions as specified in paragraphs (g)(1) through (4) of this section.

(1) The span value for any mercury CEMS must include the intended upper limit of the mercury concentration measurement range during normal operation, which may be exceeded during other short-term conditions lasting less than 24 consecutive operating hours. However, the span should be at least equivalent to approximately two times the emissions standard. You may round

the span value to the nearest multiple of 10 micrograms per cubic meter of total mercury.

(2) You must operate and maintain each mercury CEMS or sorbent trap-based integrated monitoring system according to the quality assurance requirements specified in Procedure 5 of appendix F to part 60 of this chapter.

(3) You must conduct relative accuracy testing of mercury monitoring systems, as specified in Performance Specification 12A, Performance Specification 12B, or Procedure 5 of appendix B to part 60 of this chapter, at normal operating conditions.

(4) If you use a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to your site-specific monitoring plan specified in § 63.608(c).

§ 63.606 Performance tests and compliance provisions.

(a) You must conduct an initial performance test to demonstrate compliance with the applicable emission limits specified in Tables 1 and 2 to this subpart, within 180 days of the applicable compliance date specified in § 63.602.

(b) After you conduct the initial performance test specified in paragraph (a) of this section, you must conduct a performance test once per calendar year.

(c) For affected sources (as defined in § 63.600) that have not operated since the previous annual performance test was conducted and more than 1 year has passed since the previous performance test, you must conduct a performance test no later than 180 days after the re-start of the affected source according to the applicable provisions in § 63.7(a)(2).

(d)(1) You must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:

(i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and

(ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test.

(2) You must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, you must make available to the Administrator such

records as may be necessary to determine the conditions of performance tests.

(e) In conducting all performance tests, you must use as reference methods and procedures the test methods in 40 CFR part 60, appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).

(f) You must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

(1) Compute the emission rate (E) of total fluorides for each run using Equation AA-1:

$$E = \left(\sum_{i=1}^{N} C_i Q_i \right) / (PK) \qquad \text{(Eq. AA-1)}$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P_2O_5 feed.

C_i = Concentration of total fluorides from emission point "i," milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point "i," dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P_2O_5 feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

(2) You must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.

(3) Compute the equivalent P_2O_5 feed rate (P) using Equation AA-2:

$$P = M_p R_p \qquad \text{(Eq. AA-2)}$$

Where:

P = P_2O_5 feed rate, metric ton/hr (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P_2O_5 content, decimal fraction.

(i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in § 63.605(a).

(ii) Determine the P_2O_5 content (R_p) of the feed using, as appropriate, the following methods specified in Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see § 63.14) where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method A-Volumetric Method.

(C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B-Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method C-Spectrophotometric Method.

(E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A-Volumetric Method.

(F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B-Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C-Spectrophotometric Method.

(g) You must demonstrate compliance with the applicable particulate matter standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (g)(1) through (3) of this section.

(1) Compute the emission rate (E) of particulate matter for each run using Equation AA-3:

$$E = (C\ Q)/(P\ K) \qquad \text{(Eq. AA-3)}$$

Where:

E = Emission rate of particulate matter, kilogram/megagram (pound/ton) of phosphate rock feed.

C = Concentration of particulate matter, gram/dry standard cubic meter (gram/dry standard cubic feet).

Q = Volumetric flow rate of effluent gas, dry standard cubic meter/hour (dry standard cubic feet/hour).

P = Phosphate rock feed rate, megagram/hour (ton/hour).

K = Conversion factor, 1000 grams/kilogram (453.6 grams/pound).

(2) Use Method 5 at 40 CFR part 60, appendix A-3 to determine the particulate matter concentration (C) and volumetric flow rate (Q) of the effluent gas. Except as specified in paragraph (h) of this section, the sampling time and sample volume for each run must be at least 60 minutes and 0.85 dry standard cubic meter (30 dry standard cubic feet).

(3) Use the CMS described in § 63.605(b) to determine the phosphate rock feed rate (P) for each run.

(h) To demonstrate compliance with the particulate matter standards for phosphate rock calciners specified in Tables 1 and 2 to this subpart, you must use Method 5 at 40 CFR part 60, appendix A-3 to determine the particulate matter concentration.

The sampling volume for each test run must be at least 1.70 dry standard cubic meter.

(i) To demonstrate compliance with the mercury emission standards for phosphate rock calciners specified in Tables 1 and 2 to this subpart, you must use Method 30B at 40 CFR part 60, appendix A-8 to determine the mercury concentration, unless you use a CEMS to demonstrate compliance. If you use a non-regenerative adsorber to control mercury emissions, you must use this test method to determine the expected bed life as specified in § 63.605(e)(1).

(j) If you choose to monitor the mass flow of product from the phosphate rock dryer or calciner as specified in § 63.605(b)(1)(ii), you must either:

(1) Simultaneously monitor the feed rate and output rate of the phosphate rock dryer or calciner during the performance test, or

(2) Monitor the output rate and the input and output moisture contents of the phosphate rock dryer or calciner during the performance test and calculate the corresponding phosphate rock dryer or calciner input rate.

(k) For sorbent injection systems, you must conduct the performance test at the outlet of the fabric filter used for sorbent collection. You must monitor and record operating parameter values for the fabric filter during the performance

test. If the sorbent is replaced with a different brand or type of sorbent than was used during the performance test, you must conduct a new performance test.

(l) If you use a mercury CEMS as specified in § 63.605(g), or paragraph (i) of this section, you must demonstrate initial compliance based on the first 30 operating days during which you operate the affected source using a CEMS. You must obtain hourly mercury concentration and stack gas volumetric flow rate data.

(m) If you use a CMS, you must conduct a performance evaluation, as specified in § 63.8(e), in accordance with your site-specific monitoring plan in § 63.608(c). For fabric filters, you must conduct a performance evaluation of the bag leak detection system consistent with the guidance provided in Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see § 63.14). You must record the sensitivity of the bag leak detection system to detecting changes in particulate matter emissions, range, averaging period, and alarm set points during the performance test.

§ 63.607 Notification, recordkeeping, and reporting requirements.

(a) You must comply with the notification requirements specified in § 63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while

operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, § 63.7(g)(1), or § 63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

(b) You must comply with the reporting and recordkeeping requirements in § 63.10 as specified in paragraphs (b)(1) through (5) of this section.

(1) You must comply with the general recordkeeping requirements in § 63.10(b)(1).

(2) As required by § 63.10(d), you must report the results of the initial and subsequent performance tests as part of the

notification of compliance status required in § 63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to § 63.605, as applicable. In the notification of compliance status, you must also:

(i) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in § 63.602(c).

(ii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see § 63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.

(iii) Submit the gypsum dewatering stack and cooling pond management plan specified in § 63.602(e).

(iv) If you elect to demonstrate compliance by following the procedures in § 63.605(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.

(v) Each time a gypsum dewatering stack is closed, certify to the Administrator within 90 days of closure, that the final cover of the closed gypsum dewatering stack is a drought resistant vegetative cover that includes a barrier soil layer that will sustain vegetation.

(3) As required by § 63.10(e)(3), you must submit an excess emissions report for any exceedance of an emission limit, work practice standard, or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in § 63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. You must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If you report exceedances, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in § 63.10(e)(3)(ii).

(4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:

(i) The date, time and duration of the failure.

(ii) A list of the affected sources or equipment for which a failure occurred.

(iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.

(iv) A description of the method used to estimate the emissions.

(v) A record of actions taken to minimize emissions in accordance with § 63.608(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(5) You must submit a summary report containing the information specified in § 63.10(e)(3)(vi). You must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

(c) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provides access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(d) In computing averages to determine compliance with this subpart, you must exclude the monitoring data specified in paragraphs (d)(1) and (2) of this section.

(1) Periods of non-operation of the process unit;

(2) Periods of no flow to a control device; and any monitoring data recorded during CEMS or continuous parameter monitoring system (CPMS) breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

(e) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (http://www.epa.gov/ttn/chief/ert/index.html), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the

EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(f) Within 60 days after the date of completing each continuous emissions monitoring system performance evaluation (as defined in §63.2), you must submit the results of the

performance evaluation following the procedure specified in either paragraph (f)(1) or (2) of this section.

