



CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

January 24, 1992

The Honorable Gerry E. Studds, Chairman
Subcommittee on Fisheries and Wildlife
Conservation and the Environment
Committee on Merchant Marine and Fisheries
United States House of Representatives
Washington, D.C. 20515-6230

Dear Mr. Chairman:

I am responding to your letter of December 18, 1991, which requested information on the Nuclear Regulatory Commission's (NRC's) oversight of radionuclide discharges from the Pilgrim Nuclear Power Station in Plymouth, Massachusetts. Our detailed answers to the four specific questions in your letter are provided in Enclosure 1.

NRC's requirements governing radionuclide discharges at the Pilgrim facility are contained in 10 CFR Part 20 and the Pilgrim Technical Specifications. With the passage of the Federal Clean Water Act, the possibility of duplicative radionuclide discharge regulations arose. Consequently, the NRC and the Environmental Protection Agency (EPA) defined their respective roles in this area in a Memorandum of Understanding (MOU), published in the Federal Register on December 31, 1975 (Enclosure 2).

This has resulted in the NRC, the EPA, and the Commonwealth of Massachusetts all participating in the regulation of radionuclide discharges at Pilgrim. The EPA and the Commonwealth of Massachusetts jointly issue the National Pollutant Discharge Elimination System (NPDES) permit which provides the certification required by Section 401 of the Federal Clean Water Act. The current NPDES permit states:

The discharge of radioactive materials shall be in accordance with the Nuclear Regulatory Commission operation requirements (10 CFR 20 and NRC Technical Specifications set forth in facility operating license DPR-35).

As noted in our detailed response to Question 3, the licensee's monitoring efforts at the site are reported to the NRC and are reviewed by the Commonwealth of Massachusetts.

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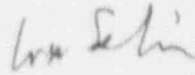
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I hope our comments have clarified this matter for you and the members of your subcommittee.

Sincerely,



Ivan Selin

Enclosures:

1. Questions and Answers
2. Federal Register
Notice 40 FR 60115

RESPONSE TO CHAIRMAN STUDD'S QUESTIONS

Question 1: Has Pilgrim been certified as meeting Massachusetts' water quality standards under Section 401 of the Clean Water Act?

Answer:

Yes. At the Pilgrim Nuclear Power Station, the certification required by Section 401 of the Federal Clean Water Act is provided by the National Pollutant Discharge Elimination System (NPDES) permit jointly issued by the Environmental Protection Agency (EPA) and the Commonwealth of Massachusetts pursuant to provisions of the Federal Clean Water Act (33 U.S.C. § § 1251 et seq; as amended), and the Massachusetts Clean Waters Act (21 M.G.L. § § 26-53, as amended). The current NPDES permit, Federal Permit No. MA0003557 and State Permit No. 359, was renewed on April 29, 1991. Part I, paragraph A.1.e of the permit states the following regarding radioactive materials:

The discharge of radioactive materials shall be in accordance with the Nuclear Regulatory Commission operation requirements (10 CFR 20 and NRC Technical Specifications set forth in facility operating license DPR-35).

Pilgrim's Technical Specifications (TS) are contained in Appendix A to the Operating License (DPR-35). Sections 3.8A, 4.8A and 7 and 8 of the Technical Specifications establish the limiting radioactive effluent concentration and requirements for the Radiological Environmental Monitoring Program (REMP). Thus, Pilgrim is certified by the State and Federal authorities through the

NPDES permit and the Pilgrim TS as meeting Massachusetts' water quality standards under Section 401 of the Clean Water Act.

Question 2: How often are Pilgrim's radionuclide discharges monitored?

Answer:

The licensee samples and analyzes each discharge of liquid wastes from Pilgrim as part of the radioactive effluent control requirements of the plant's Technical Specifications (TS) before releasing any liquid wastes. During any release, the licensee has a continuous, on-line monitor which will stop the release if pre-set limits are exceeded. In 1991, the licensee released an average of two discharges each week. Further, as part of the Radiological Environmental Monitoring Program (REMP), the discharge canal is continuously monitored by a composite sampler, from which the licensee analyzes a sample for radionuclides each month.

During its routine inspection program, the NRC reviews the licensee's program for sampling, analyzing, and controlling these discharges and examines random samples of records to determine if releases have met regulatory requirements. Part of this review includes independent evaluation of the licensee's measurements of radioactivity in liquid effluents using the NRC Region I Mobile Radiological Measurement Laboratory.

Question 3: Who conducts the monitoring, and what samples are taken?

Answer:

The licensee conducts the sampling and analysis of the radioactive liquid effluents from discharge points, as required by Pilgrim's Technical Specifications Section 3.8. The licensee provides reports of the samples and analyses to the NRC, the Massachusetts Division of Water Pollution Control, and the Massachusetts Department of Public Health. Personnel from the Massachusetts Department of Public Health's Office of Radiological Control visit the Pilgrim Station each week to review liquid discharges and discharge records.

