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Environmental Protection Agency

40 CFR Part 61

National Emissions Standards for Hazardous Air Pollutants; Polonium-210 Emissions From Elemental Phosphorus Plants; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 61

[FRL 4034-1]

National Emission Standards for Hazardous Air Pollutants; Polonium-210 Emissions From Elemental Phosphorus Plants

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This final rule announces the Administrator's decision modifying 40 CFR part 61, subpart K, the National Emission Standard for Hazardous Air Pollutants ("NESHAP") for Radionuclide Emissions from Elemental Phosphorus Plants (54 FR 51699 December 15, 1989. In this final rule, subpart K is amended to permit elemental phosphorus plants an alternative means of demonstrating compliance with the standard. Under the previous standard, an elemental phosphorus plant has to ensure that total emissions of polonium-210 from that facility did not exceed 2 curies per year. Under this amendment, an elemental phosphorus plant will be in compliance if it limits polonium-210 emissions to 2 curies per year. However, in the alternative, the plant may demonstrate compliance by: (1) Installing a Hydro-Sonic® Tandem Nozzle Fixed Throat Free-Jet Scrubber System [1] including four scrubber units, (2) operating all four scrubber units continuously with a minimum average over any 6-hour period of 40 inches (water column) of pressure drop across each scrubber during calcining of phosphate shale, (3) scrubbing emissions from all calciners and/or nodulizing kilns at the plant, and (4) limiting total emissions of polonium-210 from the plant to no more than 4.5 curies per year. EPA proposed this modified standard for elemental phosphorus plants as a result of settlement discussions between EPA and the FMC Corporation ("FMC") in *FMC Corporation* v. *U.S. Environmental Protection Agency*, Docket No. 90-1057 in the D.C. Circuit Court of Appeals, a judicial action by FMC challenging subpart K as it was originally promulgated.

DATES: This rule is effective December 13, 1991. The provisions in this rule will be applied immediately to all affected facilities including existing sources. Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this amended standard is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit within 60 days of publication of this rule. Under section 307(b)(2) of the CAA, the provisions which are the subject of today's notice will not be subject to judicial review in any civil or criminal proceedings brought by EPA to enforce these requirements.

FOR FURTHER INFORMATION CONTACT: Craig Conklin, Environmental Standards Branch, Criteria and Standards Division (ANR-460W), Office of Radiation Programs, Environmental Protection Agency, Washington DC 20406, (703) 308-8755.

SUPPLEMENTARY INFORMATION:

Petition for Reconsideration

No objection to this rule which was not raised with reasonable specificity during the public comment period may be raised as part of any judicial review of this rule. If a party contends that it was impracticable to raise an objection during the comment period and that such objection is of central relevance to the outcome of the rule, that party may submit a petition for reconsideration pursuant to Clean Air Act section 307(d)(7)(B).

Docket

The rulemaking record is contained in Docket No. A-91-51 and contains information on pilot scrubber test results, the settlement agreement between EPA and FMC, information considered in determining health effects, and other information used in revising the standard. It also contains all comments received from the public during the comment period. The docket is available for public inspection and copying between 8 a.m. and 3 p.m. on weekdays. A reasonable fee may be charged for copying.

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I. Definitions

A. Terms

Activity—The amount of a radioactive material. It is a measure of the transformation rate of radioactive nuclei at a given time. The customary unit of activity, the curie, is 3.7×10^{10} nuclear transformations per second.

Half-Life—The time in which half the atoms of a particular radioactive substance transform, or decay, to another nuclear form.

Incidence—This term denotes the predicated number of fatal cancers in a population from exposure to a pollutant Other health effects (non-fatal cancers, genetic, and developmental) are noted separately.

Maximum Individual Risk—The maximum additional cancer risk of a person due to exposure to an emitted pollutant for a 70-year lifetime.

Pathway—A way that radionuclides might contaminate the environment or reach people, e.g. air, water, food.

Radionuclide—A type of atom which spontaneously undergoes radioactive decay.

Source Term—the amount of radioactive material emitted to the atmosphere from a source, either estimated, measured or reported, that is used in the risk assessment.

B. Acronyms

CAA—The Clean Air Act, 42 U.S.C. 7401 *et seq.*

CAAA—The Clean Air Act Amendments of 1990

CFR—Code of Federal Regulations

EDF—Environmental Defense Fund

EPA—United States Environmental Protection Agency

FR—Federal Register

ICRP—International Commission on Radiological Protection

NAAQS—National Ambient Air Quality Standards

NESHAP—National Emission Standard for Hazardous Air Pollutants

NCRP—National Council on Radiation Protection and Measurements

NRDC—Natural Resources Defense Council, Inc.

OMB—Office of Management and Budget

RCRA—The Resource Conservation and Recovery Act

[1] The Hydro-Sonic® Tandem Nozzle Fixed Throat Free Jet Scrubber System was developed and patented by Lone Star Steel Company. It is marketed by Lone Star Steel Company and other companies, such as John Zink Company, under non exclusive licensing agreements with Lone Star Steel Company.

II. Background

A. Standard Setting Under Section 112

On October 31, 1989, EPA promulgated under section 112 of the Clean Air Act, 42 U.S.C. 7412, National Emission Standards for Hazardous Air Pollutants (NESHAPs) to control radionuclide emissions to the ambient air from a number of different source categories, 40 CFR part 61. This rule was published in the **Federal Register** on December 15, 1989 (54 FR 51654). The NESHAPs were promulgated pursuant to a voluntary remand granted by the U.S. Court of Appeals for the DC Circuit. The purpose of the remand was to enable EPA to implement the Court's earlier ruling in *NRDC, Inc.* v. *EPA*, 824 F.2d 1146 (DC Cir. 1987) ("the Vinyl Chloride decision"), which articulated specific legal requirements for promulgation of standards under section 112.

The Vinyl Chloride decision set forth a decision-making framework for promulgation of NESHAPs in which the Administrator makes a determination under section 112 in two steps: First, determine a "safe" or "acceptable" level of risk considering only health-related factors, and second, set a standard that provides an "ample margin of safety," in which costs, feasibility, and other relevant factors in addition to health may be considered.

After proposing and receiving comments on several options by which to define "safe", the Administrator selected an approach, first announced in the final NESHAPs for certain benzene source categories (54 FR 38044 September 14, 1989). Under this approach, the Administrator established a presumption of acceptability for a risk of approximately one in ten thousand to the maximally exposed individual, and a goal to protect the greatest number of persons possible to a lifetime risk level no higher than approximately one in one million. After evaluating existing emissions against this benchmark, other risk information is then considered and a final decision is made about what risk is acceptable. The Agency then considers other information, including economic costs and technical feasibility, along with all of the health-related factors previously used to determine the "safe" level, to set a standard which protects public health with an ample margin of safety.