(1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance evaluation data in an electronic file format consistent with the XML schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

§ 63.608 General requirements and applicability of general provisions of this part.

(a) You must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

(b) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(c) For each CMS (including CEMS or CPMS) used to demonstrate compliance with any applicable emission limit or work practice, you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. You must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under § 63.8(f).

(1) You must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.

(i) Location of the CMS sampling probe or other interface. You must include a justification demonstrating that the sampling probe or other interface is at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.

(v) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d)(1) and (2) and Table 5 to this subpart.

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(2) You must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.

(3) You must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep previous (i.e., superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under §63.8(d)(2) in the plan.

(d) For each bag leak detection system installed to comply with the requirements specified in § 63.605(f), you must include the information specified in paragraphs (d)(1) and (2) of this section in the site-specific monitoring plan specified in paragraph (c) of this section.

(1) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including how the alarm set point will be established.

(2) A corrective action plan describing corrective actions to be taken and the timing of those actions when the bag leak detection alarm sounds. Corrective actions may include, but are not limited to, the actions specified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in regulated material emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Shutting down the process controlled by the fabric filter.

§ 63.609 [Reserved]

§ 63.610 Exemption from new source performance standards.

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart T, subpart U, or subpart NN. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is effective upon the date that you demonstrate to the Administrator that the requirements of §§ 63.605 and 63.606 have been met.

§ 63.611 Implementation and enforcement.

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

(b) The authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

(1) Approval of alternatives to the requirements in §§ 63.600, 63.602, 63.605, and 63.610.

(2) Approval of requests under §§ 63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in §63.90.

(3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.

(4) Waiver or approval of requests under § 63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in § 63.90.

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

Table 1 to Subpart AA of Part 63—Existing Source Emission Limits[a,b]

For the following existing sources...	You must meet the emission limits for the specified pollutant...		
	Total Fluorides	Total Particulate	Mercury
Wet-Process Phosphoric Acid Line	0.020 lb/ton of equivalent P_2O_5 feed	--	--
Superphosphoric Acid Process Line[c]	0.010 lb/ton of equivalent P_2O_5 feed	--	--
Superphosphoric Acid Submerged Line with a	0.20 lb/ton of equivalent P_2O_5	--	--

For the following existing sources...	You must meet the emission limits for the specified pollutant...		
Submerged Combustion Process	feed		
Phosphate Rock Dryer	--	0.2150 lb/ton of phosphate rock feed	--
Phosphate Rock Calciner	9.0E-04 lb/ton of rock feed[d]	0.181 g/dscm	0.14 mg/dscm corrected to 3 percent oxygen[d]

[a] The existing source compliance date is June 10, 2002, except as noted.
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.602(f).
[c] Beginning on [**insert date 1 year after the date of publication in the Federal Register**], you must include oxidation reactors in superphosphoric acid process lines when determining compliance with the total fluorides limit.
[d] Compliance date is [**insert date of publication in the Federal Register**].

Table 2 to Subpart AA of Part 63—New Source Emission Limits[a,b]

For the following new sources...	You must meet the emissions limits for the specified pollutant...		
	Total Fluorides	Total Particulate	Mercury
Wet-Process Phosphoric Acid Line	0.0135 lb/ton of equivalent P_2O_5 feed	--	--
Superphosphoric Acid Process Line[c]	0.00870 lb/ton of equivalent P_2O_5 feed	--	--
Phosphate Rock Dryer	--	0.060 lb/ton of phosphate rock feed	--
Phosphate Rock Calciner	9.0E-04 lb/ton of rock feed	0.092 g/dscm	0.014 mg/dscm corrected to 3 percent oxygen

[a] The new source compliance dates are based on date of construction or reconstruction as specified in § 63.602(a).
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.602(f).
[c] Beginning on [**insert date 1 year after the date of publication in the Federal Register**], you must include oxidation reactors in superphosphoric acid process lines when determining compliance with the total fluorides limit.

Table 3 to Subpart AA of Part 63—Monitoring Equipment Operating Parameters

You must...	If...	And you must monitor...	And...
Absorbers (Wet Scrubbers)			

You must...	If...	And you must monitor...	And...
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio.	Influent liquid flow.	--
Install CPMS for liquid and gas flow at the inlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow.	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the inlet gas flow rate. The units of measure must be consistent with those used to calculate this ratio during the performance test.	You must measure the gas stream by: Measuring the gas stream flow at the absorber inlet; or Using the design blower capacity, with appropriate adjustments for pressure drop.
Install CPMS for pressure at the gas stream inlet and outlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more.	Pressure drop through the absorber.	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established.
Sorbent Injection			
Install a CPMS for flow rate.	--	Sorbent injection rate.	--
Install a CPMS for flow rate.	--	Sorbent injection carrier gas flow rate.	--
Wet Electrostatic Precipitators			

You must...	If...	And you must monitor...	And...
Install secondary voltage meter	You control mercury or metal HAP (particulate matter) using an electrostatic precipitator.	Secondary voltage	--

Table 4 to Subpart AA of Part 63—Operating Parameters, Operating Limits and Data Monitoring, Recordkeeping and Compliance Frequencies

For the operating parameter applicable to you, as specified in Table 3...	You must establish the following operating limit...	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies...		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes	Daily
Influent liquid flow rate and gas stream flow rate	Minimum influent liquid-to-gas ratio	Continuous	Every 15 minutes	Daily
Pressure drop	Pressure drop range	Continuous	Every 15 minutes	Daily
Sorbent Injection				
Sorbent injection rate	Minimum injection rate	Continuous	Every 15 minutes	Daily
Sorbent injection carrier gas flow rate	Minimum carrier gas flow rate	Continuous	Every 15 minutes	Daily
Fabric Filters				
Alarm time	Maximum alarm time is not established on a site-specific basis but is specified in § 63.605(f)(9)	Continuous	Each date and time of alarm start and stop	Maximum alarm time specified in §63.605(f)(9)
Wet Electrostatic Precipitator				
Secondary voltage	Secondary voltage range	Continuous	Every 15 minutes	Daily

Table 5 to Subpart AA of Part 63—Calibration and Quality Control Requirements for Continuous Parameter Monitoring System (CPMS)

If you monitor this parameter...	Your accuracy requirements are...	And your calibration requirements are...
Temperature	± 1 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for non-cryogenic temperature ranges. ± 2.5 percent over the normal range of temperature measured or 2.8 degrees Celsius (5 degrees Fahrenheit), whichever is greater, for cryogenic temperature ranges.	Performance evaluation annually and following any period of more than 24 hours throughout which the temperature exceeded the maximum rated temperature of the sensor, or the data recorder was off scale. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant temperature sensor. Selection of a representative measurement location.
Flow Rate	± 5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate. ± 5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate. ± 5 percent over the normal range measured for mass flow rate.	Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor. Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.

