ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 61

[FRL-5290-8]

RIN 2060-AE38

National Emission Standards for Radionuclide Emissions From Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities not Covered by Subpart H

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is rescinding subpart I of 40 CFR part 61 as it applies to nuclear power reactors, pursuant to section 112(d)(9) of the Clean Air Act Amendments of 1990. This section allows EPA to decline to regulate Nuclear Regulatory Commission (NRC) licensees if the Administrator determines by rule, and in consultation with the NRC, that the regulatory program established by the NRC pursuant to the Atomic Energy Act provides an ample margin of safety to protect the public health.

A proposed rule to rescind subpart I as it applies to nuclear power reactors was published on August 5, 1991. Based upon the record compiled in the subsequent rulemaking, EPA has concluded that the NRC regulatory program controlling air emissions of radionuclides from nuclear power reactors will assure that the resultant doses will consistently and predictably be below the levels which EPA has determined are necessary to provide an ample margin of safety to protect the public health.

EFFECTIVE DATE: This final rule is effective on September 5, 1995. Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this final rule 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 the publication of this rule.

FOR FURTHER INFORMATION CONTACT: Fran Jonesi, Risk Assessment and Air Standards Branch, Criteria and Standards Division (6602J), Office of Radiation and Indoor Air, Environmental Protection Agency, Washington, DC 20460, (202) 233-9300.

SUPPLEMENTARY INFORMATION:

Docket

The rulemaking record is contained in Docket No. A-94-61 (cross-referenced with A-79-11) and contains all information considered by EPA in determining the doses associated with radionuclide emissions from NRC-licensed nuclear power reactors. It also contains all comments received from the public during the comment period, and a document describing the Agency's responses to the comments received. This docket is available for public inspection and copying between 8 a.m. and 5 p.m. on weekdays. A fee may be charged for copying.

A single copy of a Background Information Document (BID) (EPA/520/1-89-006-1,2,5,7) containing information on airborne radionuclide emissions to the environment from nuclear power reactors has been included in the docket. Copies of the BID may also be obtained by writing to: Director, Criteria and Standards Division (6602J), Office of Radiation and Indoor Air, Environmental Protection Agency, Washington, DC 20460.

A. Background

1. Regulatory History

On October 31, 1989, EPA promulgated National Emission Standards for Hazardous Air Pollutants (NESHAPS) under Section 112 of the Clean Air Act to control radionuclide emissions to the ambient air from a number of different source categories. 54 FR 51654 (December 15, 1989). Subpart I of 40 CFR part 61 covers two groups of facilities: (1) Facilities licensed and regulated by the Nuclear Regulatory Commission (NRC) and its individual Agreement States, and (2) federal facilities which are not licensed by the NRC and are not owned or operated by the Department of Energy. The first group is quite diverse, and includes facilities which have received a license to use or possess nuclear materials such as hospitals, medical research facilities, radiopharmaceutical manufacturers, laboratories and industrial facilities, as well as facilities involved in the uranium fuel cycle (the conversion of uranium ore to electric power) such as uranium mills (other than radon releases), fuel fabrication plants, and nuclear power reactors. It is a subset of the uranium fuel cycle facilities, nuclear power reactors, which is the subject of today's action. The second group consists of federal facilities such as naval nuclear facilities which are not licensed by the NRC and are not affected in any way by the proposals to rescind subpart I with respect to NRC licensees.

Subpart I limits radionuclide emissions to the ambient air to amounts which would not cause any member of the public to receive in any year an effective dose equivalent (ede) greater than 10 millirem, of which no more than 3 millirem ede may be caused by radioiodines.

When subpart I was originally promulgated in December 1989, EPA simultaneously granted reconsideration of subpart I based on information received late in the rulemaking on the subject of duplicative regulation by NRC and EPA of NRC-licensed facilities and on the potential negative effects of the standard on nuclear medicine. EPA established a comment period to receive further information on these subjects, and granted a 90-day stay of subpart I as permitted by Clean Air Act section 307(d)(7)(B), 42 U.S.C. 7607(d)(7)(B). That stay expired on March 15, 1990. EPA subsequently extended the stay of the effective date of subpart I on several occasions pursuant to the authority provided by section 10(d) of the Administrative Procedure Act, 5 U.S.C. 705, and section 301(a) of the Clean Air Act, 42 U.S.C. 7601(a). (See 55 FR 10455, March 21, 1990; 55 FR 29205, July 18, 1990; and 55 FR 38057, September 17, 1990). On July 26, 1991, EPA issued a final rule staying the effectiveness of subpart I of 40 CFR part 61 for NRC-licensed commercial nuclear power reactors pending completion of today's rulemaking. See 56 FR 37158 (September 26, 1991), and 40 CFR 61.109(b).