B. The NESHAP for Elemental Phosphorus Plants

One of the source categories governed by 40 CFR part 61 is Elemental Phosphorus Plants. Subpart K of 40 CFR part 61 ("subpart K") established a 2 curies/year standard for emissions of polonium-210 from such facilities.

Polonium-210 and lead-210 are vaporous waste byproducts that result from the high temperature calcination of phosphate ore at elemental phosphorus plants. Because phosphate ore contains relatively high concentrations of uranium and radium, it also contains significant quantities of polonium-210 and lead-210. The high calcining temperature (1,300 °C volatilizes the lead-210 and polonium-210 from the phosphate rock, resulting in the release of much greater quantities of these radionuclides than of the uranium, thorium, and radium radionuclides. Analyses of doses and risks from these emissions show that polonium-210 and lead-210 are the major contributors, 94.7% and 4.3% respectively, to the risk from radionuclide emissions from elemental phosphorus plants.

During the rulemaking that resulted in promulgation of the current subpart K, EPA performed a plant-by-plant risk assessment of radionuclide emissions from all eight U.S. elemental phosphorus plants. In that analysis, EPA estimated that the lifetime fatal cancer risk to the maximally exposed individual was approximately 5.7×10^{-4}. Because a reduction in the polonium-210 emissions also results in an equivalent reduction in lead-210 emissions and because polonium-210 emissions account for approximately 95% of the risk from radionuclide emissions, EPA concluded that the total risk from radionuclide emissions could be reduced to the level required by the Agency's NESHAP policy without the need for establishing an emission limit for lead-210.

In applying the Vinyl Chloride decision methodology, EPA selected an acceptable level for emissions of polonium-210 of 2 curies/year, which corresponds to an estimating maximum lifetime risk for any individual of 1×10^{-4}. When it promulgated NESHAPs for radionuclide emissions from Department of Energy facilities, Nuclear Regulatory Commission licensees, underground uranium mines, and inactive uranium mill tailings piles, EPA noted the numerous uncertainties in establishing risk assessment parameters, modelling actual emissions, and estimating the numbers of people exposed and concluded that an estimated maximum risk as high as 3×10^{-4} could be regarded as essentially equivalent to an estimated maximum risk of 1×10^{-4} for purposes of selecting an "acceptable" emission level. In selecting an "acceptable" emission level for polonium-210 emissions from elemental phosphorus plants, EPA concluded that existing emissions were higher than the level which could be deemed acceptable, but EPA did not consider whether specific alternative emission levels between existing levels and 2 curies per year might be deemed acceptable. EPA did not consider the acceptability of emission levels higher than 2 curies/year because it appeared from the available information that a level of 2 curies/year or less could be readily achieved at all facilities by proper installation and operation of available control technology and there was no technology known to the Agency that could achieve some level between existing emissions and 2 curies/year. If the baseline levels were not acceptable, then EPA believed that the next logical choice for an option to be considered was one that was achievable with existing technology and which presented risks about a factor of three below the baseline. As EPA noted when it originally proposed subpart K, see 54 FR 9612, 9625, March 7, 1989, although risks associated with radionuclide emissions exist on a continuum, the Agency selects an acceptable level by considering specific discrete alternative emission levels. The fact that EPA must choose a specific emission level as acceptable does not necessarily mean that alternatives that were not specifically considered and that present risks slightly higher than the chosen level are inherently unacceptable.

After selecting an acceptable level of 2 curies/year, EPA then determined that significantly reducing emissions of polonium-210 below 2 curies/year would be very costly and would result in very small incremental risk reductions. For these reasons, EPA concluded that a standard of 2 curies/year would also protect public health with an ample margin of safety.

C. Objections to Subpart K by FMC Corporation

FMC Corporation operates an elemental phosphorus plant in Pocatello, Idaho, which is the single largest source affected by subpart K. Following promulgation of subpart K, FMC Corporation petitioned for judicial review of the standard pursuant to Clean Air Act section 307(b), *FMC Corporation* v. *U.S. Environmental Protection Agency*, Docket No. 90-1057, United States Court of Appeals for the DC Circuit. The Circuit Court subsequently consolidated the FMC petition with ten other petitions for review of various radionuclide NESHAPs. These consolidated cases are presently being held in abeyance pending further actions by EPA.

Following publication of the radionuclide NESHAPs on December 15, 1989, EPA received over 25 separate petitions requesting that EPA reconsider some or all of the individual standards incorporated in 40 CFR part 61 pursuant to Clean Air Act section 307(d)(7)(B). In one of these petitions, FMC requested that EPA reconsider the standard for Elemental Phosphorus Plants set forth in subpart K. In its petition, FMC argued that: (1) The Notice of Proposed Rulemaking did not provide adequate notice of the provisions in the final rule, or of the EPA methodology and its application; (2) EPA failed to properly consider intermediate emission levels and the associated acceptable risk levels; (3) EPA based the final rule upon material omitted from the administrative record; (4) new epidemiologic information calls into question EPA estimates of the health risk associated with radionuclide emissions from FMC's Pocatello, Idaho facility; and (5) the rule may not have been validly promulgated because Assistant Administrator William Rosenberg did not have the authority to sign the rule.

At the time FMC submitted its petition for reconsideration, EPA was not persuaded that any of the legal or substantive arguments advanced by FMC provided any basis for reconsideration of the rule. Although EPA acknowledged that it had not considered intermediate emission levels between the baseline emission levels and 2 curies/year in selecting an acceptable risk level, it was not clear why this alleged deficiency in the Agency's analytic process would have any effect on the final standard. EPA assumed at that time that all affected facilities, including the FMC plant in Pocatello, Idaho, could achieve compliance with the 2 curies/year standard by installation of a specific scrubber system manufactured by the John Zink Company, which had proven highly effective in reducing polonium-210 emissions at an elemental phosphorus plant operated by another company. Since EPA knew of no other technology that would achieve a level of emissions in between the baseline and 2 curies/year, EPA did not believe it was reasonable to consider an intermediate emission level as an option for the acceptable risk decision. Subsequently, on April 23, 1990, FMC submitted the results of pilot testing it had performed with the Hydro-Sonic® scrubber system. Based on the results of this pilot testing and on the size and operational characteristics of its Pocatello, Idaho facility, FMC argued that installation of this system at the Pocatello plant might not be sufficient to enable FMC to meet the 2 curies/year standard established by subpart K. These concerns regarding the capabilities of the available scrubber technology made FMC's prior argument that EPA should have considered intermediate emission levels in selecting an acceptable level seem more consequential.