If you monitor this parameter...	Your accuracy requirements are...	And your calibration requirements are...
Pressure	± 5 percent over the normal range measured or 0.12 kilopascals (0.5 inches of water column), whichever is greater.	Checks for obstructions (e.g., pressure tap pluggage) at least once each process operating day. Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor. Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.
Sorbent Injection Rate	± 5 percent over the normal range measured.	Performance evaluation annually. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant sensor. Select a representative measurement location that provides measurement of total sorbent injection.
Secondary voltage	± 1kV	---

Appendix A to Subpart AA of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart AA

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.1(a)(1) through (4)	General Applicability	Yes.	None.
§ 63.1(a)(5)		No	[Reserved].
§ 63.1(a)(6)	Contact information	Yes.	None.
§ 63.1(a)(7)-(9)		No	[Reserved].
§ 63.1(a)(10) through (12)	Time periods	Yes.	None.
§ 63.1(b)	Initial Applicability Determination	Yes.	None.
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	None.
§ 63.1(c)(2)	Permits	Yes.	Some plants may be area sources.
§ 63.1(c)(3)-(4)		No	[Reserved].
§ 63.1(c)(5)	Area to Major source change	Yes.	None.
§ 63.1(d)		No	[Reserved].
§ 63.1(e)	Applicability of Permit Program	Yes.	None.
§ 63.2	Definitions	Yes.	Additional definitions in § 63.601.
§ 63.3	Units and Abbreviations	Yes.	None.
§ 63.4(a)(1) and (2)	Prohibited Activities	Yes.	None.
§ 63.4(a)(3)through (5)		No	[Reserved].
§ 63.4(b) and (c)	Circumvention/Fragmentation	Yes.	None.
§ 63.5(a)	Construction/Reconstruction Applicability	Yes.	None.
§ 63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.5(b)(2)		No	[Reserved].
§ 63.5(b)(3), (4), and (6)	Construction /Reconstruction approval and notification	Yes.	None.
§ 63.5(b)(5)		No	[Reserved]
§ 63.5(c)		No	[Reserved].
§ 63.5(d)	Application for Approval of Construction/ Reconstruction	Yes.	None.
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	None.
§ 63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	None.
§ 63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	None.
§ 63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also § 63.602.
§ 63.6(b)(6)		No	[Reserved].
§ 63.6(b)(7)	Area to major source change	Yes.	None.
§ 63.6(c)(1)and (2)	Existing Sources Dates	Yes.	§ 63.602 specifies dates.
§ 63.6(c)(3) and (4)		No	[Reserved].
§ 63.6(c)(5)	Area to major source change	Yes.	None.
§ 63.6(d)		No	[Reserved].
§ 63.6(e)(1)(i) and (ii)	Operation & Maintenance Requirements	No	See § 63.608(b)for general duty requirement.
§ 63.6(e)(iii)		Yes	None.
§ 63.6(e)(2)		No	[Reserved]

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No	None.
§ 63.6(f)	Compliance with Emission Standards	No	See general duty at § 63.608(b).
§ 63.6(g)	Alternative Standard	Yes.	None.
§ 63.6(h)	Compliance with Opacity/VE Standards	No	Subpart AA does not include VE/opacity standards.
§ 63.6(i)(1) through (14)	Extension of Compliance	Yes.	None.
§ 63.6(i)(15)		No	[Reserved].
§ 63.6(i)(16)		Yes.	None.
§ 63.6(j)	Exemption from Compliance	Yes.	None.
§ 63.7(a)	Performance Test Requirements Applicability	Yes.	None.
§ 63.7(b)	Notification	Yes.	None.
§ 63.7(c)	Quality Assurance/Test Plan	Yes.	None.
§ 63.7(d)	Testing Facilities	Yes.	None.
§ 63.7(e)(1)	Conduct of Tests; startup, shutdown, and malfunction provisions	No.	§ 63.606 specifies additional requirements.
§ 63.7(e)(2)through (4)	Conduct of Tests	Yes.	§ 63.606 specifies additional requirements.
§ 63.7(f)	Alternative Test Method	Yes.	None.
§ 63.7(g)	Data Analysis	Yes.	None.
§ 63.7(h)	Waiver of Tests	Yes.	None.
§ 63.8(a)	Monitoring Requirements Applicability	Yes.	None.
§ 63.8(b)	Conduct of Monitoring	Yes.	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No	See 63.608(b) for general duty requirement.
§ 63.8(c)(1)(ii)		Yes	None.
§ 63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No	None.
§ 63.8(c)(2) through (4)	CMS Operation/Maintenance	Yes.	None.
§ 63.8(c)(5)	COMS Operation	No	Subpart AA does not require COMS.
§ 63.8(c)(6) through (8)	CMS requirements	Yes	None.
§ 63.8(d)(1) and (2)	Quality Control	Yes.	None.
§ 63.8(d)(3)	Written procedure for CMS	No	See § 63.608 for requirement
§ 63.8(e)	CMS Performance Evaluation	Yes	None.
§ 63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	None.
§ 63.8(f)(6)	Alternative to RATA Test	Yes	None.
§ 63.8(g)(1)	Data Reduction	Yes.	None.
§ 63.8(g)(2)		Yes	None.
§ 63.8(g)(3) through (5)		Yes.	None.
§ 63.9(a)	Notification Requirements Applicability	Yes.	None.
§ 63.9(b)	Initial Notifications	Yes.	None.
§ 63.9(c)	Request for Compliance Extension	Yes.	None.
§ 63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.9(e)	Notification of Performance Test	Yes.	None.
§ 63.9(f)	Notification of VE/Opacity Test	No	Subpart AA does not include VE/opacity standards.
§ 63.9(g)	Additional CMS Notifications	Yes	Subpart AA does not require CMS performance evaluation, COMS, or CEMS.
§ 63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	None.
§ 63.9(h)(4)		No	[Reserved].
§ 63.9(h)(5) and (6)		Yes.	None.
§ 63.9(i)	Adjustment of Deadlines	Yes.	None.
§ 63.9(j)	Change in Previous Information	Yes.	None.
§ 63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	None.
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes.	None.
§ 63.10(b)(2)(i)	Startup or shutdown duration	No	None.
§ 63.10(b)(2)(ii)	Malfunction	No	See § 63.607 for recordkeeping and reporting requirement
§ 63.10(b)(2)(iii)	Maintenance records	Yes	None.
§ 63.10(b)(2)(iv) and (v)	Startup, shutdown, malfunction actions	No	None.
§ 63.10(b)(2)(vi) through (xiv)	General Recordkeeping Requirements	Yes	None.
§ 63.10(b)(3)	General Recordkeeping Requirements	Yes	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.10(c)(1)	Additional CMS Recordkeeping	Yes.	None.
§ 63.10(c)(2) through (4)		No	[Reserved].
§ 63.10(c)(5)		Yes.	None.
§ 63.10(c)(6)		Yes	None.
§ 63.10(c)(7) and (8)		Yes	None.
§ 63.10(c)(9)		No	[Reserved].
§ 63.10(c)(10) through (13)		Yes	None.
§ 63.10(c)(14)		Yes	None.
§ 63.10(c)(15)	Startup Shutdown Malfunction Plan Provisions	No	None.
§ 63.10(d)(1)	General Reporting Requirements	Yes.	None.
§ 63.10(d)(2)	Performance Test Results	Yes.	None.
§ 63.10(d)(3)	Opacity or VE Observations	No	Subpart AA does not include VE/opacity standards.
§ 63.10(d)(4)	Progress Reports	Yes.	None.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No	See § 63.607 for reporting of excess emissions
§ 63.10(e)(1) and (2)	Additional CMS Reports	Yes	None.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	None.
§ 63.10(e)(4)	COMS Data Reports	No	Subpart AA does not require COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	None.
§ 63.11	Control Device and Work Practice Requirements	Yes.	None.

40 CFR citation	Requirement	Applies to subpart AA	Comment
§ 63.12	State Authority and Delegations	Yes.	None.
§ 63.13	Addresses	Yes.	None.
§ 63.14	Incorporation by Reference	Yes.	None.
§ 63.15	Information Availability/Confidentiality	Yes.	None.
§ 63.16	Performance Track Provisions	No	Terminated

21. Part 63 is amended by revising subpart BB to read as follows:

Subpart BB—National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants

Sec.

63.620 Applicability.
63.621 Definitions.
63.622 Standards and compliance dates.
63.623 [Reserved]
63.624 [Reserved]
63.625 Operating and monitoring requirements.
63.626 Performance tests and compliance provisions.
63.627 Notification, recordkeeping, and reporting requirements.
63.628 General requirements and applicability of general provisions of this part.
63.629 Miscellaneous requirements.
63.630 [Reserved]
63.631 Exemption from new source performance standards.
63.632 Implementation and enforcement.
Table 1 to Subpart BB of Part 63—Existing Source Emission Limits
Table 2 to Subpart BB of Part 63—New Source Emission Limits
Table 3 to Subpart BB of Part 63—Monitoring Equipment Operating Parameters

Table 4 to Subpart BB of Part 63—Operating Parameters, Operating Limits and Data Monitoring, Recordkeeping and Compliance Frequencies
Table 5 to Subpart BB of Part 63—Calibration and Quality Control Requirements for Continuous Parameter Monitoring Systems (CPMS)
Appendix A to Subpart BB of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB

§ 63.620 Applicability.