EPA also stayed subpart I for NRC and Agreement State licensees other than nuclear power reactors while EPA was collecting additional information necessary to make a determination under section 112(d)(9) of the 1990 Clean Air Act Amendments. See 56 FR 18735 (April 24, 1991), and 40 CFR 61.109(a). However, on September 25, 1992, the D.C. Court of Appeals issued a decision that EPA had exceeded its authority by staying subpart I while EPA was collecting information needed to make a determination under section 112(d)(9). *Natural Resources Defense Council* v. *Reilly*, 976 F.2d 36 (D.C. Cir. 1992). The stay for licensees other than nuclear power reactors expired before the *NRDC* decision could be implemented on November 15, 1992, and subpart I took effect for these licensees on November 16, 1992.

2. New Authority in the Clean Air Act Amendments

In November of 1990, Congress enacted amendments to the Clean Air Act. Section 112(d)(9) of the Clean Air Act Amendments allows EPA to decline to regulate NRC-licensed facilities if the Administrator determines, by rule, and after consultation with the Nuclear Regulatory Commission, that the

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regulatory program established by the Nuclear Regulatory Commission pursuant to the Atomic Energy Act for such category or subcategory provides an ample margin of safety to protect the public health.

The legislative history of section 112(d)(9) indicates the manner in which Congress intended that EPA interpret the phrase "an ample margin of safety to protect the public health" when making the finding required by section 112(d)(9). The Conference Report indicates that the "ample margin of safety" the Administrator must find under section 112(d)(9) is the same "ample margin of safety" that governed the development of standards promulgated under section 112 prior to the 1990 amendments. H.R. Rep. 952, 101st Cong., 2d Sess. 339 (1990). The two-step process by which EPA identified an "ample margin of safety" was described in detail in a U.S. Court of Appeals decision, *NRDC* v. *EPA*, 824 F.2d 1146 (D.C.Cir 1987) (the Vinyl Chloride decision). The 1989 NESHAPs standard represents the Agency's application of the *Vinyl Cloride* decision and is consistent with the Agency's approach for regulating hazardous air pollutants under section 112 of the Clean Air Act.

3. Construction of Section 112(d)(9)

From the language of section 112(d)(9), it is apparent that where EPA has already specifically determined what level of emissions must be achieved to provide an "ample margin of safety," that level is the benchmark by which EPA must evaluate the adequacy of the NRC program. In the present case, EPA specifically found when it promulgated 40 CFR part 61, subpart I, that an emission level that would result in a dose no greater than 10 mrem/year was necessary to provide the requisite "ample margin of safety." 54 FR 51654 (December 15, 1989).

Section 112(d)(9) does not, however, require exact equivalence between the EPA and NRC programs applicable to a particular category of licensees before EPA may decline to regulate radionuclide emissions from that category. Rather, it requires that EPA conclude that implementation of the NRC program as a whole will achieve substantive protection of the public health equivalent to or better than that which would be achieved by enforcement of an EPA standard. Thus, if the NRC program as a whole will assure that emissions from all affected licensees remain below the EPA standard, the NRC program may be deemed to provide an ample margin of safety, regardless of whether this results from enforcement by NRC of a single numerical standard.

In deciding whether EPA may decline to regulate a particular category or subcategory of NRC or Agreement State licensees, EPA construes section 112(d)(9) as requiring that EPA determine: (1) That emissions from NRC licensees (or Agreement State licensees when authority to regulate the licensees has been relinquished by NRC) in that category or subcategory will be consistently and predictably at or below a level resulting in a dose of 10 mrem/year, and (2) that NRC (or the Agreement States) can and will require any individual licensee in that category or subcategory with emissions that cause a dose exceeding 10 mrem/year to reduce the emissions sufficiently that the dose will not exceed 10 mrem/year.