After evaluating the results of the pilot testing of the Hydro-Sonic® scrubber system by FMC, EPA concluded that the pilot test results were equivocal. While it is quite probable that the 2 curies/year standard can be achieved by FMC at its Pocatello, Idaho facility following installation of the scrubber system, it is possible that the resultant reductions in emissions might not be sufficient to achieve this result. Given this uncertainty, the reluctance of FMC to make the large capital investments necessary to install and operate the scrubber system was understandable. After it became apparent to EPA that FMC would be willing to install the Hydro-Sonic® scrubber system at its Pocatello, Idaho facility if it could have reasonable assurance that it could thereby achieve compliance with subpart K, EPA decided to enter into settlement discussions with FMC.

D. Settlement Discussions Between EPA and FMC Corporation

Throughout the settlement discussions between FMC and EPA, the Agency had two principal policy objectives: (1) To have FMC install the Hydro-Sonic® scrubber system, and to achieve the resulting reductions in the risks to human health associated with exposure to polonium-210, as rapidly as possible; and (2) to resolve in a definitive manner all pending disputes between FMC and EPA concerning subpart K. It quickly became apparent that FMC would be willing to forego further litigation concerning subpart K if FMC could be assured that installation and operation of such a scrubber system would result in compliance with subpart K. At that point, the principal task for the negotiators was to establish a set of specifications for installation and operation of the scrubber system which would assure EPA that polonium-210 emissions were being reduced to a level sufficient to provide an ample margin of safety, while still affording FMC engineers an adequate range of operational flexibility.

EPA and FMC ultimately reached agreement on the detailed specifications for the scrubber system which were set forth in the Agency's proposed amendment of subpart K. If an elemental phosphorus plant installs and operates a Hydro-Sonic® scrubber system conforming to those criteria, it will be deemed to be in compliance with subpart K, even if it does not thereby achieve compliance with the underlying standard of 2 curies/year. The standard provides for some operational flexibility, but a plant must strictly adhere to the operating conditions unless it can otherwise reduce emissions to less than 2 curies/year. To ensure that the standard does not unnecessarily constrain affected facilities, alternative operating conditions which can be shown to achieve an overall removal efficiency for polonium-210 equal to or greater than the operating conditions specified by the standard can be used with the prior approval of the EPA Administrator.

Once a tentative settlement agreement was reached between EPA and FMC, EPA published a notice of settlement as required by the Section 113(g) of the 1990 Clean Air Act Amendments. (56 FR 32572, July 17, 1991). A status report and notice of the proposed settlement agreement was also filed and served on all parties in the pending Court of Appeals case, *FMC Corporation* v. *EPA*, Docket No. 90-1057 (DC Cir.), on July 19, 1991. The settlement agreement between EPA and FMC was approved by EPA on August 21, 1991.

Under the settlement agreement between FMC and EPA, and EPA granted FMC's pending petition for reconsideration for the purpose of proposing revisions to modify subpart K. Pursuant to the provisions of the settlement agreement, FMC and EPA filed a joint motion with the DC Circuit Court to sever FMC's petition for review from the remaining consolidated cases and to hold the FMC petition in abeyance pending conclusion of this rulemaking. The D.C. Circuit Court granted this joint motion on September 27, 1991.

If EPA adopts the proposed modification of subpart K set forth in the proposed rule as a final rule, or EPA adopts a final rule which contains provisions which are substantially similar to the proposed modifications, FMC has agreed that it will seek dismissal with prejudice of its pending petition for review of subpart K. In that event, FMC has further agreed that it will waive any right it would otherwise have to seek judicial review of the newly promulgated final rule.

III. Reconsideration of Standard

A. Analytic Methodology

In reconsidering the currently effective subpart K, EPA has utilized the analytic framework required by the Vinyl Chloride decision and has applied the policy concerning acceptable risk established by the Administrator's benzene decision. The Agency's decision to reconsider the emission standard in subpart K should not be construed as an indication that EPA is revisiting or reconsidering the benzene policy, the level of risk determined in that policy to be presumptively safe, or any of the health based regulations issued under that policy.

B. Decision on Acceptable Risk

As stated in the original rule promulgating subpart K, the maximum individual lifetime risk to any individual from baseline emissions is 5.8×10^{-4}. This is clearly higher than the presumptively safe level established by the Administrator's benzene decision. The estimated annual incidence from baseline emissions is 0.091 fatal cancers per year. There are an estimated 8100 people that are exposed to risk levels greater than 1×10^{-4}, and an estimated 424,000 people that are exposed to risk levels greater than 1×10^{-6}.

After examining these factors in the previous rulemaking, the Administrator determined that the risk level represented by the baseline was unacceptable. EPA then estimated that a reduction in polonium-210 emissions to 2 curies/year would reduce the incidence to 0.024, or 1 case every 40 years and expose no one to a risk level greater than 1×10^{-4}. EPA did not consider emission levels between the assumed baseline of 10 curies/year and 2 curies/year in selecting an acceptable or "safe" level. Upon reconsideration, the Agency has now performed risk estimates for five levels of emissions between 2 and 10 curies/years. These estimates are presented in Table 1, along with the risk estimates associated with a baseline emission of 10 curies/year and the current emission limit of 2 curies/year. Based upon these risk estimates a reduction in polonium-210 emissions to 4.5 curies per year would reduce the incidence to 0.048, or 1 case every 21 years and expose no one to a risk level greater than 2.6×10^{-4}. This approximately equals the level that is presumptively safe. Based upon these risk estimates and the uncertainties in establishing parameters for risk assessment and in modelling actual emissions and exposures referred to in the prior rulemaking, the Agency has concluded that the acceptable level of emissions of polonium-210 is a level that limits the maximum individual risk to any individual to 2.6×10^{-4}, represented by an emission level of 4.5 Ci/y P–210.

TABLE 1.—ACCEPTABLE LEVEL OF RISK DECISION

	Emissions (Ci/y)						
	2	3	4	4.5	5	6	10
Maximum individual risk (individual)	1×10^{-4}	1.8×10^{-4}	2.3×10^{-4}	2.6×10^{-4}	2.9×10^{-4}	3.5×10^{-4}	5.8×10^{-4}
Incidence within 80 km (deaths/y)	0.024	0.037	0.044	0.048	0.052	0.06	0.091
Risk individual:							
E-2 to E-1	0	0	0	0	0	0	0
E-3 to E-2	0	0	0	0	0	0	0
E-4 to E-3	0	384	700	709	1,950	2,160	8,100
E-5 to E-4	27,000	39,000	54,000	55,000	75,000	76,000	122,000
E-6 to E-5	390,000	380,000	370,000	368,000	347,000	346,000	294,000
less E-6	1.5M	1.4M	1.4M	1.4M	1.4M	1.4M	1.4M

Other Health Impacts: Non-fatal cancers number no more than 5 percent of deaths.