The licensee has implemented a Radiological Environmental Monitoring Program (REMP), as required by Pilgrim's Technical Specifications Sections 7 and 8, to evaluate the effects of Pilgrim's operation on the environs and to verify the effectiveness of the discharge limits on reducing the amount of radioactive materials in liquid effluent. The licensee collects environmental samples and forwards them to an independent contractor for detailed analysis of radioactive materials. The environmental samples include composite discharge samples from discharge outfall locations and samples of sediment and biota (fish, mussels, lobsters, and Irish moss). The NRC reviews the adequacy of the licensee's program on a periodic basis.

Question 4: What is Pilgrim's record of compliance with water quality standards?

Answer:

The concentrations of radioactive effluents in the discharges from Pilgrim have consistently been within the applicable regulatory limits. The sampling and analysis program established in Pilgrim's Technical Specifications is structured to demonstrate compliance with the corresponding controls set forth by the NRC's limits governing radioactive liquid effluents.

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and authority under NEPA in licensing actions covered by 10 CFR Part 50, Appendix D, now superseded by 10 CFR Part 51. Both the First Memorandum and Interim Policy Statement were made effective upon publication, but comments were invited from interested persons with a view to possible amendments to the Interim Policy Statement.

After consideration of comments to both notices and other relevant factors, NRC and EPA have entered into the Second Memorandum of Understanding set forth below and NRC has adopted the revised Policy Statement set forth in Appendix A to this Second Memorandum. The revised Policy Statement will serve as the legal framework for NRC decision-making concerning licensing matters covered by NRC and FWPCA sections 511. The January 29, 1973 Memorandum is superseded by the present Second Memorandum of Understanding.

The significant changes from the language of the Proposed Second Memorandum of Understanding and the significant comments received on the Second Memorandum are summarized below:

1. A number of comments were received concerning NRC-EPA-State relationships. The principal comments are discussed below.

a. It was recommended that the NRC-EPA-State relationship be clarified and that States should be made a full party to any agreement of understanding on specific projects. The requested clarification is provided in Sections 4 & 9 of this Memorandum. Both NRC and EPA plan to work closely with States in all cases, however, it was not considered practical to make the 50 States a party to this Memorandum at this time. NRC and EPA plan to work with States in order to achieve the substance of the Memorandum on a State-by-State basis.

b. It was recommended that the States should be informed of the results of the EPA, NRC, and Energy Research and Development Administration (ERDA) working groups. Eight such working groups covering the various biological and engineering areas of interest for section 316(a) and (b) determinations were established by EPA to generally identify the information on water quality and biota that must be included in applicants' environmental reports to permit early water quality decisions. This will be done by EPA in the form of a section 316(a) technical manual and a section 316(b) technical manual.

c. It was stated that when a State is the permit issuance authority pursuant to section 402, EPA should not duplicate the State's evaluation of compliance with FWPCA requirements. EPA will not duplicate State efforts; however, section 402(d) provides for EPA review of the State action.

d. It was urged that EPA require that State permit programs include procedures for early determinations under sections 316(a) and (b) of the FWPCA. It is the view of the parties that the States with approved National Pollutant Discharge Elimination System (NPDES) permit programs have authority to establish a procedure similar to the early permit issuance procedure discussed in

Paragraph 3 hereof. Both EPA and NRC strongly encourage States which have such authority to institute a similar early issuance procedure and to cooperate with EPA and NRC in implementing this procedure.

e. It was pointed out that a number of States have adopted "Permit and Install Regulations," e.g., Ohio, South Carolina and New York, which must be taken into account. Such State regulations will be taken into account by NRC and EPA.

2. It was suggested that the fact should be clarified that a single environmental statement will be prepared to meet NRC and EPA needs. This comment has been adopted.

3. It was suggested that an actual section 402 discharge permit should be issued rather than a "Preliminary Determination" and the effective date of such permit should coincide with the NRC operating license issuance date. This suggestion was partially adopted by providing for early issuance of section 402 permits. Such permits will contain appropriate terms and conditions for all discharge or pollutants expected during the life of the permit (five years maximum) and terms and conditions with regard to cooling water intake structures and Section 316(a) determinations concerning thermal discharges. Additional permit terms and conditions for discharges not contemplated during the life of the permit (such as certain chemical and other releases not expected until operation startup) may be derived from applicable State water quality standards and applicable new source performance standards contained in 40 CFR Chapter 1, Subchapter N. Permits will be issued, as appropriate, and any reissued permit to be effective at the commencement of actual discharge as provided above, may require additional limitations and controls based on data gathered during the initial permit or may require additional section 316(a) and (b) studies for the purpose of confirming conclusions reached from previous predictive studies.

4. It was suggested that NRC's role in the water quality area should be clarified and NRC should discontinue its practice of determining compliance with requirements of the FWPCA and should cease evaluating alternatives relating to environmental effects regulated under the FWPCA. This matter is addressed in the Policy Statement (Appendix A to this Memorandum) which is discussed in more detail below.