(a) Except as provided in paragraphs (c) and (d) of this section, you are subject to the requirements of this subpart if you own or operate a phosphate fertilizer production plant that is a major source as defined in § 63.2. You must comply with the emission limitations, work practice standards, and operating parameter requirements specified in this subpart at all times.

(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAP) emitted from the following affected sources at a phosphate fertilizer production plant:

(1) Each phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line).

(2) Each granular triple superphosphate process line.

(3) Each granular triple superphosphate storage building.

(4) Evaporative cooling tower.

(c) The requirements of this subpart do not apply to a phosphate fertilizer production plant that is an area source as defined in § 63.2.

(d) The provisions of this subpart do not apply to research and development facilities as defined in § 63.621.

§ 63.621 Definitions.

Terms used in this subpart are defined in § 63.2 of the Clean Air Act and in this section as follows:

Diammonium and/or monoammonium phosphate process line means any process line manufacturing granular diammonium and/or monoammonium phosphate by reacting ammonia with phosphoric acid that has been derived from or manufactured by reacting phosphate rock and acid. A diammonium and/or monoammonium phosphate process line includes: reactors, granulators, dryers, coolers, screens, and mills.

Equivalent P_2O_5 feed means the quantity of phosphorus, expressed as phosphorus pentoxide (P_2O_5), fed to the process.

Equivalent P_2O_5 stored means the quantity of phosphorus, expressed as phosphorus pentoxide, being cured or stored in the affected facility.

Evaporative cooling tower means an open-water, re-circulating device that uses fans or natural draft to draw or force ambient air through the device to remove heat from process water by direct contact.

Exceedance means a departure from an indicator range established for monitoring under this subpart, consistent with

any averaging period specified for averaging the results of the monitoring.

Existing source depends on the date that construction or reconstruction of an affected source commenced. A phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, or granular triple superphosphate storage is an existing source if construction or reconstruction of the affected source commenced on or before December 27, 1996.

Fresh granular triple superphosphate means granular triple superphosphate produced within the preceding 72 hours.

Granular triple superphosphate process line means any process line, not including storage buildings, that manufactures granular triple superphosphate by reacting phosphate rock with phosphoric acid. A granular triple superphosphate process line includes: mixers, curing belts (dens), reactors, granulators, dryers, coolers, screens, and mills.

Granular triple superphosphate storage building means any building curing or storing fresh granular triple superphosphate. A granular triple superphosphate storage building includes: storage or curing buildings, conveyors, elevators, screens, and mills.

New source depends on the date that construction or reconstruction of an affected source commences. A phosphate

fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, or granular triple superphosphate storage is a new source if construction or reconstruction of the affected source commenced after December 27, 1996.

Phosphate fertilizer process line means any process line that manufactures a granular phosphate fertilizer by reacting phosphoric acid with ammonia. A phosphate fertilizer process line includes: reactors, granulators, dryers, coolers, screens, and mills.

Phosphate fertilizer production plant means any production plant that manufactures a granular phosphate fertilizer by reacting phosphoric acid with ammonia.

Research and development facility means research or laboratory operations whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and where the facility is not engaged in the manufacture of products for commercial sale in commerce or other off-site distribution, except in a de minimis manner.

Shutdown commences when feed materials cease to be added to an affected source and ends when the affected source is deactivated, regardless of whether feed material is present in the affected source.

Startup commences when any feed material is first introduced into an affected source and ends when feed material is fully loaded into the affected source.

Total fluorides means elemental fluorine and all fluoride compounds, including the HAP hydrogen fluoride, as measured by reference methods specified in 40 CFR part 60, appendix A, Method 13 A or B, or by equivalent or alternative methods approved by the Administrator pursuant to §63.7(f).

§ 63.622 Standards and compliance dates.

(a) On and after the dates specified in paragraphs (a)(1) through (3) of this section, for each phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building, you must comply with the emission limits as specified in paragraphs (a)(1) through (3) of this section. If a process line contains more than one emission point, you must sum the emissions from all emission points in a process line to determine compliance with the specified emission limits.

(1) For each existing phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building that commenced construction or reconstruction on or before December 27, 1996, you must comply

with the emission limits specified in Table 1 to this subpart beginning on June 10, 2002.

(2) For each new phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building that commences construction or reconstruction after December 27, 1996 and on or before [**insert date of publication in the Federal Register**], you must comply with the emission limits specified in Table 2 to this subpart beginning on June 10, 1999 or at startup, whichever is later.

(3) For each new phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), granular triple superphosphate process line, and granular triple superphosphate storage building that commences construction or reconstruction after [**insert date of publication in the Federal Register**], you must comply with the emission limits specified in Table 2 to this subpart immediately upon startup.

(b) Beginning on June 10, 2002, you must not ship fresh granular triple superphosphate from your existing granular triple superphosphate storage building that commenced construction or reconstruction on or before December 27, 1996. Beginning on June 10, 1999 or at startup, whichever is later, you must not ship fresh granular triple superphosphate from your new granular triple superphosphate storage building that

commences construction or reconstruction after December 27, 1996.

(c) Beginning on [**insert date of publication in the Federal Register**], you must not introduce into any evaporative cooling tower any liquid effluent from any absorber installed to control emissions from process equipment.

(d) Beginning on [**insert date of publication in the Federal Register**], during periods of startup and shutdown (as defined in § 63.621), you must comply with the work practice specified in this paragraph in lieu of the emission limits specified in paragraph (a) of this section. During periods of startup and shutdown, you must operate any control device(s) being used at the affected source, monitor the operating parameters specified in Table 3 of this subpart, and comply with the operating limits specified in Table 4 of this subpart.

§ 63.623 [Reserved]

§ 63.624 [Reserved]

§ 63.625 Operating and monitoring requirements.

(a) For each phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), or granular triple superphosphate process line subject to the provisions of this subpart, you must comply with the monitoring requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Install, calibrate, maintain, and operate a continuous monitoring system (CMS) according to your site-specific monitoring plan specified in § 63.628(c). The CMS must have an accuracy of ±5 percent over its operating range and must determine and permanently record the mass flow of phosphorus-bearing material fed to the process.

(2) Maintain a daily record of equivalent P_2O_5 feed. Calculate the equivalent P_2O_5 feed by determining the total mass rate in metric ton/hour of phosphorus bearing feed using the procedures specified in § 63.626(f)(3).

(b) For each granular triple superphosphate storage building subject to the provisions of this subpart, you must maintain an accurate record of the mass of granular triple superphosphate in storage to permit the determination of the amount of equivalent P_2O_5 stored.

(c) For each granular triple superphosphate storage building subject to the provisions of this subpart, you must comply with the requirements specified in paragraphs (c)(1) and (2) of this section.

(1) Maintain a daily record of total equivalent P_2O_5 stored by multiplying the percentage P_2O_5 content, as determined by § 63.626(f)(3)(ii), by the total mass of granular triple superphosphate stored as specified in paragraph (b) of this section.

(2) Develop for approval by the Administrator a site-specific methodology including sufficient recordkeeping for the purposes of demonstrating compliance with § 63.622(b).

(d) If you use a control device(s) to comply with the emission limits specified in Table 1 or 2 of this subpart, you must install a continuous parameter monitoring system (CPMS) and comply with the requirements specified in paragraphs (d)(1) through (4) of this section.

(1) You must monitor the operating parameter(s) applicable to the control device that you use as specified in Table 3 to this subpart and establish the applicable limit or range for the operating parameter limit as specified in paragraphs (d)(1)(i) and (ii) of this section, as applicable.

(i) Except as specified in paragraph (d)(1)(ii) of this section, determine the value(s) as the arithmetic average of operating parameter measurements recorded during the three test runs conducted for the most recent performance test.

(ii) If you use an absorber to comply with the emission limits in Table 1 or 2 to this subpart and you monitor pressure drop across the absorber, you must establish allowable ranges using the methodology specified in paragraphs (d)(1)(ii)(A) and (B) of this section.