4. Reconsideration of Subpart I

After the adoption of section 112(d)(9), EPA reviewed the information available to the Agency, including the information provided during the Agency's reconsideration of subpart I, to decide whether it could determine, for particular categories of licensees, that the NRC regulatory program protects public health with an ample margin of safety. EPA's initial analysis focused on two general issues: (1) Whether the NRC regulatory program in practice results in sufficiently low doses to protect the public health with an ample margin of safety; and (2) whether the NRC program is sufficiently comprehensive and thorough and administered in a manner which will continue to protect public health in the future.

a. Nuclear Power Reactors

During its initial assessment of the NRC program under section 112(d)(9), EPA concluded that the Agency had sufficient information concerning NRC regulation of nuclear power reactors to enable EPA to make the requisite finding concerning the adequacy of the NRC program. For nuclear power reactors, EPA made a preliminary determination that the NRC regulatory program protects public health with an ample margin of safety. On March 13, 1991, EPA issued an Advanced Notice of Proposed Rulemaking announcing the Agency's intention to enter into a rulemaking to rescind subpart I as applied to nuclear power reactors. (56 FR 10524). This was followed on August 5, 1991 by a Proposed Rule to rescind subpart I with respect to nuclear power reactors. (56 FR 37196).

b. Licensees other than Nuclear Power Reactors

After reviewing the available information for licensees other than nuclear power reactors, EPA concluded that it lacked sufficient information concerning actual emissions from these facilities to make the substantive determination contemplated by section 112(d)(9). Accordingly, EPA undertook an extensive study in order to determine the doses resulting from radionuclide emissions at these facilities. EPA surveyed a randomly selected subset of all licensed facilities, as well as a group of "targeted" facilities chosen because of an expectation that they would have higher emissions.

EPA evaluated the results of its study of NRC and Agreement State licensees other than nuclear power reactors using the COMPLY computer program. None of the facilities evaluated appeared to cause a dose exceeding the 10 mrem/year level established by subpart I. When the results of the survey were statistically extrapolated to the entire population of NRC and Agreement State licensees, EPA concluded that virtually all of the facilities would cause doses to members of the public which are below 10 mrem/year.

After reviewing the current NRC regulatory program, and considering the likely effect of additional measures which NRC had agreed to adopt pursuant to a Memorandum of Understanding, EPA proposed to rescind subpart I for NRC and Agreement State licensees other than nuclear power reactors on December 1, 1992. See 57 FR 56877 (December 1, 1992). However, EPA subsequently identified several concerns regarding the Agency's ability to make the substantive finding for these licensees required by section 112(d)(9). In particular, EPA was concerned that the present NRC program would not assure that radionuclide emissions from each such licensee would cause a dose no greater than 10 mrem/year, and that NRC or the individual Agreement State might not be able to require a particular licensee exceeding 10 mrem/year to reduce its emissions.

EPA initiated consultations with the NRC intended to resolve these concerns, and EPA and NRC have recently agreed on proposals which, when fully implemented, should provide a satisfactory basis for rescission of subpart I for NRC and Agreement State licensees other than nuclear power reactors. In a forthcoming notice, EPA will reaffirm its proposal to rescind subpart I for NRC and Agreement State licensees other than nuclear power

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reactors, describe the revisions to the NRC program which NRC has proposed, and provide an additional opportunity for comment concerning the sufficiency of the proposed revisions to support the finding required by section 112(d)(9).

B. Assessment of the NRC Program Controlling Air Emissions of Radionuclides From Nuclear Power Reactors

In order to determine whether the NRC regulatory program controlling air emissions from NRC-licensed commercial nuclear power reactors provides an ample margin of safety as required under section 112(d)(9), EPA has evaluated the doses which result from such emissions as well as the specific elements of the NRC program which operate to control or limit such emissions. In performing this analysis, EPA has focussed on the following questions:

(1) Do current radionuclide emissions during routine operations of nuclear power reactors licensed by NRC result in doses no greater than 10 mrem/year?

(2) Will the NRC regulatory program assure that routine radionuclide emissions from licensed nuclear power reactors in the future result in doses which are consistently and predictably no greater than 10 mrem/year?

(3) If at some point an individual nuclear power reactor has routine radionuclide emissions resulting in a dose greater than 10 mrem/year, will NRC require that the facility in question take actions which will reduce emissions to a level resulting in a dose no greater than 10 mrem/year?