C. Decision on Ample Margin of Safety

In addition to considering the health-related factors discussed above, EPA has also examined the cost and technological feasibility of the various types of emission control technology available to lower polonium-210 emissions from elemental phosphorus plants, as well as the degree of certainty that the available technology will succeed in reducing polonium-210 emissions to 2 curies/year at all affected facilities, in selecting an emission level which will provide an ample margin of safety to protect public health.

EPA accepts the engineering judgment by FMC that a scrubber system installed and operated as specified in the proposed rule presently represents the most practicable technology capable of reducing the polonium-210 emissions at FMC's Pocatello, Idaho elemental phosphorus plant. EPA has also concluded that proper installation and operation of one of the available emission control technologies will be sufficient to reduce emissions to below 2 curies/year at all affected facilities other than the FMC Pocatello, Idaho plant, and that it is quite probable that an emission level below 2 curies/year can be achieved at the FMC Pocatello facility as well. However, even if FMC is unable to reduce polonium-210 emissions to 2 curies/year by installing and operating the specified scrubber system in the specified manner, EPA has concluded that adherence to the specified conditions will reduce polonium-210 emissions sufficiently to provide an ample margin of safety to protect public health, as required by section 112 of the Clean Air Act.

Based on this determination concerning ample margin of safety, EPA is amending the emission standard in subpart K to permit each affected facility to demonstrate compliance either by limiting total polonium-210 emissions to no more than 2 curies per year, or by: (1) Installing a Hydro-Sonic® Tandem Nozzle Fixed Throat Free-Jet Scrubber System including four scrubber units, (2) operating all four scrubber units continuously with a minimum average over any 6-hour period of 40 inches (water column) of pressure drop across each scrubber during calcining of phosphate shale, (3) scrubbing emissions from all calciners and/or nodulizing kilns at the plant, and (4) limiting total emissions of polonium-210 from the plant to no more than 4.5 curies per year. This choice of compliance mechanisms will be available to all affected facilities. However, EPA anticipates that facilities other than the FMC Pocatello, Idaho plant will likely enjoy greater operational flexibility simply by meeting the 2 curies/year limitation.

IV. Responses to Comments

On September 11, 1991, the EPA published in the **Federal Register** proposed revisions to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for polonium-210

emissions from elemental phosphorus plants. The **Federal Register** notice requested public comments on the revised NESHAP, the risk management approach used to develop the standard and the technological parameters specified in the standard. A public hearing was held in Pocatello, Idaho on September 17, 1991, to give interested parties an opportunity to present their views, and written comments were solicited. Comments were received from 20 private citizens, 3 government agencies, and one affected company. Nineteen of the private citizens stated that the standard should not be relaxed. The government agencies were concerned that FMC adequately demonstrate its arguments, that sufficient information is available to evaluate the proposed rule, and that the proposed rule is reasonable and environmentally sound. FMC was the only affected company to provide comments.

This section of the preamble discusses the legal, policy-related, and technical comments received during the comment period. Many of the commenters provided similar comments and, when possible, these comments have been combined. The following sections are split into discussions of legal/policy-related comments and technical comments. The main position and concerns presented by the commenters are followed by an EPA response to the comments in the context of the final rule.

A. Legal and Policy-Related Comments

Comment: One commenter stated that this special rulemaking was not conducted as a formal negotiated rulemaking because only EPA and FMC were involved.

Response: This rulemaking was never intended to be a formal negotiated rulemaking as defined by the Negotiated Rulemaking Act of 1990. Throughout the discussions between FMC and EPA, the Agency had two principal policy objectives: (1) To reduce the risks to human health associated with polonium-210 emissions; and (2) to resolve all pending disputes between FMC and EPA concerning subpart K. The Agency believed that installation of a Hydro-Sonic® Tandem Nozzle Fixed Throat Free-Jet Scrubber System, as pilot tested by FMC, would achieve the greatest reduction in public health risk. To settle the pending disputes, the Agency believed that a settlement agreement would provide the best assurance of resolving all issues in a timely and environmentally responsible manner. It was always the Agency's intention to conduct the actual rulemaking in accordance with standard public notice and comment procedures.

Comment: A few commenters stated that the publication of the proposed rule one week prior to the public hearing did not provide them enough time to become familiar with the recommended revisions. They felt that simply meeting the legal requirements for providing public notice is not sufficient for obtaining thoughtful public input because most ordinary citizens do not read the **Federal Register**. These commenters believe that advance notification in the local newspapers would have generated more public interest in the hearing and the proposed revisions to the rule.

Response: The complete proposed rule was published in the **Federal Register** on September 11, 1991 (56 FR 46252 September 11, 1991), six days before the September 17, 1991 public hearing in Pocatello, Idaho. However, the proposed substantive changes were also published previously on August 23, 1991 (56 FR 41811 August 23, 1991) in a separate notice of public hearing. Because a public hearing was held, the period for submission of written comments continued until October 17, 1991. EPA believes that all interested parties had sufficient time in which to review the proposed revisions to the rule and provide thoughtful input into this rulemaking.

Comment: One commenter stated that EPA did not coordinate this effort with State, Tribal, or EPA Idaho Operations personnel. This commenter also indicated that EPA's Indian Policy had been violated because the Agency did not take active steps to allow input from the Shoshone-Bannock Tribes of the Fort Hall Reservation.

Response: This comment is not accurate. Personnel from EPA Region 10 were included in the Agency's deliberations concerning settlement discussions and rulemaking activities. The Region 10 Radiation Program Manager provided the Air Quality Planning Section of the Shoshone-Bannock Tribes of the Fort Hall Reservation, on which the FMC facility is located, with a copy of the proposed settlement agreement and an advance copy of the proposed rule, thereby affording the Shoshone-Bannock additional time to review and comment on the document. In fact, a representative of the Air Quality Planning Section provided comments during the public hearing and written comments during the comment period that followed the public hearing.

EPA also notified environmental groups such as the Environmental Defense Fund (EDF) and Natural Resources Defense Council (NRDC) of the proposed rule. Neither the NRDC or EDF expressed any interest in this rulemaking and did not provide any comments. FMC's largest competitor in the elemental phosphorus industry, Monsanto Corporation, was also contacted but did not provide any comments. It is clear that the Agency expended considerable effort to encourage public participation in this rulemaking.

Comment: One commenter expressed concern because the NESHAP for radionuclide emissions from elemental phosphorus plants was exempted from the 1990 Clean Air Act Amendments. Unlike the standards to be promulgated to control other hazardous air pollutants, this standard will not be automatically reviewed and revised as necessary every 8 years. Therefore, the commenter felt that the population surrounding the Pocatello, Idaho, facility will not benefit from new emission control technology developments in the future when better control technology may be reasonably available.