5. It was recommended that NRC should initiate a rulemaking proceeding to develop regulations through which the environmental effects of activities subject to the FWPCA can be factored into the cost-benefit analyses performed in each individual licensing proceeding. Prior to completion of that rulemaking, NRC should continue to evaluate, on a case-by-case basis, the environmental effects of facility systems either as proposed by applicants or as described in the Section 401 certificate or Section 402 permit issued for the particular facility, as appropriate. This suggestion was not adopted since NRC does not feel it would be practical at this time to treat the many individual and site specific facets of water quality impacts in a generic

fashion.

6. It was pointed out that the EPA headquarters-regional responsibility needs to be clarified, i.e., the Assistant Administrator for Enforcement is named as the prime EPA contact. The matter has been clarified in the Memorandum by stating that the principal EPA contact shall be the Assistant Administrator for Enforcement and/or the Regional Administrator or his designee as appropriate.

7. It was suggested that once a "Preliminary Determination" has been issued at the construction permit stage, one should not have to go through the "Preliminary Determination" at the operating license stage. The "Preliminary Determination" concept has been dropped and actual Section 402 permits will be issued, however, as indicated in the response to Comment 3, there will be need for reissuance of the permits at appropriate intervals.

8. It was suggested that Paragraph 1 of the applicability statement be broadened to apply to all environmental impacts of cooling systems, e.g., the effect of chemical effluents, entrainment of biota, etc. EPA's early section 402 permit will contain terms and conditions regarding thermal releases and cooling water intake requirements. In addition, with regard to chemical or other requirements, where an applicant seeks a variance from new source performance standards or any other applicable EPA regulation relative to discharges, EPA will consider the issues as necessary at the early section 402 permit stage. (See response to comment number 3.)

9. The question was raised as to whether discharge permit requirements will be made a part of the NRC environmental technical specifications. The matter of incorporation of permit requirements will depend on a case-by-case application of the requirements of NEPA and the Policy Statement set forth in Appendix A to the Memorandum.

10. It was stated that the terms and conditions of Section 401 certifications must not be changed between the Construction Permit and Operating License stage. Section 401 certifications are subject to change pursuant to section 401 (a) (3) of the FWPCA and are, therefore, beyond the scope of this Memorandum.

11. It was noted that the proposed Memorandum should be coordinated with the appropriate river basin commissions. Activities under the Memorandum will be coordinated with appropriate river basin commissions.

12. It was suggested that only the existence of significant issues should serve as a basis for revision of the "Preliminary Determination" at the time of issuance of the NPDES permit. It is suggested that "good cause" be replaced by "significant issues". As indicated above, the concept of "Preliminary Determinations" has been dropped in favor of the actual issuance and reissuance of section 402 permits.

In summary, the Memorandum:

1. Specifies the statutory authority of both agencies for entering into the Memorandum.

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2. Defines those licensing and regulatory activities to which the Memorandum shall be applicable.

3. Designates NRC as the lead agency for preparation of environmental statements for the identified activities as provided for in §1500.1(b) of the CEQ Guidelines for Preparation of Environmental Impact Statements (August 1, 1973).

4. Specifies that NRC and EPA will work together to identify needed environmental information for early evaluations related to impact from the identified activities on water quality and biota.

5. Provides for EPA to exercise its best efforts to evaluate impacts on water quality and biota as far as possible in advance of the issuance of NRC's final environmental impact statement for any covered activity and specifies that EPA and NRC will maintain close working relationships during the entire environmental review process.

6. Specifies that EPA will issue to the applicant, where appropriate in light of substantive requirements, a complete Section 402 permit as far as possible in advance of authorization by the NRC of any commencement of construction or issuance by NRC of a license or early site approval, whichever is applicable. Such permits will contain appropriate terms and conditions for all discharges of pollutants expected during the life of the permit (five years maximum) and terms and conditions with regard to cooling water intake structures and Section 316(a) determinations concerning thermal discharges. Additional permit terms and conditions for discharges not contemplated during the life of the permit (such as certain chemical and other releases not expected until operation startup) may be derived from applicable State water quality standards and applicable new source performance standards contained in 40 CFR Chapter I, Subchapter N. Permits will be reissued, as appropriate, and any reissued permit to be effective at the commencement of actual discharge as provided above, may require additional limitations and controls based on data gathered during the initial permit or may require additional section 316(a) and (b) studies for the purpose of confirming conclusions reached from previous predictive studies. It is expected that the early issuance of Section 402 discharge permits will assure, to the maximum extent possible, that considerations regarding impacts on water quality and biota will not result in the need for significant changes in plant design or in the costs and benefits of the operation of the facility subsequent to the completion of NRC's environmental review.

7. Specifies that EPA and NRC will consider the feasibility of holding combined or concurrent hearings on EPA's proposed section 402 permits and NRC's proposed issuance of construction permits or other activities where appropriate.

8. Reaffirms the Memorandum of Understanding Regarding Implementation of Certain Complementary Responsibilities

1 See 16 CFR Part 1, Appendix A, Paragraph 1(c).

ties under the FWPCA and dated January 15, 19 and 22, 1973 (58 FR 2713).