1. Doses Resulting From Radionuclide Emissions From Nuclear Power Reactors

Of the 100 light-water-cooled commercial nuclear power reactors operating in the United States at the time that EPA's analysis was conducted, 63 are pressurized water reactors (PWRs) and 37 are boiling water reactors (BWRs). These facilities are licensed by the NRC and involve operations with the potential for large releases of radionuclides.

During the rulemaking that resulted in the promulgation of the final rule in 1989, EPA performed exposure and risk assessments for radionuclide releases from Uranium Fuel Cycle (UFC) facilities, a category which includes nuclear power reactors. The results of these analyses showed that the most exposed individual receives a lifetime dose associated with a risk of fatal cancer of 1.5×10^{-4}. Almost all individuals in the exposed population received a lifetime risk of less than 1×10^{-6}. These estimated risks are for UFC facilities as a whole. For the models used for PWRs and BWRs, the values were much lower. The risk to the most exposed individuals were 3×10^{-6} and 5×10^{-6} for the model PWR and BWR, respectively. The predicted incidences of fatal cancers per year in the populations surrounding these model plants were 7×10^{-4} and 1×10^{-3} for the PWR and BWR, respectively. EPA determined that baseline emissions from the UFC category were at a safe level, i.e., protected the maximally exposed individual to a lifetime risk level of approximately one in ten thousand.

EPA independently calculated doses for every site with one or more operating nuclear power reactor using 1988 emissions data, the most recent year for which a complete set of data was available at that time. If a plant had below normal emissions in 1988, emissions data for a more typical year were used in the analysis. Site-specific data were obtained to the maximum extent practical and used as input to the CAP–88 computer codes. In all cases, the calculated doses to the maximally exposed individual did not exceed 1.0 mrem/year ede. This is equivalent to a maximum lifetime individual risk of approximately 3 in 100,000. Thus, the NRC regulatory program, for the years examined, resulted in doses which are at least 10 times lower than the 10 mrem/year ede standard established by subpart I.

EPA also compared the 1988 data with historical data, dating back to 1975, to determine if the 1988 data were representative of long term trends in population and individual doses. Although the populations around the reactor facilities and the facility capacity factors have increased over the last fifteen years, EPA determined that the average annual collective population doses had steadily declined.

During the present rulemaking, EPA conducted a review of the nuclear power reactor segment of the uranium fuel cycle and determined that the individual doses associated with radionuclide emissions from nuclear power reactors are even lower than were previously estimated. This latest analysis estimates that the most exposed individuals receive doses from nuclear power plants of less than 1.0 mrem/year ede from all radionuclides and a dose of less than 0.01 mrem/year ede from radioiodines. The highest estimated dose in these more recent analyses remains at least an order of magnitude below the 10 mrem/year ede standard established by subpart I.

Thus, the evidence clearly demonstrates that current radionuclide emissions from nuclear power reactors licensed by NRC result in doses no greater than 10 mrem/year. The remaining questions considered by EPA require assessment of the elements of the NRC program which control and limit air emissions from nuclear power reactors. An assessment of the NRC regulatory framework which applies to licensed nuclear power reactors follows.

2. The NRC Regulatory Program for Nuclear Power Reactors

Section 2 of the Atomic Energy Act of 1954 (AEA), as amended, 42 USC 2012, emphasizes that an important national goal in regulating utilization facilities, which would include all nuclear power reactors, is protecting the "health and safety of the public." Pursuant to that mandate, NRC has an extensive regulatory program covering all facets of reactor design, construction, and operation, including regulations specifically addressing the release, airborne and otherwise, of radionuclides.

a. Regulations Governing Radionuclide Emissions

There are three regulations which control routine Radionuclide emissions from commercial nuclear power plants: (1) 10 CFR part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents"; (2) 40 CFR part 190, "Environmental Radiation Protection Standards for Nuclear Power Operations"; and (3) 10 CFR part 20, "Standards for Protection Against Radiation."