Response: Section 112(q)(2) of the 1990 Clean Air Act Amendments (CAAA) states that no standard shall be established under section 112, as amended by the CAAA of 1990, for radionuclide emissions from elemental phosphorus plants, grate calcination elemental phosphorus plants, phosphogypsum stacks, or any subcategory of the foregoing. Accordingly, those provisions of the new Clean Air Act under which sources emitting hazardous air pollutants will be required to install the Maximum Available Control Technology, and EPA must review such requirements in light of changes in practices, processes, and control technologies every eight years, will not apply with respect to radionuclide emissions from elemental phosphorus plants. However, this does not mean that the pollution control technology at such plants will not be subject to periodic review.

Even though subpart K is not governed by the provision of the CAAA requiring periodic reassessment of NESHAPs, the standard remains subject to review under section 112 as it was in effect prior to the 1990 Clean Air Act Amendments. The costs and capabilities of available control technology may be considered in the second step of the Vinyl Chloride methodology, and are an element in implementation of the policy which the Administrator established in the benzene decision. Thus, the present standard could be revisited in the future if necessary to protect public health

with an ample margin of safety. Moreover, to the extent that the work practice and operational provisions of this rule are construed as promulgated under section 112(e)(1) of the previous Clean Air Act, section 112(e)(4) would require EPA to repromulgate such provisions as a quantitative emission standard whenever it becomes feasible to do so.

EPA presently intends to reevaluate subpart K within approximately 2–3 years, after FMC has obtained sufficient operating history with the new scrubbers. This review will involve, at a minimum, a re-assessment of the risks associated with actual polonium-210 emissions, scrubber removal efficiency, and scrubber availability during calciner operations.

In evaluating the effect of the 1990 Clean Air Act on elemental phosphorus plants emissions, it is also helpful to remember that this source category will likely be subject to regulation under the new section 112 to control the emissions of other hazardous air pollutants. If there are substantial improvements in the future in the technology which is available to control such other air pollutants, installation of this technology on elemental phosphorus plants may also yield further reductions in radionuclide emissions.

Comment: One commenter stated that the Agency's analysis of the risks associated with radionuclide emissions from elemental phosphorous plants does not address the cumulative health effects associated with exposure to more than one source of radiation. In particular, the commenter was concerned with the additional risk associated with exposure to phosphogypsum stacks and elemental phosphorus slag.

Response: The Agency agrees that this is a legitimate concern. However, explicitly accounting for overlapping and multiple sources of exposure greatly complicates the calculation of exposures and risks. Since concentrations of radionuclides decline rapidly with distance from the source, it is highly unlikely that any individual could be the most exposed individual for more than one source. In most cases, members of the public who receive the highest dose from one source will receive an increase in risk of less than 1×10^{-6} from other sources.

B. Technical Comments

Comment: Several commenters stated that there is no justification for raising the emission limit for elemental phosphorous plants from 2 curies/year to 4.5 curies/year.

Response: Comments that EPA is raising the emission limit to 4.5 curies/year do not accurately characterize the Agency's action. An elemental phosphorus plant that is emitting more than 2 curies/year but less than 4.5 curies/year will not be in compliance with the new standard unless the facility has installed the specified scrubber technology and is consistently operating the scrubber in conformity with a set of very specific criteria. At most affected facilities, this alternative standard would actually result in emissions lower than 2 curies/year. Even at the FMC facility, EPA expects that the required technology will likely be sufficient to approach if not meet the 2 curies/year standard. The alternative standard reflects the Agency's conclusion that 4.5 curies/year is acceptable, but that sources must do very specific things to reduce exposures further in order to provide an ample margin of safety.

Comment: Several commenters expressed concern that while FMC is a large corporation with several billion dollars in annual income, it will not have to spend any money on pollution control equipment as a result of revised polonium-210 emission limit. This would provide FMC an economic advantage over its competitors that have already installed pollution control equipment and meet the existing standard.

Response: The Agency agrees that, if modification of this standard allowed FMC to forego installation of emissions control technology, FMC would have received an unfair economic advantage over its competitors who have already installed the control technology and met the standard. However, this is not the case. Installation of the Hydro-Sonic* Tandem Nozzle Fixed Throat Free-Jet Scrubber System is explicitly required by the alternative standard. Moreover, FMC is required by its existing compliance agreement with Region 10 to complete installation of the required technology by December 15, 1991. Expenditures by FMC on installation of the scrubber are expected to exceed $16,000,000.

EPA does not believe that modification of the standard provides FMC with any economic advantage over its competitors. If revision of the NESHAP for elemental phosphorus plants conferred an unfair advantage on FMC, EPA would expect that other companies who operate such plants would have objected. However, none of FMC's competitors objected to modification of the standard. Indeed, EPA expects facilities other than the FMC plant in Pocatello, Idaho will enjoy greater operational flexibility because they will be able to comply with the standard without demonstrating they are meeting the stringent operating conditions required by the alternative standard.

Comment: Several commenters discussed the fact that Pocatello is a non-attainment area for PM-10 (fine particulate) emissions and that a doubling of the polonium-210 emission limit would also result in a doubling of the visible emissions from the facility. The commenters stated that the visibility of the mountains in the distance is already obscured by dark gray or brown clouds that are caused by emissions from FMC's facility.

Response: As explained above, EPA is not doubling the limit for polonium-210 emissions. EPA expects that when FMC operates the Hydro-Sonic* scrubber system in accordance with the requirements specified in the rule, the resultant emissions will approach or meet the original limit of 2 Ci/y. EPA also expects that installation and operation of the required scrubber technology will yield substantial new reductions in particulate emissions. Moreover, this rule does not provide FMC any relief from its legal obligation to meet all other applicable standards for airborne emissions.

Comment: One commenter suggested that EPA approve the proposed revisions to the rule. This commenter stated that EPA's enforcement dollars would be better spent on other environmental issues associated with FMC's operations in Pocatello.

Response: The Science Advisory Board (SAB), in its report "Reducing Risk: Setting Priorities and Strategies For Environmental Protection" made several recommendations to the Administrator of the EPA on ways to improve the Agency's ability to address environmental protection issues. Among these was the recommendation that the EPA target its environmental protection efforts on the basis of opportunities for greatest risk reduction. This recommendation is being is aggressively instituted throughout the Agency. EPA believes that all the environmental issues associated with the FMC facility in Pocatello, Idaho, deserve Agency attention regardless of whether it is the use of elemental phosphorus slag in construction, the contamination of water, or the release of hazardous air pollutants into the atmosphere. However, the EPA also believes that, if necessary, priorities should be set in a manner consistent with the SAB's recommendation.