(A) The allowable range for the daily averages of the pressure drop across each absorber is ±20 percent of the

baseline average value determined in paragraph (d)(1)(i) of this section. The Administrator retains the right to reduce the ±20 percent adjustment to the baseline average values of operating ranges in those instances where performance test results indicate that a source's level of emissions is near the value of an applicable emissions standard. However, the adjustment must not be reduced to less than ±10 percent under any instance.

(B) As an alternative to paragraph (d)(1)(ii)(A) of this section, you may establish allowable ranges for the daily averages of the pressure drop across an absorber for the purpose of assuring compliance with this subpart using the procedures described in this paragraph. You must establish the allowable ranges based on the baseline average values recorded during previous performance tests or the results of performance tests conducted specifically for the purposes of this paragraph. You must conduct all performance tests using the methods specified in § 63.626. You must certify that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges. When a source using the methodology of this paragraph is retested, you must determine new allowable ranges of baseline average values unless the retest indicates no change in the operating parameters outside the previously established ranges.

(2) You must monitor, record, and demonstrate continuous compliance using the minimum frequencies specified in Table 4 to this subpart.

(3) You must comply with the calibration and quality control requirements that are applicable to the operating parameter(s) you monitor as specified in Table 5 to this subpart.

(4) If you use a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, the system must meet the requirements for fabric filters specified in paragraph (e) of this section.

(e) Beginning [**insert date 1 year after the date of publication in the Federal Register**], if you use a fabric filter system to comply with the emission limits specified in Table 1 or 2 to this subpart, then the fabric filter must be equipped with a bag leak detection system that is installed, calibrated, maintained and continuously operated according to the requirements in paragraphs (e)(1) through (10) of this section.

(1) Install a bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive-pressure fabric filter) of the fabric filter.

(2) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic feet) or less.

(3) Use a bag leak detection system equipped with a device to continuously record the output signal from the system sensor.

(4) Use a bag leak detection system equipped with a system that will trigger an alarm when an increase in relative particulate material emissions over a preset level is detected. The alarm must be located such that the alert is observed readily by plant operating personnel.

(5) Install a bag leak detection system in each compartment or cell for positive-pressure fabric filter systems that do not duct all compartments or cells to a common stack. Install a bag leak detector downstream of the fabric filter if a negative-pressure or induced-air filter is used. If multiple bag leak detectors are required, the system’s instrumentation and alarm may be shared among detectors.

(6) Calibration of the bag leak detection system must, at a minimum, consist of establishing the baseline output level by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(7) After initial adjustment, you must not adjust the sensitivity or range, averaging period, alarm set points or

alarm delay time, except as established in your site-specific monitoring plan required in § 63.628(c). In no event may the sensitivity be increased more than 100 percent or decreased by more than 50 percent over a 365-day period unless such adjustment follows a complete inspection of the fabric filter system that demonstrates that the system is in good operating condition.

(8) Operate and maintain each fabric filter and bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. If the alarm sounds more than 5 percent of the operating time during a 6-month period, it is considered an operating parameter exceedance. Calculate the alarm time (i.e., time that the alarm sounds) as specified in paragraphs (e)(8)(i) through (iii) of this section.

(i) If inspection of the fabric filter demonstrates that corrective action is not required, the alarm duration is not counted in the alarm time calculation.

(ii) If corrective action is required, each alarm time is counted as a minimum of 1 hour.

(iii) If it takes longer than 1 hour to initiate corrective action, each alarm time (i.e., time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.

(9) If the alarm on a bag leak detection system is triggered, you must initiate procedures within 1 hour of an alarm to identify the cause of the alarm and then initiate corrective action, as specified in § 63.628(d)(2), no later than 48 hours after an alarm. Failure to take these actions within the prescribed time periods is considered a violation.

(10) Retain records of any bag leak detection system alarm, including the date, time, duration, and the percent of the total operating time during each 6-month period that the alarm triggers, with a brief explanation of the cause of the alarm, the corrective action taken, and the schedule and duration of the corrective action.

§ 63.626 Performance tests and compliance provisions.

(a) You must conduct an initial performance test to demonstrate compliance with the emission limits specified in Tables 1 and 2 to this subpart, within 180 days of the applicable compliance date specified in § 63.622.

(b) After you conduct the initial performance test specified in paragraph (a) of this section, you must conduct a performance test once per calendar year.

(c) For affected sources (as defined in § 63.620) that have not operated since the previous annual performance test was conducted and more than 1 year has passed since the previous performance test, you must conduct a performance test no later

than 180 days after the re-start of the affected source according to the applicable provisions in § 63.7(a)(2).

(d)(1) You must conduct the performance tests specified in this section at representative (normal) conditions for the process. Representative (normal) conditions means those conditions that:

(i) Represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and

(ii) Are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition.

(2) Operations during startup, shutdown, and malfunction do not constitute representative (normal) operating conditions for purposes of conducting a performance test. You must record the process information that is necessary to document the operating conditions during the test and include in such record an explanation to support that such conditions represent representative (normal) conditions. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(e) In conducting all performance tests, you must use as reference methods and procedures the test methods in 40 CFR part

60, appendix A, or other methods and procedures as specified in this section, except as provided in § 63.7(f).

(f) For each phosphate fertilizer process line (e.g., diammonium and/or monoammonium phosphate process line), and granular triple superphosphate process line, you must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this subpart as specified in paragraphs (f)(1) through (3) of this section.

(1) Compute the emission rate (E) of total fluorides for each run using Equation BB-1:

$$E = \left(\sum_{i=1}^{N} C_i Q_i \right) / (PK) \qquad \text{(Eq. BB-1)}$$

Where:

E = Emission rate of total fluorides, gram/metric ton (pound/ton) of equivalent P_2O_5 feed.

Ci = Concentration of total fluorides from emission point "i," milligram/dry standard cubic meter (milligram/dry standard cubic feet).

Qi = Volumetric flow rate of effluent gas from emission point "i," dry standard cubic meter/hour (dry standard cubic feet/hour).

N = Number of emission points associated with the affected facility.

P = Equivalent P_2O_5 feed rate, metric ton/hour (ton/hour).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

(2) You must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i)

and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13 A, may be omitted.

(3) Compute the equivalent P_2O_5 feed rate (P) using Equation BB-2:

$$P = M_p R_p \qquad \text{(Eq. BB-2)}$$

Where:

P = P_2O_5 feed rate, metric ton/hour (ton/hour).

M_p = Total mass flow rate of phosphorus-bearing feed, metric ton/hour (ton/hour).

R_p = P_2O_5 content, decimal fraction.

(i) Determine the mass flow rate (M_p) of the phosphorus-bearing feed using the measurement system described in § 63.625 (a).

(ii) Determine the P_2O_5 content (R_p) of the feed using, as appropriate, the following methods specified in the Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see § 63.14) where applicable:

(A) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample.

(B) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus—P_2O_5 or $Ca_3(PO_4)_2$, Method A—Volumetric Method.

(C) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or $Ca_3(PO_4)_2$, Method B—Gravimetric Quimociac Method.

(D) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P_2O_5 or Ca3$(PO_4)_2$, Method C—Spectrophotometric Method.

(E) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method A—Volumetric Method.

(F) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method B—Gravimetric Quimociac Method.

(G) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P_2O_5, Method C—Spectrophotometric Method.

(g) For each granular triple superphosphate storage building, you must determine compliance with the applicable total fluorides standards specified in Tables 1 and 2 to this

subpart as specified in paragraphs (g)(1) through (7) of this section.

(1) You must conduct performance tests only when the following quantities of product are being cured or stored in the facility:

(i) Total granular triple superphosphate is at least 10 percent of the building capacity, and

(ii) Fresh granular triple superphosphate is at least six percent of the total amount of granular triple superphosphate, or

(iii) If the provision in paragraph (g)(1)(ii) of this section exceeds production capabilities for fresh granular triple superphosphate, the fresh granular triple superphosphate is equal to at least 5 days maximum production.