10 CFR part 50, Appendix I, provides numerical guides for design objectives and limiting conditions for operation to assist licensees in meeting the requirements of §§ 50.34a and 50.36a that radioactive material in effluents released to unrestricted areas be kept as low as is reasonably achievable (ALARA). The licensee satisfies the design objectives, in part, by demonstrating that the gaseous radionuclide releases to the atmosphere from each reactor on site will not result in an estimated average annual air dose in excess of 10 millirad (absorbed dose) for gamma exposure and 20 millirad (absorbed dose) for beta exposure. These limits are air doses, resulting from exposure to noble gases in unrestricted areas, which could be occupied by an individual. Lower radionuclide release rates may be required to satisfy the design objectives if it appears that the releases are likely to result in an

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estimated annual external dose from gaseous effluents, to any individual in an unrestricted area, in excess of 5 mrem/year. Alternatively, higher release rates may be acceptable if the applicant can provide reasonable assurance that the external dose to any individual in an unrestricted area, from noble gases, will not exceed 5 mrem/year to the whole body. [For noble gases, the whole body dose is the same as the effective dose equivalent.] The applicant must also demonstrate that the calculated annual total quantity of all radioiodines and radioactive particulates released to the atmosphere from each reactor will not cause exposures to any individual in unrestricted areas from all pathways in excess of 15 mrem/year to any organ. A dose of 15 mrem/year to the thyroid from radioiodines will result in an effective dose equivalent of less than 0.5 mrem/year, as the organ weighting factor for calculating the ede for the thyroid is 0.03. Thus, 10 CFR part 50, Appendix I, limits the total effective dose equivalent to approximately 6 mrem/year because essentially all of the internal emitters are radioiodines.

The limiting conditions of operation (LCOs) set forth in Appendix I are used to develop technical specifications which are included in the facility's license. The technical specifications assure that radionuclide releases during operations are consistent with the design objectives to maintain off-site doses ALARA. The technical specifications are enforceable requirements under NRC's enforcement policy (10 CFR part 2, Appendix C).

40 CFR part 190, "Environmental Radiation Protection Standards for Nuclear Power Operations," requires uranium fuel cycle operations to be conducted in such a manner that there is reasonable assurance that the annual radiation dose equivalent to any member of the public from all uranium fuel cycle sources does not exceed 25 mrem to the whole body, 75 mrem to the thyroid, and 25 mrem to any other organ. The standard applies to gaseous and liquid effluent pathways and direct radiation from these facilities.

In 1981, the NRC amended its regulations to incorporate these standards. Sections 20.105(c) and 20.106(g) specifically required licensees engaged in uranium fuel cycle operations to comply with the 40 CFR part 190 dose limits.

10 CFR part 20, "Standards for Protection Against Radiation," consists of standards for protection against radiation hazards arising out of activities conducted under licenses issued pursuant to the AEA of 1954, as amended. The portions of part 20 that applied to radionuclide emissions from licensed facilities were contained in § 20.105, which set permissible levels of radiation in unrestricted areas, and § 20.106, which established limits on radioactivity in effluents to unrestricted areas. On May 21, 1991 (56 FR 23360), major revisions to part 20 were published by the NRC, and compliance with the revisions became mandatory for all licensees on January 1, 1994. The revised rule implements 1987 Presidential guidance on occupational radiation protection and the recommendations of scientific organizations to establish risk-based limits and a system of dose limitation in accordance with the guidance published by the International Commission on Radiation Protection. In adopting the risk-based methodology, the NRC established an explicit dose limit for members of the public of 2 mrem/hr not to exceed 100 mrem/year ede, and extended an explicit ALARA requirement to all licensees. Doses resulting from direct radiation and radionuclides released in gaseous and liquid effluents must be evaluated in determining compliance with the numerical limits. The revised part 20 also requires licensees to comply with the standards set forth in 40 CFR part 190 for the uranium fuel cycle (10 CFR 20.1301(d)).

In addition to these numerical standards, part 20 also requires that each licensee make every reasonable effort to maintain radiation exposures, and releases of radioactive material in effluents to unrestricted areas, to levels which are ALARA (10 CFR 20.1101(b)).