Comment: Many commenters addressed the fact that Monsanto

Corporation, which is FMC's largest competitor in the elemental phosphorus industry, has already installed similar pollution control equipment at one of its facilities and is meeting the existing standard. They believe that this provides adequate proof that the system can be operated in a manner which meets the existing standard.

Response: The Agency's knowledge of the successful operation of the Hydro-Sonic® scrubber system at the Monsanto facility helped it formulate the scrubber system requirements and operating parameters specified in the rule. However, it is important to remember that the total quantity of polonium-210 emitted is a function not only of the efficiency of emission reduction technology, but also of the total volume of phosphate shale which is calcined. The FMC facility is the largest elemental phosphorus plant presently operating in the U.S. Moreover, the removal efficiency of a scrubber system may vary depending on factors such as particle size, particle velocity, total surface area of the water droplets, etc. Because the particulate emissions from FMC's calciners have a smaller size distribution than those at Monsanto and the polonium-210 tends to be attached to the smaller particles, the scrubber system many not be as efficient in reducing polonium-210 emissions. EPA's analysis of the FMC pilot test results indicates uncertainty regarding whether the system will be as effective as it is at the Monsanto plant.

Comment: One commenter stated that they were not prejudiced against or for the proposed revisions. Their main concerns were: (1) That FMC adequately demonstrate their arguments, (2) that sufficient information is available to evaluate the proposal, and (3) that the proposal is reasonable and environmentally sound.

Response: The Agency believes that it has responded in a careful and responsible manner to FMC's concerns regarding its technical capability to meet the original standard. The information provided by FMC and the EPA Region 10 offices, the analysis of pilot test results analysis performed by the Industrial Studies Branch of the Office of Air Quality Planning and Standards, and the risk assessments performed by the Office of Radiation Programs provide a sound technical basis for a revised standard. If EPA had not been responsive to FMC's concerns regarding its ability to meet the standard, installation of the Hydro-Sonic® system at the FMC facility and the resultant reduction in polonium-210 emissions might have been delayed during the pendency of litigation, perhaps for years.

Comment: Many commenters expressed concern about FMC's intent and ability to operate the scrubbers as contemplated by the revised standard. Several individuals stated their belief that FMC does not operate the existing scrubbers at night. One commenter stated his belief that emissions during breakdown of the scrubber system are not included in the rule, and that uncontrolled emissions during such malfunctions would result in actual emissions greater than 4.5 curies/year. Another commenter expressed concerns about FMC's interruptable power supply and the availability of power for the emission control system during such interruptions.

Response: The Agency is also concerned about how FMC operates the scrubber system once it has been installed. To address these concerns, EPA explicitly included language in the rule that requires: (1) All four scrubber units be operated continuously during the calcining of phosphate shale; (2) the scrubber pressure drop over any 6-hour period must average at least 40 inches (water column); and (3) that emissions from all calciners and/or nodulizing kilns at the plant be scrubbed. This language prohibits FMC from either operating the calciners when the scrubbers are not operational for whatever reason or bypassing the scrubbers. Further, it means that any malfunction of the scrubber system which results in reduced pressure drop must be included in the 6-hour average. In order to meet the standard, EPA expects that FMC will normally operate the scrubbers at a pressure drop significantly exceeding 40 inches, in order to accommodate brief periods when the pressure drop falls below 40 inches, and will shut down the calciners if adequate pressure drop cannot be promptly restored. In addition, FMC has advised EPA that operation of the calciners when the scrubbers are shut down would damage the scrubbers and is therefore not feasible in any case.

Comment: Several commenters questioned the choice of 40 inches as the required average pressure drop for the system. One commenter stated he could not determine whether an average pressure drop of 40 inches represents the best available technology or is merely a negotiated specification. One commenter asserted that the Hydro-Sonic® scrubber system can handle a pressure drop of "close to 58 inches." Another suggested that EPA require an average pressure drop of 60 inches.

Response: As noted above, in order to consistently meet the required 40 inches average pressure drop, FMC will have to operate the system regularly at a pressure drop significantly exceeding 40 inches. The standard does not permit exclusion from the calculation of average pressure drop of periods when the calciners are operating but the scrubbers are malfunctioning or operating at lower efficiency. EPA considers this approach superior to a system which would allow affected facilities to exclude periods of breakdown or malfunction from the calculation, because it avoids disagreements concerning the legitimacy or frequency of reported breakdowns. If EPA were to retain the present approach to calculation of the average and also specify a higher average pressure drop, it would be necessary to verify that the system could be practically operated on a regular basis at pressure drops significantly exceeding that average. Based on the information provided by FMC, EPA has concluded that continuous maintenance of a pressure drop sufficient to achieve an average substantially greater than 40 inches would adversely affect the reliability of the system, as well as greatly increasing energy costs associated with its operation.

Comment: A few commenters expressed concern about the frequency of stack testing, the nature of the records that must be maintained by the plant, the distribution of the annual report, the persons responsible for monitoring facility compliance, and whether or not the public will have access to the annual reports.

Response: Elemental phosphorus plants are required to conduct emissions tests on an annual basis and report the results within 60 days of conducting the test. An emission test shall be performed on each calciner and/or nodulizing kiln and if the emissions are discharged through more than one stack, then each stack must be tested. Each test consists of three runs and the average of the runs is used to calculate the emissions. The phosphate rock processing rate is also determined for each run and averaged. The written test report must include the name and location of the facility; the name of the person responsible for operation of the facility and the name of the person responsible for the report (if different); a description of the effluent control system on each release point and an estimate of its efficiency; the results of the testing, including the results of each sampling run completed; the values used in calculating the emissions and the

source of these data; and a certification by a corporate officer of the accuracy and completeness of the test report. FMC will submit its annual test report to EPA's regional office in Seattle, Washington. A copy of this report is also sent to EPA Headquarters in Washington, DC. The regional offices are responsible for inspecting these facilities to determine compliance with the regulations. All annual reports and the results of all compliance monitoring activities are available for public inspection.

Comment: Several commenters recommended that the standard specify the scrubber fluid flow rate because of its importance in determining scrubber removal efficiency. They also recommended that this parameter be continuously monitored and recorded so that system performance could be better evaluated.

Response: The Agency agrees that an adequate flow rate of water into the nozzles is important in maintaining the particulate removal efficiency of the scrubber system. The Agency does not believe that is necessary at this time to specify a particular flow rate or range of flow rates. However, EPA does believe that the performance of the scrubber system can be monitored and evaluated better by FMC and EPA if the flow rate is continuously monitored and recorded by system instrumentation. Accordingly, EPA has decided to incorporate this additional monitoring requirement in the final rule. When compliance monitoring activities are conducted at the FMC facility in Pocatello, Idaho, fluid flow rates will be considered as part of the inspection process. If such inspections suggest that the effectiveness of the scrubbers has been compromised by failure to maintain an adequate flow rate, EPA will direct FMC to correct the problem.