After consideration of the comments received on the Interim Policy Statement and other factors involved, the NRC has adopted the revised Policy Statement set forth in Appendix A to the Memorandum. The significant changes from the language of the previous Interim Policy Statement are as follows:

a. Additional language has been included to make it clear that limitations imposed through the exercise of State authority preserved by section 510 of the FWPCA will be regarded by NRC as minimum limitations if they address matters different from matters addressed by other limitations imposed pursuant to the FWPCA.

b. The bases for cost-benefit analyses of alternatives have been clarified and modified. First, the specific requirement that, in designated circumstances, NRC independently determine the matter of compliance with FWPCA limitations and requirements has been deleted. NRC believes that in light of the general requirement that full certifications regarding compliance be furnished to it prior to license or permit issuance pursuant to section 401, and in light of the provisions of the memorandum providing for early issuance of permits pursuant to section 402, due regard will be given to the compliance matter within the NRC regulatory context without NRC assuming an independent and essentially duplicative function in this regard. Second, the requirement that environmental impact be evaluated on the basis of discharges or other activities at the level of FWPCA limitations or requirements has been replaced by the requirement that environmental impact simply be evaluated. Whether that evaluation should be conducted at the level of the FWPCA requirements or at some level more protective of the environment will depend upon such factors as the physical nature of the facility and other circumstances of the case. Third, the provisions regarding alternatives have been modified and simplified so as to provide that NRC will not require adoption of an alternative in order to minimize impacts on water quality and biota that are subject to FWPCA limitations or requirements.

c. A new Paragraph has been added in response to a comment that the status of certification issued pursuant to section 51(b) of the FWPCA as in effect immediately prior to the date of enactment of the FWPCA should be clarified. In addition, the definition of FWPCA limitations or other requirements has been expanded to include limitations or other requirements of State law preserved by Section 510 of the FWPCA which have been imposed as license conditions pursuant to section 401(a)(2) of the FWPCA, and other paragraphs in the Policy Statement have been modified as appropriate to reflect this expanded definition.

d. A new Paragraph has been added to address the situation where limitations or other requirements with respect to heated effluents have been promulgated or imposed but a request for alternative effluent limitations under section 316(a) may be filed and no limitations under

section 316(a) have yet been imposed. Under these circumstances less stringent limitations or other requirements could be imposed with respect to heated effluents under section 316(a). The NRC would in this situation retain authority under NEPA, where necessary from the standpoint of environmental protection, to impose its own requirements with respect to heated effluents which were less stringent than or equally stringent as those promulgated or imposed under the various sections of the FWPCA other than Section 316(a). It is recognized that any such NRC requirements regarding heated effluents may be subject to modifications in light of the provisions of any later section 402 permit. Of course, where an early discharge permit is required, any NRC requirements would need to be consistent with the terms of the permit, and paragraph 8 of the Policy Statement would be inapplicable.

e. Finally, a new Paragraph 8 has been added to provide for an orderly transition period for proceedings, where the application and environmental report had been filed prior to enactment of the FWPCA, by affording recognition to proposals by the applicants to abide by more stringent requirements.

No comments were received on the Interim Policy Statement from any governmental agency or environmental organization. The comments that were received by NRC generally reflected the opinion that NRC was precluded by section 511 of the FWPCA from considering any water quality matters generally covered by the FWPCA regardless of the status of FWPCA implementation, and that the Interim Policy Statement would result in duplication of effort and confusion in licensing proceedings because of the evolving nature of FWPCA requirements. The NRC believes that NEPA and FWPCA require that NRC continue to exercise its NEPA responsibility to evaluate environmental impacts. The revised Policy Statement set forth in Appendix A to the Memorandum of Understanding seeks to avoid duplication of effort to the maximum extent consistent with statutory requirements. The NRC recognizes that some limited duplication of effort will result from the NRC continuing to evaluate environmental impact regardless of the status of FWPCA implementation but believes that this limited duplication of effort is a necessary incident to a proper implementation of section 511.

Several comments suggested that Paragraph 8 of the Interim Policy Statement was inconsistent with Paragraphs 4 and 5, dealing with alternatives. Revised paragraph 4 indicates that NRC will not require adoption of an alternative because it would produce less water pollution than allowed by FWPCA limitations or requirements. However, NRC would not be precluded from insisting on an alternative which is a better environmental solution taking into account total impacts such as air quality, aesthetics, etc., simply because it also produces less water pollution. Thus, for example, if a plant with once through cooling system complied with FWPCA thermal effluent limitations under section 316(a) of the FWPCA, more stringent thermal limita-

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ions would not be imposed by NRC as a result of consideration of another cooling system as an alternative unless matters not covered by the thermal effluent limitations such as effects of fogging indicated that such adoption was warranted.

Accordingly pursuant to NEPA, FWPCA Section 161 of the Atomic Energy Act and the Energy Reorganization Act of 1974 notice is hereby given that NRC and EPA with the concurrence of CEQ have entered into the following Memorandum of Understanding.