The principal radionuclides routinely released in the gaseous effluents from commercial light-water reactors are noble gases and radioiodines. The whole body dose from noble gas emissions per reactor is limited by the 5 mrem/year limit of Appendix I. The organ doses from radioiodines and particulates are limited to 15 mrem/year. For radioiodines, where the thyroid gland is the critical organ, 15 mrem/yr effective dose equivalent equates to 0.45 mrem/year. Thus, the total ede allowed under Appendix I is even less than 6 mrem/year. The guidelines set forth in Appendix I and the standards set forth in 40 CFR part 190 together establish a regulatory framework that provides a high level of assurance that the routine emissions from commercial light water reactors will not result in exposures in excess of the EPA 10 mrem/year ede standard.

b. Monitoring

Compliance with 10 CFR part 50, Appendix I, and with 40 CFR part 190 is demonstrated through the establishment of Limiting Conditions of Operation (LCOs) and Radiological Effluent Technical Specifications (RETS) for each nuclear power reactor in accordance with 10 CFR 50.36a. The LCOs and associated RETS require that if the quantity of radioactive material actually released in effluents to unrestricted areas in any calendar quarter results in radiation exposure, calculated on the same basis as the design objectives, exceeding one half the annual design objectives, the licensee is required to investigate the cause of the release, define and initiate corrective actions to prevent a recurrence, and report these actions to the NRC within 30 days from the end of the quarter in which the release occurred.

The LCOs and RETS also require licensees to initiate effluent and environmental monitoring programs to provide (1) data on the types and quantities of radionuclides released, (2) the levels of radiation and radioactive materials in the environment, and (3) changes in land use and demography in the vicinity of the site that pertain to compliance with the LCOs. If the monitoring data reveal that the relationship between the quantities of radioactive materials released and the doses to individuals in unrestricted areas is significantly different than that assumed in the calculations used to assess compliance with the design objectives, the NRC may require a modification of the RETS.

In order to provide assistance to licensees in complying with the LCOS and preparing their RETS, the NRC has issued the following guidance: NUREG–0472 and –0473, "Standard Radiological Effluent Technical Specifications for PWRs (and BWRs)," U.S. NRC, January 1983; NUREG–0133, "Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants," U.S. NRC, October 1978; NUREG–1301 and NUREG–1302, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors (and Boiling Water Reactors)," U.S. NRC, April 1991; and U.S. NRC Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Waste and Releases of Radioactive Material in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants".

These documents provide highly detailed standard RETS and procedures for implementing them. Detailed guidance is provided in the areas of effluent monitoring instrumentation; specific equations, assumptions and

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methodologies addressing short- and long-term radioactive releases; and the use of gaseous radwaste treatment systems.

c. Inspections

To ensure that licensees are meeting all regulatory and license-specific effluent and environmental protection requirements, each facility receives approximately 2 radiation protection inspections per year by regional NRC inspectors. Along with the plants' reporting requirements, the inspections determine the degree to which each plant is in compliance with its license and technical specifications, including its RETS. If problem areas are identified, follow-up inspections are scheduled in order to ensure that deficiencies are corrected. If a facility appears to have persistent problems in particular areas, the facility is subjected to inspections on a more frequent basis.

The periodic inspections of the RETS include a review of records and procedures, interviews with plant personnel, and audits of the licensee's effluent and environmental measurements program. The results of these analyses not only indicate the level of radioactive material in the effluent, but also indicate the degree of accuracy and precision of the facility's own effluent monitoring equipment.

Each operating commercial power plant has at least one full time NRC Senior Resident Inspector who provides continuous health and safety oversight of plant operations. Sites with multiple reactors have at least one Resident Inspector per reactor. If problem areas arise pertaining to compliance with the RETS, the Resident Inspector may request special inspections and/or audits of related plant operations on a more frequent basis.

All inspections performed by either on-site Resident Inspectors or inspectors from the NRC Regional offices or NRC Headquarters are fully documented. These reports are made available to the public in the NRC Public Document Rooms located in the host community, the regional offices, and in Washington, DC. The reports are filed in the separate docket established for each reactor site. Reportable licensee events include exceeding effluent release rates, worker overexposures, procedure violations, and accidents. If detailed event information is desired, it can be obtained from the LER filed in the individual docket.

C. Summary of Major Comments and EPA Responses

This section contains a brief description of the major comments received relating to the Agency's rescission of 40 CFR part 61, subpart I for nuclear power reactors. During the comment period for other rulemakings, such as the proposed stays for subpart I, the Agency received additional comments on the specific issue of whether to rescind subpart I for nuclear power reactors. EPA stated at the time that such substantive comments would be addressed at the appropriate time following a proposed rule to rescind subpart I. These comments are now extensively discussed in the Response to Comments Document which has been placed in the docket for public review. The Response to Comment document also addresses those comments received during the 60-day comment period for the subject rulemaking as well as comments presented at the September 1991 public hearings held in Washington, DC and in Seattle, Washington.