Comment: A few commenters questioned how the radioactivity in the scrubber fluid will be removed and how the sediment in the scrubber fluid pond will be disposed of. They believe that the radionuclide content of the scrubber fluid should be limited in order to maintain a high level of removal efficiency and that disposal of the sediment should be regulated under the NESHAP since the Resource and Conservation Recovery Act (RCRA) does not address radioactivity.

Responses: The Agency agrees that the total dissolved and suspended solids, including radioactive material, in the scrubber fluid must be minimized in order to maintain a high level of efficiency. Because the level of dissolved and suspended solids in the fluid in approximately 2% of the scrubber fluid, the level of radioactive material in the scrubber fluid will also be kept at low enough levels so that the scrubber removal efficiency will not be impacted. The disposal of scrubber fluid pond sediment is of special interest to the Agency because of the naturally occurring radioactive material, polonium-210 and lead-210, which may settle in the pond sediment. Until it can be determined what level of radioactivity can be expected to be found in the pond sediment, the Agency will be closely monitoring this situation.

Comment: One commenter was concerned that the revised standard would allow the Monsanto facility to increase its emissions from less than 2 Ci/y to 4.5 Ci/y. The commenter questioned whether EPA would take action against the Monsanto facility in such circumstances.

Response: Operating experience at the Monsanto facility indicates that operation of the scrubber system at that facility in the manner required by the alternative standard would result in emissions below 2 Ci/y. Moreover, Monsanto originally installed the scrubber system at its facility in order to meet National Ambient Air Quality Standards governing the release of fine particulate material (PM-10 emissions). If Monsanto were to operate its scrubber system in a manner which neither achieved the 2 Ci/y standard nor conformed to the operating criteria specified in the alternative standard, EPA would respond to such a violation in the same manner as a comparable violation at any other facility.

V. Final Rule to Amend Subpart K

A. Description of Final Rule

In accordance with the above discussion, EPA is amending § 61.122 of 40 CFR part 61, subpart K, to permit elemental phosphorus plants an alternative means of demonstrating compliance. As under the present standard, compliance may be demonstrated by limiting total polonium-210 emissions to no more than 2 curies/year. In the alternative, compliance may be conclusively shown by: (1) Installing a Hydro-Sonic® Tandem Nozzle Fixed Throat Free-Jet Scrubber System including four scrubber units, (2) operating all four scrubber units continuously with a minimum average over any 6-hour period of 40 inches (water column) of pressure drop across each scrubber during calcining of phosphate shale, (3) scrubbing emission from all calciners and/or nodulizing kilns at the plant, and (4) ensuring total emissions of polonium-210 from the plant do not exceed 4.5 curies per year. Alternative operating conditions, which can be shown to achieve an overall removal efficiency for emissions of polonium-210 which is equal to or greater than the efficiency which would be achieved under the operating conditions described in (1), (2), and (3) above (and that ensure that total emissions of polonium-210 from the plant do not exceed 4.5 curies per year), may be used with prior approval of the Administrator. Facilities wishing to utilize alternative operating conditions will have to apply for such approval in writing, and the Administrator will act upon such requests within 30 days after receipt of a complete and technically sufficient application. To ensure that the operating conditions specified by the revised standard can be enforced and verified and to enhance the enforceability of the numerical limits in the standard, EPA is also amending § 61.126 to require the continuous measurement of system pressure drop and fluid flow rate when scrubbers are used, and primary and secondary current and voltage in each electric field when an electrostatic precipitator is used.

Although the alternative mechanism for demonstrating compliance with the standard which is incorporated in the final rule is legally available to all elemental phosphorus plants, EPA has concluded that all of the affected facilities except for the FMC plant in Pocatello, Idaho will achieve greater operational flexibility by electing to meet the underlying 2 curies/year limitation. Since the only practical effect of this proposal will be on FMC's Pocatello facility and FMC is already installing the Hydro-Sonic® system at that facility, EPA does not believe that the final rule will provide an inappropriate competitive advantage to the Hydro-Sonic® system. If a large new elemental phosphorus plant were to be constructed in the future or an existing plant were to be modified or expanded so as to raise this issue, EPA would then be prepared to consider any alternative emission control technology that could be shown to offer equivalent or improved performance.

B. Legal Authority

At the outset, it should be noted that section 112(q)(2) of the 1990 Clean Air Act Amendments provides that section 112, as in effect prior to the 1990 Amendments, continues to govern the promulgation of any NESHAP for elemental phosphorus plants. The procedures to be utilized to modify or revise a NESHAP under the old section 112 are the same as the procedures used

to promulgate the NESHAP in the first place. (Clean Air Act Sections cited in the balance of this discussion are the sections in effect prior to enactment of the 1990 Amendments.)

The revised standard set forth in the final rule affords facilities governed by the standard a choice between: (1) A simple quantitative emission limitation of 2 curies/year of polonium-210, and (2) an alternative quantitative emission limitation of 4.5 curies/year of polonium-210 which is supplemented by detailed and mandatory operation and maintenance requirements intended to provide additional emission reductions. On its face, section 112 appears to establish a dichotomy between "emission standards" promulgated under section 112(b) and "design, equipment, work practice, and operational standards" promulgated under section 112(e). Since any standard promulgated under section 112(e) is "treated as an emission standard" under section 112(e)(5), it appears that this dichotomy may have little ultimate practical significance. Nonetheless, the Agency believes it is necessary to consider which section(s) provide the legal authority to promulgate the final standard.

In those instances where a standard consists exclusively of a quantitative emission limitation, the authority to promulgate the standard is clearly provided by section 112(b). Conversely, when a standard consists exclusively of design, equipment, work practice, and/or operational requirements, such a standard must be promulgated under the authority provided by section 112(e). In the case where a standard is partially quantitative, but is supplemented by operational or work practice requirements, as in this instance, EPA believes that the better interpretation of section 112 is to construe such a "hybrid" standard as an emission standard governed by section 112(b). Nothing in section 112 compels a different conclusion. Moreover, section 302(k) expressly defines an emission standard as "including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction." Finally, since the analytic framework established by the Vinyl Chloride decision authorizes EPA to determine what constitutes an "ample margin of safety" in part on the basis of technological feasibility, it would not be logical for EPA to be precluded from writing an emission standard which reflects the hybrid character of the standard setting process.