(2) Compute the emission rate (E) of total fluorides for each run using Equation BB-3:

$$E = \left(\sum_{i=1}^{N} C_i Q_i \right) / (PK) \qquad \text{(Eq. BB-3)}$$

Where:

E = Emission rate of total fluorides, gram/hour/metric ton (pound/hour/ton) of equivalent P_2O_5 stored.

C_i = Concentration of total fluorides from emission point "i," milligram/ dry standard cubic meter (milligram/ dry standard cubic feet).

Q_i = Volumetric flow rate of effluent gas from emission point "i," dry standard cubic meter/hour (dry standard cubic feet /hour).

N = Number of emission points in the affected facility.

P = Equivalent P_2O_5 stored, metric tons (tons).

K = Conversion factor, 1000 milligram/gram (453,600 milligram/pound).

(3) You must use Method 13A or 13B (40 CFR part 60, appendix A) to determine the total fluorides concentration (C_i) and the volumetric flow rate (Q_i) of the effluent gas at each emission point. The sampling time for each run at each emission point must be at least 60 minutes. The sampling volume for each run at each emission point must be at least 0.85 dscm (30 dscf). If Method 13B is used, the fusion of the filtered material described in Section 7.3.1.2 and the distillation of suitable aliquots of containers 1 and 2, described in section 7.3.3 and 7.3.4 in Method 13A, may be omitted.

(4) Compute the equivalent P_2O_5 stored (P) using Equation BB-4:

$$P = M_p R_p \qquad \text{(Eq. BB-4)}$$

Where:

P = P_2O_5 stored (ton).

M_p = Amount of product in storage, metric ton (ton).

R_p = P_2O_5 content of product in storage, weight fraction.

(5) Determine the amount of product (M_p) in storage using the measurement system described in § 63.625(b) and (c).

(6) Determine the P_2O_5 content (R_p) of the product stored using, as appropriate, the following methods specified in the

Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists (incorporated by reference, see § 63.14) where applicable:

(i) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus—P_2O_5, Method A—Volumetric Method.

(ii) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus—P_2O_5, Method B—Gravimetric Quimociac Method.

(iii) Section XI, Methods of Analysis For Phosphoric Acid, Superphosphate, Triple superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus—P_2O_5, Method C—Spectrophotometric Method, or,

(7) Determine the P_2O_5 content (R_p) of the product stored using, as appropriate, the following methods specified in the Official Methods of Analysis of AOAC International (incorporated by reference, see § 63.14) where applicable:

(i) AOAC Official Method 957.02 Phosphorus (Total) In Fertilizers, Preparation of Sample Solution.

(ii) AOAC Official Method 929.01 Sampling of Solid Fertilizers.

(iii) AOAC Official Method 929.02 Preparation of Fertilizer Sample.

(iv) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method.

(v) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method.

(vi) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method.

(vii) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method.

(h) If you use a CMS, you must conduct a performance evaluation, as specified in § 63.8(e), in accordance with your site-specific monitoring plan in § 63.628(c). For fabric filters, you must conduct a performance evaluation of the bag leak detection system consistent with the guidance provided in Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see § 63.14). You must record the sensitivity of the bag leak detection system to detecting changes in particulate matter emissions, range, averaging period, and alarm set points during the performance test.

§ 63.627 Notification, recordkeeping, and reporting requirements.

(a) You must comply with the notification requirements specified in § 63.9. During the most recent performance test, if you demonstrate compliance with the emission limit while

operating your control device outside the previously established operating limit, you must establish a new operating limit based on that most recent performance test and notify the Administrator that the operating limit changed based on data collected during the most recent performance test. When a source is retested and the performance test results are submitted to the Administrator pursuant to paragraph (b)(1) of this section, § 63.7(g)(1), or § 63.10(d)(2), you must indicate whether the operating limit is based on the new performance test or the previously established limit. Upon establishment of a new operating limit, you must thereafter operate under the new operating limit. If the Administrator determines that you did not conduct the compliance test in accordance with the applicable requirements or that the operating limit established during the performance test does not correspond to representative (normal) conditions, you must conduct a new performance test and establish a new operating limit.

(b) You must comply with the reporting and recordkeeping requirements in § 63.10 as specified in paragraphs (b)(1) through (5) of this section.

(1) You must comply with the general recordkeeping requirements in § 63.10(b)(1); and

(2) As required by § 63.10(d), you must report the results of the initial and subsequent performance tests as part of the

notification of compliance status required in § 63.9(h). You must verify in the performance test reports that the operating limits for each process have not changed or provide documentation of revised operating limits established according to § 63.625, as applicable. In the notification of compliance status, you must also:

(i) Certify to the Administrator that you have not shipped fresh granular triple superphosphate from an affected facility.

(ii) Certify to the Administrator annually that you have complied with the evaporative cooling tower requirements specified in § 63.622(c).

(iii) Submit analyses and supporting documentation demonstrating conformance with the Office Of Air Quality Planning And Standards (OAQPS), Fabric Filter Bag Leak Detection Guidance (incorporated by reference, see § 63.14) and specifications for bag leak detection systems as part of the notification of compliance status report.

(iv) If you elect to demonstrate compliance by following the procedures in § 63.625(d)(1)(ii)(B), certify to the Administrator annually that the control devices and processes have not been modified since the date of the performance test from which you obtained the data used to establish the allowable ranges.

(3) As required by § 63.10(e)(1), you must submit an excess emissions report for any exceedance of an emission or operating parameter limit if the total duration of the exceedances for the reporting period is 1 percent of the total operating time for the reporting period or greater. The report must contain the information specified in § 63.10 and paragraph (b)(4) of this section. When exceedances of an emission limit or operating parameter have not occurred, you must include such information in the report. You must submit the report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half. If exceedances are reported, you must submit the excess emissions report quarterly until a request to reduce reporting frequency is approved as described in § 63.10(e)(3).

(4) In the event that an affected unit fails to meet an applicable standard, record and report the following information for each failure:

(i) The date, time and duration of the failure.

(ii) A list of the affected sources or equipment for which a failure occurred.

(iii) An estimate of the volume of each regulated pollutant emitted over any emission limit.

(iv) A description of the method used to estimate the emissions.

(v) A record of actions taken to minimize emissions in accordance with § 63.628(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(5) You must submit a summary report containing the information specified in § 63.10(e)(3)(vi). You must submit the summary report semiannually and the report must be delivered or postmarked by the 30th day following the end of the calendar half.

(c) Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on site, or accessible from a central location by computer or other means that instantly provide access at the site, for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

(d) In computing averages to determine compliance with this subpart, you must exclude the monitoring data specified in paragraphs (d)(1) through (3) of this section.

(1) Periods of non-operation of the process unit;

(2) Periods of no flow to a control device; and

(3) Any monitoring data recorded during continuous parameter monitoring system (CPMS) breakdowns, out-of-control

periods, repairs, maintenance periods, instrument adjustments or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments.

(e) Within 60 days after the date of completing each performance test (as defined in §63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (e)(1) or (2) of this section.

(1) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (http://www.epa.gov/ttn/chief/ert/index.html), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate

electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(2) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

§ 63.628 General requirements and applicability of general provisions of this part.

(a) You must comply with the general provisions in subpart A of this part as specified in appendix A to this subpart.

(b) At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved.

Determination by the Administrator of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(c) For each CMS used to demonstrate compliance with any applicable emission limit, you must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan according to the requirements specified in paragraphs (c)(1) through (3) of this section. You must submit the site-specific monitoring plan, if requested by the Administrator, at least 60 days before the initial performance evaluation of the CMS. The requirements of this paragraph also apply if a petition is made to the Administrator for alternative monitoring parameters under § 63.8(f).

(1) You must include the information specified in paragraphs (c)(1)(i) through (vi) of this section in the site-specific monitoring plan.

(i) Location of the CMS sampling probe or other interface. You must include a justification demonstrating that the sampling probe or other interface is at a measurement location relative to each affected process unit such that the measurement is

representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and Table 4 to this subpart.

(v) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d)(1) and (2) and Table 5 to this subpart.

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), (e)(2)(i).

(2) You must include a schedule for conducting initial and subsequent performance evaluations in the site-specific monitoring plan.