A major concern expressed by commenters relates to the regulatory authority of the states and how action such as this rescission, taken pursuant to section 112(d)(9), might affect the states' authority under the CAA to establish radionuclide air emission standards. This issue was recently addressed in a July 2, 1993 letter from Robert M. Bernero, Director of the Office of Nuclear Material Safety and Safeguards to Margo Oge, Director of EPA's Office of Radiation and Indoor Air. Mr. Bernero states that the NRC's Office of the General Counsel has examined the CAA, and relevant portions of the legislative history, "and has concluded that the passage of the 1990 CAA amendments had no effect on the preexisting power of the States under section 116 to establish radionuclide air emission standards, regardless of any action EPA might take pursuant to section 112(d)(9)." EPA concurs with NRC's construction. In addition, this issue was extensively discussed by the Senate during floor debate for the Clean Air Act Amendments of 1990. Passage of the "Simpson amendment" failed on the first vote due to similar concern that the amendment somehow affected states' rights and required resolution before the amendment ultimately succeeded in passage. As explained by Senator Burdick, the bill does not affect existing states' rights. "Section 112(d)(9) provides for State authority for radionuclide emissions in the same manner and to the same extent as does existing section 116" of the Clean Air Act, which contains the provision that "nothing in this Act shall preclude or deny the right of any state or political subdivision thereof to adopt or enforce any standard or limitation respecting emissions of air pollutants * * *" April 3, 1990 Congressional Record-page S3798.

Another significant issue which arose during the comment period concerned whether the performance and testing requirements imposed on licensees to assure that the regulatory requirements for stack emissions monitoring and off-site air monitoring are being met. After carefully reviewing NRC's regulatory requirements for airborne effluent and environmental monitoring, the Standard Review Plan and Regulatory Guides, and the inspection procedures that the NRC uses to assure that licensees have installed and are maintaining monitoring systems in conformance with the regulatory requirements, EPA concluded that NRC's program assured that these factors were being adequately addressed and does not preclude EPA's rescission of Subpart I.

D. Final Action

This final rule rescinding subpart I for commercial nuclear power reactors licensed by the NRC is the culmination of the Agency's reconsideration of Subpart I for this category of licensees. EPA has determined that current radionuclide emissions from NRC-licensed nuclear power reactors during routine operations are consistently well below levels which would result in doses exceeding 10 mrem/year ede. Moreover, EPA has comprehensively evaluated the individual elements of the NRC regulatory program which control radionuclide emissions from these facilities. Based on this evaluation, EPA has determined that radionuclide emissions during routine operations of NRC-licensed nuclear power reactors are expected to remain well below levels which would result in a dose exceeding 10 mrem/year. EPA has further determined that NRC can and will require any licensed nuclear power reactor which has radionuclide emissions resulting in a dose exceeding 10 mrem/year to take specific actions which will reduce emissions to a level which results in a dose below 10 mrem/year. Based on these determinations, EPA finds under section 112(d)(9) that the NRC regulatory program for licensed commercial nuclear power reactors provides an ample margin of safety to protect public health.

This finding with respect to licensed commercial nuclear power reactors does not apply to other NRC or Agreement State licensees. Although EPA anticipates that the revisions to the NRC program for licensees other than nuclear power reactors proposed by NRC as part

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of recent consultations with EPA will be sufficient to support the finding required by section 112(d)(9) for these licensees as well, EPA does not intend to conclude the rulemaking concerning rescission of Subpart I for these other licensees until NRC has taken final action concerning its proposals.

EPA is prepared to proceed with rescission for nuclear power reactors immediately due to several factors which are unique to this category of facilities. NRC has established an ALARA guideline for nuclear power reactors which equates to approximately 6 mrem/year ede, and the individual facilities have consistently committed to achieving this level. Measured emissions from nuclear power reactors have also been consistently well below this target level.