In the alternative, the final standard here can be viewed as an emission standard supplemented by a work practice standard promulgated under section 112(e). The Administrator may promulgate a work practice standard under section 112(e) to the extent he determines that "it is not feasible to prescribe or enforce an emission standard."

Section 112(e)(2) defines the phrase "not feasible to prescribe or enforce an emission standard" to include any situation where "the application of measurement methodology to a particular class of sources is not practicable due to technological or economic limitations." EPA believes that this definition clearly encompasses the factual circumstances here. Of course, the measurement methodology is presently adequate to enable EPA to "enforce" a quantitative emission limit. However, given the uncertainties for the FMC facility regarding the quantitative emission reductions which can be achieved with the available technology, as described above, EPA has determined that it is not practicable to apply measurement methodology to "prescribe" a quantitative emission limit based on the available technology.

To the extent that the work practice and operational provisions of the final standard are construed as promulgated under the authority of section 112(e)(1), section 112(e)(4) requires EPA to repromulgate these provisions as an emission standard whenever it becomes feasible to do so. After FMC has installed the scrubber technology specified by the final rule, and has operated that technology in a variety of circumstances over a period of a few (1-3) years, EPA expects that it will be practicable to prescribe a quantitative emission limit based on the capabilities of the technology.

C. Effective Date

The revisions to the NESHAP for radionuclide emissions from elemental phosphorus plants adopted by this rule are effective immediately upon promulgation. Under section 112(c)(1)(B)(i) of the Clean Air Act, emissions from existing sources which would violate a newly promulgated or revised NESHAP are not prohibited until 90 days after the effective date of the standard. However, in this instance, EPA has decided that it will apply the provisions of the new standard immediately to all facilities including existing sources.

EPA believes that the evident purpose of the 90 day delay for compliance by existing sources embodied in section 112(c)(1)(B)(i) is to afford such sources time to prepare for the imposition of new requirements. Indeed, section 112(c)(1)(B)(i) is phrased as an exception to a general prohibition on emissions violative of a NESHAP. Therefore, EPA doubts that it was intended to apply to those revisions of a standard which relax existing requirements rather than creating new requirements. Although the Administrative Procedure Act (APA) does not formally apply in this instance, an analogous provision in the APA provides support for this interpretation. The general requirement that a substantive rule must be published or served 30 days before its effective date, which is also intended to afford affected parties time to prepare for imposition of the rule, does not apply to "a substantive rule which grants or recognizes an exception or relieves a restriction." 5 U.S.C. 553(d)(1).

In this case, any facility which would be in compliance with the prior standard for radionuclide emissions from elemental phosphorous plants would also be in compliance with the revised standard. The revisions simply offer facilities who elect to rely on them an alternate means of demonstrating compliance. Since the revisions impose no new binding requirements and serve only to create additional flexibility, there is no reason to interpret section 112 as requiring a delay in their applicability. Therefore, EPA will apply the revisions of subpart K incorporated in this rule immediately to all facilities including existing sources.

VI. Miscellaneous

EPA has determined that this action does not constitute a major rule within the meaning of Executive Order 12291 since it is not likely to result in (1) a nationwide annual effect on the economy of $100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State or local government agencies, or geographic regions; or (3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. Accordingly, a Regulatory Impact Analysis is not being prepared for this action.

Section 603 of the Regulatory Flexibility Act, 5 U.S.C. 603, requires EPA to prepare and make available for comment an "initial regulatory flexibility analysis" in connection with any rulemaking for which there is a statutory requirement that a general notice of proposed rulemaking be published. The "initial regulatory flexibility analysis" describes the effect

of the proposed rule on small business entities. However, section 604(b) of the Regulatory Flexibility Act provides that section 603 "shall not apply to any proposed * * * rule if the head of the Agency certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."

EPA believes that the proposed changes, as promulgated, would tend to ease the regulatory burdens associated with provisions of the existing final rule. Therefore, this rule will have no adverse effect on small businesses. For the preceding reasons, I certify that this rule will not have significant economic impact on a substantial number of small entities. This action was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291. Any written comments from OMB to EPA and any EPA written response to those comments are available for public inspection at Docket A-91-51.

List of Subjects for 40 CFR Part 61

Air pollution control, Radionuclides, Reporting and recordkeeping requirements.

Dated: December 13, 1991.

William K. Reilly,

Administrator.

PART 61—[AMENDED]

Part 61 of chapter I of title 40 of the Code of Federal Regulations is amended as follows:

1. The authority citation for part 61 continues to read as follows:

Authority: Secs. 101, 112, 114, 116, 301, Clean Air Act as amended (42 U.S.C. 7401, 7412, 7414, 7416, 7601).

Subpart K—National Emission Standards for Radionuclide Emissions From Elemental Phosphorus Plants

2. Subpart K is amended by revising § 61.122 to read as follows:

§ 61.122 Emission standard.

Emissions of polonium-210 to the ambient air from all calciners and nodulizing kilns at an elemental phosphorus plant shall not exceed a total of 2 curies a year; except that compliance with this standard may be conclusively shown if the elemental phosphorus plant:

(a) Installs a Hydro-Sonic® Tandem Nozzle Fixed Throat Free-Jet Scrubber System including four scrubber units.

(b) All four scrubber units are operated continuously with a minimum average over any 6-hour period of 40 inches (water column) of pressure drop across each scrubber during calcining of phosphate shale.

(c) The system is used to scrub emissions from all calciners and/or nodulizing kilns at the plant, and

(d) Total emissions of polonium-210 from the plant do not exceed 4.5 curies per year.

Alternative operating conditions, which can be shown to achieve an overall removal efficiency for emissions of polonium-210 which is equal to or greater than the efficiency which would be achieved under the operating conditions described in paragraphs (a), (b), and (c) of this section, may be used with prior approval of the Administrator. A facility shall apply for such approval in writing, and the Administrator shall act upon the request within 30 days after receipt of a complete and technically sufficient application.

3. Subpart K is amended by revising § 61.126 to read as follows:

§ 61.126 Monitoring of operations.

(a) The owner or operator of any source subject to this subpart using a wet-scrubbing emission control device shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement and recording of the pressure drop of the gas stream across each scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascal (±1 inch of water). The owner or operator of any source subject to this subpart using a wet-scrubbing emission control device shall also install, calibrate, maintain, and operate a monitoring device for the continuous measurement and recording of the scrubber fluid flow rate. These continuous measurement recordings shall be maintained at the source and made available for inspection by the Administrator, or his authorized representative, for a minimum of 5 years.

(b) The owner or operator of any source subject to this subpart using an electrostatic precipitator control device shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement and recording of the primary and secondary current and the voltage in each electric field. These continuous measurement recordings shall be maintained at the source and made available for inspection by the Administrator, or his authorized representative, for a minimum of 5 years.

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