The NRC and EPA invite all interested persons to submit written comments or suggestions for consideration in connection with the Memorandum. The comments should be sent to the Secretary of the NRC, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 Attention: Docketing and Service Section on or before January 20, 1978. Consideration will be given to such submissions with the view to possible further amendments. Copies of comments received may be examined at the Commission's Public Document Room, 1717 H Street NW, Washington, D.C.

On January 27, 1978, NRC and EPA will hold a meeting to discuss the Memorandum and answer questions. All interested persons are invited to attend provided that notice of intent to attend is received by NRC prior to Jan. 20, 1978. The meeting will be held at NRC's Office at 7920 Norfolk Avenue, Bethesda, Maryland, beginning at 9:30 a.m. in Room F-118.

Dated at Washington, D.C. this 23rd day of December 1977.

For the Nuclear Regulatory Commission.

SAMUEL J. CHALK,
Secretary of the Commission.

SECOND MEMORANDUM OF UNDERSTANDING REGARDING IMPLEMENTATION OF CERTAIN NRC AND EPA RESPONSIBILITIES

Prior to the enactment of P.L. 95-590, the Federal Water Pollution Control Act Amendments of 1978 (FWPCA), the Atomic Energy Commission (AEC) had regulatory authority pursuant to the National Environmental Policy Act of 1969 (NEPA), in consideration of the environmental impact of the discharge of pollutants and other factors, to impose limitations on the discharge of pollutants from nuclear power plants and other facilities or activities requiring an AEC license or permit, as a condition of such license or permit.

The FWPCA now requires the Environmental Protection Agency (EPA) to establish (or use in permits for the discharge of pollutants to navigable waters of the United States from point sources as defined in the FWPCA, such as nuclear power plants, etc.) effluent limitations for all pollutants. The FWPCA (section 311) provides that nothing under NEPA shall be deemed to authorize any Federal agency to review any effluent limitation or other requirement established pursuant to the FWPCA, or to impose as a condition of any license or permit, any effluent limitation other than any such limitation established pursuant to the FWPCA.

Pursuant to the authority of the FWPCA, EPA requires applicants for discharge permits to submit information required by EPA in order to establish effluent limitations in permits. Pursuant to the authority of NEPA, NRC may require applicants for licenses or permits to submit information required by

NRC in order to evaluate and consider the environmental impacts of any actions it may take. Consequently the informational needs imposed by the two agencies may be similar in the area of impacts on water quality and biota.

The NEPA requires that all Federal agencies prepare detailed environmental statements on proposed major Federal actions which can significantly affect the quality of the human environment. A principal objective of NEPA is to require the Agency to consider in its decision-making process the environmental impacts of each proposed major action and the available alternative actions. Both EPA and NRC have responsibilities under NEPA regarding the issuance of licenses or permits for nuclear power plants and other facilities.

The purpose of this Memorandum is to clarify the respective roles of EPA and NRC in the discharge of pollutants to navigable waters from nuclear power plants and other facilities requiring a license or permit.

Requirements under the FWPCA which affect actions by the licensee: (1) The requirement under section 401 of the FWPCA for a discharge permit to be received by NRC prior to the issuance of a license or permit to conduct any activity which results in any discharges into navigable waters; (2) the requirement under section 301 of the FWPCA that a Section 402 National Pollutant Discharge Elimination System (NPDES) permit be issued for the discharge of any pollutant;

(3) the possibility that variances from section 301 or 306 thermal effluent limitations may be granted under Section 316(a); (4) the requirement under section 316(b) that the location, design, construction and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact; and (5) the provisions of section 311 as discussed above. Recognizing (1) NRC's and the applicant's need for early evaluation of impacts on water quality and biota that may arise from nuclear power plants and certain other activities requiring an NRC license or permit which are subject to the requirements of 10 CFR 31.3 (a), (2) EPA's and NRC's desire to reach such evaluation consistent with the requirements of the FWPCA and NEPA and (3) the need for minimizing duplication of effort, EPA and NRC agree that pursuant to their statutory authorities:

1. NRC will exercise its responsibility and authority under NEPA as modified by Section 311 of the FWPCA in accordance with the statement of policy set forth in Appendix A hereto. The Memorandum of Understanding Regarding Implementation of Certain Responsibilities Under the FWPCA and dated January 18, 1978 and 22, 1978 (58 FR 2713) is hereby rescinded.

2. Paragraphs 3 through 14 of this Memorandum of Understanding shall apply to requirements for the control and consideration of impacts on water quality and biota associated with the licensing and regulation including early site approval, of the following plants or facilities:

- a. Nuclear power and test facilities.
- b. Nuclear fuel reprocessing facilities.
- c. Uranium isotope enrichment facilities.
- d. Nuclear fuel fabrication plants.
- e. Uranium hexafluoride conversion plants.
- f. Uranium milling plants, and
- g. Nuclear waste treatment and storage plants.

3. NRC and EPA will work together to identify and consolidate the environmental information needed for early evaluations related to impacts on water quality and biota under the FWPCA with the objective that licensee form and timeliness of the information to be submitted by the applicant satisfy the requirements of both Agencies.

See 10 CFR Part 2, Appendix A, Paragraph 1(c).