(3) You must keep the site-specific monitoring plan on site for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If you revise the site-specific monitoring plan, you must keep

previous (i.e., superseded) versions of the plan on site to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. You must include the program of corrective action required under §63.8(d)(2) in the plan.

(d) For each bag leak detection system installed to comply with the requirements specified in § 63.625(e), you must include the information specified in paragraphs (d)(1) and (2) of this section in the site-specific monitoring plan specified in paragraph (c) of this section.

(1) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including how the alarm set-point will be established.

(2) A corrective action plan describing corrective actions to be taken and the timing of those actions when the bag leak detection alarm sounds. Corrective actions may include, but are not limited to, the actions specified in paragraphs (d)(2)(i) through (vi) of this section.

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in regulated material emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Shutting down the process controlled by the fabric filter.

§ 63.629 Miscellaneous requirements.

The Administrator retains the authority to approve site-specific test plans for uncontrolled granular triple superphosphate storage buildings developed pursuant to § 63.7(c)(2)(i).

§ 63.630 [Reserved]

§ 63.631 Exemption from new source performance standards.

Any affected source subject to the provisions of this subpart is exempted from any otherwise applicable new source performance standard contained in 40 CFR part 60, subpart V, subpart W, or subpart X. To be exempt, a source must have a current operating permit pursuant to title V of the Clean Air Act and the source must be in compliance with all requirements of this subpart. For each affected source, this exemption is effective upon the date that you demonstrate to the Administrator that the requirements of §§ 63.625 and 63.626 have been met.

§ 63.632 Implementation and enforcement.

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable state, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a state, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a state, local, or Tribal agency.

(b) The authorities specified in paragraphs (b)(1) through (5) of this section are retained by the Administrator of U.S. EPA and cannot be delegated to State, local, or Tribal agencies.

(1) Approval of alternatives to the requirements in §§ 63.620, 63.622, 63.625, 63.629, and 63.631.

(2) Approval of requests under §§ 63.7(e)(2)(ii) and 63.7 (f) for alternative requirements or major changes to the test methods specified in this subpart, as defined in § 63.90.

(3) Approval of requests under §63.8(f) for alternative requirements or major changes to the monitoring requirements specified in this subpart, as defined in §63.90.

(4) Waiver or approval of requests under § 63.10(f) for alternative requirements or major changes to the recordkeeping and reporting requirements specified in this subpart, as defined in § 63.90.

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

Table 1 to Subpart BB of Part 63—Existing Source Emission Limits[a,b]

For the following existing sources...	You must meet the emission limits for the specified pollutant...
	Total Fluorides
Phosphate Fertilizer Process Line (e.g., Diammonium and/or Monoammonium Phosphate Process Line)	0.060 lb/ton of equivalent P_2O_5 feed
Granular Triple Superphosphate Process Line	0.150 lb/ton of equivalent P_2O_5 feed
GTSP storage building	5.0×10^{-4} lb/hr/ton of equivalent P_2O_5 stored

[a] The existing source compliance date is June 10, 2002.
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.622(d).

Table 2 to Subpart BB of Part 63—New Source Emission Limits[a,b]

For the following new sources...	You must meet the emission limits for the specified pollutant...
	Total Fluorides
Phosphate Fertilizer Process Line (e.g., Diammonium and/or Monoammonium Phosphate Process Line)	0.0580 lb/ton of equivalent P_2O_5 feed
Granular Triple Superphosphate Process Line	0.1230 lb/ton of equivalent P_2O_5 feed
GTSP storage building	5.0×10^{-4} lb/hr/ton of equivalent P_2O_5 stored

[a] The new source compliance dates are based on date of construction or reconstruction as specified in § 63.622(a).
[b] During periods of startup and shutdown, for emission limits stated in terms of pounds of pollutant per ton of feed, you are subject to the work practice standards specified in § 63.622(d).

Table 3 to Subpart BB of Part 63—Monitoring Equipment Operating Parameters

You must...	If...	And you must monitor...	And...
Absorbers (Wet Scrubbers)			

You must...	If...	And you must monitor...	And...
Absorbers (Wet Scrubbers)			
Install a continuous parameter monitoring system (CPMS) for liquid flow at the inlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more; and you choose to monitor only the influent liquid flow, rather than the liquid-to-gas ratio.	Influent liquid flow.	--
Install CPMS for liquid and gas flow at the inlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or less; or Your absorber is designed and operated with pressure drops of 5 inches of water column or more, and you choose to monitor the liquid-to-gas ratio, rather than only the influent liquid flow, and you want the ability to lower liquid flow with changes in gas flow.	Liquid-to-gas ratio as determined by dividing the influent liquid flow rate by the inlet gas flow rate. The units of measure must be consistent with those used to calculate this ratio during the performance test.	You must measure the gas stream by: Measuring the gas stream flow at the absorber inlet; or Using the design blower capacity, with appropriate adjustments for pressure drop.
Install CPMS for pressure at the gas stream inlet and outlet of the absorber.	Your absorber is designed and operated with pressure drops of 5 inches of water column or more.	Pressure drop through the absorber.	You may measure the pressure of the inlet gas using amperage on the blower if a correlation between pressure and amperage is established.

Table 4 to Subpart BB of Part 63—Operating Parameters, Operating Limits and Data Monitoring, Recordkeeping and Compliance Frequencies

For the operating parameter applicable to you, as specified in Table 3...	You must establish the following operating limit during your performance test...	And you must monitor, record, and demonstrate continuous compliance using these minimum frequencies.		
		Data measurement	Data recording	Data averaging period for compliance
Absorbers (Wet Scrubbers)				
Influent liquid flow	Minimum inlet liquid flow	Continuous	Every 15 minutes	Daily
Influent liquid flow rate and gas stream flow rate	Minimum influent liquid-to-gas ratio	Continuous	Every 15 minutes	Daily
Pressure drop	Pressure drop range	Continuous	Every 15 minutes	Daily

Table 5 to Subpart BB of Part 63—Calibration and Quality Control Requirements for Continuous Parameter Monitoring Systems (CPMS)

If you monitor this parameter...	Your accuracy requirements are...	And your calibration requirements are...
Flow Rate	± 5 percent over the normal range of flow measured or 1.9 liters per minute (0.5 gallons per minute), whichever is greater, for liquid flow rate. ± 5 percent over the normal range of flow measured or 28 liters per minute (10 cubic feet per minute), whichever is greater, for gas flow rate. ± 5 percent over the normal range measured for mass flow rate.	Performance evaluation annually and following any period of more than 24 hours throughout which the flow rate exceeded the maximum rated flow rate of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspections and checks of CPMS operation every 3 months, unless the CPMS has a redundant flow sensor. Selection of a representative measurement location where swirling flow or abnormal velocity distributions due to upstream and downstream disturbances at the point of measurement are minimized.
Pressure	± 5 percent over the normal range measured	Checks for obstructions (e.g., pressure tap

If you monitor this parameter...	Your accuracy requirements are...	And your calibration requirements are...
	or 0.12 kilopascals (0.5 inches of water column), whichever is greater.	pluggage) at least once each process operating day. Performance evaluation annually and following any period of more than 24 hours throughout which the pressure exceeded the maximum rated pressure of the sensor, or the data recorder was off scale. Checks of all mechanical connections for leakage monthly. Visual inspection of all components for integrity, oxidation and galvanic corrosion every 3 months, unless the CPMS has a redundant pressure sensor. Selection of a representative measurement location that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

Appendix A to Subpart BB of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart BB

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.1(a)(1) through (4)	General Applicability	Yes.	None.
§ 63.1(a)(5)		No.	[Reserved].
§ 63.1(a)(6)	Contact information	Yes.	None.
§ 63.1(a)(7)through (9)		No.	[Reserved].