In addition, NRC-licensed nuclear power reactors are a relatively small, homogeneous and well-characterized group of facilities. EPA knows enough about the magnitude of routine emissions from nuclear power reactors, the technology utilized to limit such emissions, and the administration of the NRC program to control such emissions to conclude that NRC will not accept or countenance ALARA emissions from these facilities which would result in a dose exceeding 10 mrem/year. NRC itself maintains direct oversight of licensed nuclear power reactors. In contrast, NRC licensees other than nuclear power reactors are a heterogeneous category and consists of a variety of different types of facilities. Based on the available database in EPA's 1992 BID, about 6,000 licensees are administered by NRC and about 12,000 licensees are administered by the NRC Agreement States.

In determining whether the NRC regulatory program for a given category of licensees provides an ample margin of safety to protect the public health, EPA need not establish exact equivalence between the EPA regulatory program under the Clean Air Act and the NRC regulatory program. Instead, EPA has examined the enforceable elements in the NRC program to determine whether they will assure an equivalent degree of protection for public health. EPA is confident that the NRC regulatory program for nuclear power reactors provides protection as stringent as subpart I, and thereby protects public health with an ample margin of safety. Based on this conclusion, EPA is today rescinding 40 CFR part 61, subpart I, as it applies to NRC-licensed commercial nuclear power reactors.

Today's action is based upon the Agency's determinations concerning present emissions from licensed nuclear power reactors, and on the Agency's evaluation of the elements of the current NRC regulatory program. If the NRC program were to change in the future in a manner which permitted radionuclide emissions from routine operations of nuclear power reactors to cause doses exceeding 10 mrem/year, EPA would consider repromulgating subpart I for such licensees at that time.

D. Judicial Review

Any petition for judicial review of this final rule must be filed in the United States Court of Appeals for the District of Columbia within 60 days from the date this rule is published in the **Federal Register**. Only an objection to the rule which was raised with reasonable specificity during the period for public comment (including public hearings) may be raised as part of any petition for judicial review.

E. Miscellaneous

1. Paperwork Reduction Act

The reporting and record keeping requirements rescinded in today's notice were approved by OMB as part of the Information Collection Request for the Radionuclide NESHAP, OMB control number 2060–0191. The EPA has submitted an Information Correction Worksheet to OMB to delete the burden associated with these requirements from that clearance.

2. Executive Order 12866

Under Executive Order 12866, (58 FR 57735, October 4, 1993) the Agency must determine whether this regulation, if promulgated, is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

This action will not result in an annual effect on the economy of $100 million or another adverse economic impact, does not create a serious inconsistency or interfere with another agency's action, and does not materially alter the budgetary impacts of entitlements, grants, user fees, etc. However, EPA has concluded that this action may be construed as raising novel legal or policy issues. Accordingly, EPA has submitted this action to OMB and has obtained the requisite approval under the terms of Executive Order 12866.

3. Regulatory Flexibility Analysis

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 605(b) of the Act provides that an analysis not be required when the head of an Agency certifies that the rule will not, if promulgated, have a significant impact on a substantial number of small entities.

It was found in the 1989 rule for 40 CFR part 61, subpart I, that there was no significant impact on small business entities. There has been no change in this finding. Because the changes ease the regulatory burdens associated with provisions of the existing final rule, EPA believes that this rule will have no adverse effect on small businesses. For the preceding reason, I certify that this rule will not have significant economic impact on a substantial number of small entities.

List of Subjects in 40 CFR Part 61

Air pollution control, Arsenic, Asbestos, Benzene, Beryllium, Hazardous materials, Mercury, Radionuclides, Vinyl Chloride.

Dated: August 28, 1995.

Carol M. Browner,

Administrator.

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

PART 61—[AMENDED]

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

Authority: 42 U.S.C. 7401, 7412, 7414, 7416, 7601.

2. Section 61.100 is revised to read as follows:

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§ 61.100 Applicability.

The provisions of this subpart apply to facilities other than nuclear power reactors which are licensed by the Nuclear Regulatory Commission. This subpart also applies to facilities owned or operated by any Federal agency other than the Department of Energy, except that this subpart does not apply to disposal at facilities regulated under 40 CFR part 191, subpart B, or to any uranium mill tailings pile after it has been disposed of under 40 CFR part 192, or to low energy accelerators, or to any NRC-licensee that possesses and uses radionuclides only in the form of sealed sources.

§ 61.107 [Amended]

3. Section 61.107 is amended by removing paragraph (c)(1) and by redesignating paragraphs (c)(2) and (3) as (c)(1) and (2).

§ 61.109 [Removed]

4. Section 61.109 is removed.

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