This will include information needed for issuance of State water quality certifications pursuant to section 401 and NPDES permits pursuant to section 402, including where applicable section 316(b) considerations regarding best technology available to be applied to cooling water intake structures and section 316(a) determinations regarding the granting of alternative effluent limitations for the thermal component of discharges; and information needed to evaluate the environmental impacts of the facility based on compliance with FWPCA requirements.

4. Where a facility specified in section 3 of this Memorandum is a new source (as defined under Section 306 of the FWPCA) and EPA is the permit issuing authority, EPA has a responsibility to comply with section 102 (2)(C) of NEPA. EPA and NRC intend that a single environmental impact statement will be prepared for the facility and that NRC will be the lead agency for preparation of such a statement as provided in § 15007(b) of the CEQ guidelines for Preparation of Environmental Impact Statements (August 1, 1973).

(a) EPA will participate in the preparation of the water quality and related sections of the draft statement prepared by NRC staff. EPA may provide assistance to the NRC staff in areas (other than water quality) where EPA has jurisdiction or expertise.

(b) During the draft statement comment period, EPA will review and comment pursuant to section 309 of the Clean Air Act, as amended and § 15007(b) of the CEQ Guidelines for Preparation of Environmental Impact Statements (August 1, 1973) on the draft environmental impact statement prepared by NRC staff. EPA will participate with NRC in the review of comments on the draft EIS and in the preparation of the final EIS.

(c) Where there are areas of disagreement that cannot be resolved prior to issuance of the final statement, both NRC's and EPA's views shall be accurately set forth in the final statement.

(d) It is expected that where EPA does not agree with any of the discussions, analyses and conclusions of the NRC staff as set forth in the final environmental impact statement, EPA may petition for leave to intervene pursuant to 10 CFR 2716 in any proceeding pending before an NRC atomic safety and licensing board on the license or permit application at issue in order to have its opposing views considered further on their merits. . . . 5C.

(e) In any hearing held by EPA pursuant to 40 CFR 125.35 regarding the issuance of a permit under Section 401, only those issues concerning matters within EPA's regulatory jurisdiction will be considered, and those NEPA issues outside of EPA's regulatory jurisdiction will be resolved in the NRC impact statement and, if necessary, hearing process.

5. NRC will take the lead in communicating to the applicant those minimum NRC and EPA requirements for information to facilitate their respective environmental evaluations. Requests for additional information, as needed in specific situations, may be directed to the applicant by EPA. Such requests will be coordinated with NRC to the maximum extent practicable in order to avoid duplication of effort.

6. EPA and NRC will meet, as appropriate, at an early date prior to and/or during the environmental review process for each facility or plant specified in Section 3 of this Memorandum to discuss potential impacts on water quality and biota.

7. EPA will exercise its best efforts to evaluate the areas of discharge and impacts on water quality and biota pursuant to sections 401 and 316(a), as appropriate, and complete cooling water intake structure evaluations pursuant to section 316(b) as far as possible in advance of the planned date of issuance by NRC of the final environmental impact statement for the construction permit or operating license for each nuclear power reactor. EPA also will cooperate in best efforts to share such evaluations

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as far as possible in advance of the planned date of issuance of the final environmental impact statement for any other plant or facility specified in section 2 of this Memorandum of Understanding or early site approval agreements with nuclear power and other facilities.

Further, where possible, EPA's comments on NRC's draft environmental impact statement for each such facility or plant will reflect such evaluations. EPA will, if necessary, undertake to revise existing NPDES regulations in order to establish a procedure for issuance to the appropriate State or NRC, where appropriate in light of the substantive requirements of section 401, of a certificate of discharge and permit as soon as possible prior to the planned date of authorization by the NRC of any commencement of construction or issuance by NRC of a license or early site approval, whichever is applicable.

Such permits will contain appropriate limits and conditions for all discharges of pollutants expected during the life of the permit (five years maximum) and terms and conditions with regard to cooling water intake structure and section 316(b) discharge limitations concerning thermal discharges. Additional permit terms and conditions for discharges not contemplated during the life of the permit (such as certain chemical and other releases not expected until operation startup) may be derived from applicable State water quality standards and applicable new source performance standards contained in 40 CFR Chapter I, Subchapter M. Permits may be renewed, or modified as appropriate, and any renewed or modified permit to be effective at the commencement of actual discharge as provided above may require additional limitations and conditions based on data gathered during the initial permit or they require additional section 316(a) and 316(b) studies for the purpose of confirming conclusions reached from previous predictive studies. Applications for permit renewal as provided above will be evaluated by EPA in light of a policy to assure to the maximum extent possible that subsequent considerations regarding impacts on water quality and biota will not result in the need for significant changes in plant design or in the cost and benefits of the operation of the facility subsequent to the completion of NRC's environmental review.