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.1(a)(10) through (12)	Time periods	Yes.	None.
§ 63.1(b)	Initial Applicability Determination	Yes.	None.
§ 63.1(c)(1)	Applicability After Standard Established	Yes.	None.
§ 63.1(c)(2)	Permits	Yes.	Some plants may be area sources.
§ 63.1(c)(3)through (4)		No.	[Reserved].
§ 63.1(c)(5)	Area to Major source change	Yes.	None.
§ 63.1(d)		No	[Reserved].
§ 63.1(e)	Applicability of Permit Program	Yes.	None.
§ 63.2	Definitions	Yes.	Additional definitions in § 63.621.
§ 63.3	Units and Abbreviations	Yes.	None.
§ 63.4(a)(1) and (2)	Prohibited Activities	Yes.	None.
§ 63.4(a)(3)through (5)		No.	[Reserved].
§ 63.4(b) and (c)	Circumvention/Fragmentation	Yes.	None.
§ 63.5(a)	Construction/Reconstruction Applicability	Yes.	None.
§ 63.5(b)(1)	Existing, New, Reconstructed Sources Requirements	Yes.	None.
§ 63.5(b)(2)		No.	[Reserved].

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.5(b)(3), (4), and (6)	Construction /Reconstruction approval and notification	Yes.	None.
§ 63.5(b)(5)		No	[Reserved]
§ 63.5(c)		No	[Reserved].
§ 63.5(d)	Application for Approval of Construction/ Reconstruction	Yes.	None.
§ 63.5(e)	Approval of Construction/Reconstruction	Yes.	None.
§ 63.5(f)	Approval of Construction/Reconstruction Based on State Review	Yes.	None.
§ 63.6(a)	Compliance with Standards and Maintenance Applicability	Yes.	None.
§ 63.6(b)(1) through (5)	New and Reconstructed Sources Dates	Yes.	See also § 63.622.
§ 63.6(b)(6)		No.	[Reserved].
§ 63.6(b)(7)	Area to major source change	Yes.	None.
§ 63.6(c)(1)and (2)	Existing Sources Dates	Yes.	§ 63.622 specifies dates.
§ 63.6(c)(3) and (4)		No.	[Reserved].
§ 63.6(c)(5)	Area to major source change	Yes.	None.
§ 63.6(d)		No.	[Reserved].
§ 63.6(e)(1)(i) and (ii)	Operation & Maintenance Requirements	No.	See § 63.628(b)for general duty requirement
§ 63.6(e)(iii)		Yes.	None.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.6(e)(2)		No.	[Reserved]
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan	No.	None.
§ 63.6(f)	Compliance with Emission Standards	No.	See general duty at § 63.628(b)
§ 63.6(g)	Alternative Standard	Yes.	None.
§ 63.6(h)	Compliance with Opacity/VE Standards	No.	Subpart BB does not include VE/opacity standards.
§ 63.6(i)(1) through (14)	Extension of Compliance	Yes.	None.
§ 63.6(i)(15)		No.	[Reserved].
§ 63.6(i)(16)		Yes.	None.
§ 63.6(j)	Exemption from Compliance	Yes.	None.
§ 63.7(a)	Performance Test Requirements Applicability	Yes.	None.
§ 63.7(b)	Notification	Yes.	None.
§ 63.7(c)	Quality Assurance/Test Plan	Yes.	None.
§ 63.7(d)	Testing Facilities	Yes.	None.
§ 63.7(e)(1)	Conduct of Tests; startup, shutdown and malfunction provisions	No.	§ 63.626 specifies additional requirements.
§ 63.7(e)(2) through (4)	Conduct of Tests	Yes.	§ 63.626 specifies additional requirements.
§ 63.7(f)	Alternative Test Method	Yes.	None.
§ 63.7(g)	Data Analysis	Yes.	None.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.7(h)	Waiver of Tests	Yes.	None.
§ 63.8(a)	Monitoring Requirements Applicability	Yes.	None.
§ 63.8(b)	Conduct of Monitoring	Yes.	None.
§ 63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No.	See § 63.628(b) for general duty requirement
§ 63.8(c)(1)(ii)		Yes.	None.
§ 63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No.	None.
§ 63.8(c)(2) through (4)	CMS Operation/Maintenance	Yes.	None.
§ 63.8(c)(5)	COMS Operation	No.	Subpart BB does not require COMS
§ 63.8(c)(6) through (8)	CMS requirements	Yes.	None.
§ 63.8(d)(1) and (2)	Quality Control	Yes.	None.
§ 63.8(d)(3)	Written procedure for CMS	No.	See § 63.628 for requirement
§ 63.8(e)	CMS Performance Evaluation	Yes.	None.
§ 63.8(f)(1) through (5)	Alternative Monitoring Method	Yes.	None.
§ 63.8(f)(6)	Alternative to RATA Test	No.	Subpart BB does not require CEMS.
§ 63.8(g)(1)	Data Reduction	Yes.	None.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.8(g)(2)		No.	Subpart BB does not require COMS or CEMS
§ 63.8(g)(3) through (5)		Yes.	None.
§ 63.9(a)	Notification Requirements Applicability	Yes.	None.
§ 63.9(b)	Initial Notifications	Yes.	None.
§ 63.9(c)	Request for Compliance Extension	Yes.	None.
§ 63.9(d)	New Source Notification for Special Compliance Requirements	Yes.	None.
§ 63.9(e)	Notification of Performance Test	Yes.	None.
§ 63.9(f)	Notification of VE/Opacity Test	No.	Subpart BB does not include VE/opacity standards.
§ 63.9(g)	Additional CMS Notifications	Yes.	None.
§ 63.9(h)(1) through (3)	Notification of Compliance Status	Yes.	None.
§ 63.9(h)(4)		No.	[Reserved].
§ 63.9(h)(5) and (6)		Yes.	None.
§ 63.9(i)	Adjustment of Deadlines	Yes.	None.
§ 63.9(j)	Change in Previous Information	Yes.	None.
§ 63.10(a)	Recordkeeping/Reporting-Applicability	Yes.	None.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes.	None.
§ 63.10(b)(2)(i)	Startup or shutdown duration	No.	None.
§ 63.10(b)(2)(ii)	Malfunction	No.	See § 63.627 for recordkeeping and reporting requirement
§ 63.10(b)(2)(iii)	Maintenance records	Yes.	None.
§ 63.10(b)(2)(iv) and (v)	Startup, shutdown, malfunction actions	No.	None.
§ 63.10(b)(2)(vi) through (xiv)	General Recordkeeping Requirements	Yes.	None.
§ 63.10(b)(3)	General Recordkeeping Requirements	Yes.	None.
§ 63.10(c)(1)	Additional CMS Recordkeeping	Yes.	None.
§ 63.10(c)(2) through (4)		No.	[Reserved].
§ 63.10(c)(5)		Yes.	None.
§ 63.10(c)(6)		Yes.	None.
§ 63.10(c)(7) and (8)		Yes.	None.
§ 63.10(c)(9)		No.	[Reserved].
§ 63.10(c)(10) through (13)		Yes.	None.
§ 63.10(c)(14)		Yes.	None.
§ 63.10(c)(15)	Startup Shutdown Malfunction Plan Provisions	No.	None.
§ 63.10(d)(1)	General Reporting Requirements	Yes.	None.

40 CFR citation	Requirement	Applies to subpart BB	Comment
§ 63.10(d)(2)	Performance Test Results	Yes.	None.
§ 63.10(d)(3)	Opacity or VE Observations	No.	Subpart BB does not include VE/opacity standards.
§ 63.10(d)(4)	Progress Reports	Yes.	None.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	No.	See § 63.627 for reporting of excess emissions
§ 63.10(e)(1) and (2)	Additional CMS Reports	Yes.	None.
§ 63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes.	None.
§ 63.10(e)(4)	COMS Data Reports	No.	Subpart BB does not require COMS.
§ 63.10(f)	Recordkeeping/Reporting Waiver	Yes.	None.
§ 63.11	Control Device and Work Practice Requirements	Yes.	None.
§ 63.12	State Authority and Delegations	Yes.	None.
§ 63.13	Addresses	Yes.	None.
§ 63.14	Incorporation by Reference	Yes.	None.
§ 63.15	Information Availability/Confidentiality	Yes.	None.
§ 63.16	Performance Track Provisions	No.	Terminated

[FR Doc. 2015-19732 Filed: 8/18/2015 08:45 am; Publication Date: 8/19/2015]