2. EPA will work closely with NRC in coordination with NRC's efforts with State and regional authorities to assure that water quality certifications pursuant to section 401 for the facilities specified in section 2 that require such certification are issued in advance of the planned date of issuance of NRC staff's final environmental impact statement for the facility. Where needed, EPA also will work closely with NRC in connection with NRC's efforts with State and regional authorities to assure that discharge permits pursuant to section 402 for facilities specified in section 2 are issued as soon as possible prior to the planned date of authorization by NRC of any commencement of construction or issuance by NRC of a license or early site approval, whichever is applicable.

3. It is the view of the parties that the States which have approved NPDES permit programs have authority to establish a procedure similar to the early permit issuance process¹ described in Paragraph 7 hereof.

¹NRC strongly encourages States which do not have such authority to institute an

¹The term "commencement of construction" means commencement of construction as defined in 10 CFR 20.41(w), 20.41(b), 20.10 (c) or 20.41(e), as applicable.

²A facility which has been given section 316(a) alternative effluent limitations is not entitled to the 10-year grace period (or applicable amortization period) provided for in section 306(a) for new sources or in 316 (c) for modified sources.

early issuance procedure in order to meet its initial discharge and intake structure determinations and other discharge obligations during the life of the permit and to cooperate with EPA and NRC in implementing this procedure.

10. EPA and NRC will maintain close contact on water quality and related matters during the entire environmental review process.

11. Open inter-agency communications and mutual cooperation and coordination on all relevant water quality matters.

12. A status meeting, where appropriate after completion of the public comment period on NRC staff's final environmental impact statement, and

13. Notification to the other Agency by the Agency first becoming aware of the situation at any point during the environmental review of subsequent receipt of any significant new considerations that develop e.g. a major change in plant design or the identification of significant considerations regarding impacts on water quality or biota that were not previously evaluated as may result from a major change in plant design.

14. EPA and NRC will consider the feasibility of holding combined or concurrent hearings on EPA's section 401 permits and NRC's construction permits and other actions on a case-by-case basis if there are areas involving impacts on water quality or biota where there are significant differences of opinion between NRC and EPA. Every reasonable attempt will be made to identify and resolve these differences prior to the planned date of issuance of NRC's final environmental statement.

15. The principal NRC contact under this Memorandum of Understanding shall be the Assistant Director for Environmental Projects. The principal EPA contact under this Memorandum of Understanding shall be the Assistant Administrator for Enforcement, and/or the Regional Administrator or his designee as appropriate.

16. Nothing in this Memorandum of Understanding is intended to restrict the statutory authority of either Agency. The Memorandum of Understanding regarding NRC-Licensed Facilities and dated August 21 and 27, 1973 (38 FR 24216) shall remain in effect in accordance with its terms.

17. This Memorandum of Understanding shall take effect on January 30, 1974 after the signing by authorized representatives of the respective Agencies and approval by the Council on Environmental Quality. The Memorandum shall apply to all pending and future applications for licenses or permits covered by paragraphs 1 and 2 except that, with respect to applications for licenses or permits for facilities and plants docketed prior to the effective date of this Memorandum, Paragraphs 2 through 4 shall only be applied to the maximum extent practicable. This Memorandum of Understanding and Appendix A hereto supersedes the Memorandum of Understanding Regarding Implementation of Certain Complementary Responsibilities Under the FWPCA and dated January 18, 1973 and 22, 1973 (38 FR 2718) and amended Interim Policy Statement (38 FR 2879).

Dated at Washington, D.C. this 17th day of December 1973.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Law F. Condon,
Executive Director for Operations

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Stanley W. Lamm,
Assistant Administrator
for Enforcement

APPROVED BY THE COUNCIL ON ENVIRONMENTAL QUALITY FOR THE COUNCIL

Gary Winkler,
General Counsel

APPENDIX A—PERMIT STATEMENT ON IMPLEMENTATION OF SECTION 401 OF THE FEDERAL WATER POLLUTION CONTROL ACT (FWPCA)

1. **Applicability.** This statement and Paragraph 1 of the Memorandum shall apply to all licensing proceedings subject to 10 CFR Part 51, involving facilities or activities which may result in the discharge of a pollutant into the navigable waters as defined in section 302(1)(A) of the FWPCA.

2. **Definition of Terms.** As used in this statement, a "Limitation or other requirement promulgated or imposed pursuant to the FWPCA" means effluent limitations or other requirements promulgated or imposed pursuant to sections 301(a), 301(b), 301(c), 301(d), 301(e), 301(f), 301(g), 301(h), 301(i), 301(j), 301(k), 301(l), 301(m), 301(n), 301(o), 301(p), 301(q), 301(r), 301(s), 301(t), 301(u), 301(v), 301(w), 301(x), 301(y), 301(z), 302(a), 302(b), 302(c), 302(d), 302(e), 302(f), 302(g), 302(h), 302(i), 302(j), 302(k), 302(l), 302(m), 302(n), 302(o), 302(p), 302(q), 302(r), 302(s), 302(t), 302(u), 302(v), 302(w), 302(x), 302(y), 302(z), 303(a), 303(b), 303(c), 303(d), 303(e), 303(f), 303(g), 303(h), 303(i), 303(j), 303(k), 303(l), 303(m), 303(n), 303(o), 303(p), 303(q), 303(r), 303(s), 303(t), 303(u), 303(v), 303(w), 303(x), 303(y), 303(z), 304(a), 304(b), 304(c), 304(d), 304(e), 304(f), 304(g), 304(h), 304(i), 304(j), 304(k), 304(l), 304(m), 304(n), 304(o), 304(p), 304(q), 304(r), 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MEMORANDA OF UNDERSTANDING

shall be NRC consent to NEPA (1) if and to the extent that conditions imposed as a part of the license or permit for the facility of activity pursuant to sections 501(b) or section 501(a)(2) of the FWPCA require that a particular alternative be adopted, or (2) if and to the extent that a permit or other condition with a condition requiring the adoption of a particular alternative has been issued for the facility or activity pursuant to sections 502(b)(1)(C)(i) and 502(b)(2)(B), 518, 502 or 504 of the FWPCA.

4. Alternative pollutant discharge effluent will not be considered by NRC pursuant to NEPA where effluent limitations have been imposed on the facility or activity under sections 501(c) or 502 of the FWPCA.

5. Neither alternative sites nor activities nor alternative systems will be considered by NRC pursuant to NEPA if and to the extent that a determination made with respect to the facility or activity under sections 502(b)(2)(C)(i) and 502(b)(5)(B) of the FWPCA requires as a condition that a particular site, facility or activity or system be adopted.

6. NRC will not require adoption of an alternative pursuant to NEPA in order to address impacts on water quality and biota that are subject to limitations or other requirements promulgated or imposed pursuant to the FWPCA.

7. Cost-Benefit Analysis. In evaluating the costs and benefits of a proposed action pursuant to NEPA, NRC will evaluate impacts on water quality and biota notwithstanding that such impacts are subject to limitations or other requirements promulgated or imposed pursuant to the FWPCA.

8. Certifications. A certification issued pursuant to section 21(b) of the FWPCA in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972 will be accepted as satisfying the certification requirements of FWPCA section 401(a) with respect to NRC licensing actions after that date subject to section 401(a) if the certification otherwise remains in effect.

9. More Stringent Requirements--Transition Period. The NRC may include limitations or requirements in the license or permit that are more stringent than limitations or requirements promulgated or imposed pursuant to the FWPCA where such limitations or requirements are proposed by the licensee or permit applicant in a licensing proceeding in which the applicant's license or permit application at issue and environmental report had been filed prior to enactment of the FWPCA.

10. Effect of section 518(a). Whenever there are limitations or other requirements promulgated or imposed pursuant to the FWPCA with respect to discharge of heated effluent but a request pursuant to section 518(a) has been or may be filed and no limitations pursuant to section 518(a) have yet been imposed, the other limitations or other requirements respecting discharges of heated effluent shall be regarded as encompassing only the most stringent limitations or other requirements that might be promulgated or imposed pursuant to the FWPCA in implementing Paragraph 3.

11. Effect on Part 51. To the extent that there is a conflict between any of the provisions of this statement of policy and the provisions of 10 CFR Part 51, the provisions of this statement shall govern.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF ENVIRONMENTAL QUALITY

DECEMBER 17, 1978

DEAR MR. GOSWICK AND MR. LEROY: The Council on Environmental Quality is pleased to approve the Second Memorandum of Understanding Regarding Implementation of Certain NRC and EPA Responsibilities. The memorandum provides for the coordination

and integration of NEPA review concerning licensing of certain nuclear facilities. Such coordination is a goal which the Council supports and encourages in CEQ's Guidelines.

Recognizing that the agreement is limited to states where EPA is the permit-issuing authority, the Council nevertheless wishes to clarify its interpretation of a sentence in Paragraph 4 of the Memorandum in order to avoid any misunderstanding of the Council's position. Paragraph 4 provides, *inter alia*, where a facility specified in section 2 of the Memorandum is a new source (as defined under section 506 of the FWPCA) and EPA is the permit-issuing authority, EPA has a responsibility to comply with section 102(2)(C) of NEPA.

The Council agrees with this statement. However, to the extent the sentence may suggest that NEPA does not apply to EPA if EPA has approved a state permit program pursuant to section 402(b) of the FWPCA, the Council believes that such a suggestion is legally inaccurate. After reviewing the applicable provisions of the FWPCA and NEPA, their legislative histories and relevant case law, CEQ believes that EPA has sufficient authority over permits in states with approved programs to establish responsibility for its own compliance with Section 102(2)(C) of NEPA.

Sincerely,

GARY L. WIDMAN
General Counsel

MR. LEO V. GOSWICK
Executive Director for Operations, Nuclear
Regulatory Commission

MR. BRADLEY W. LEROY
Assistant Administrator for Enforcement,
Environmental Protection Agency
GARY WIDMAN, Esquire, General Counsel,
Council on Environmental Quality, 722
Jackson Place NW, Washington, D.C.

DECEMBER 17, 1978

DEAR MR. WIDMAN: The purpose of this letter is to confirm our mutual understanding of the purpose and intent of paragraph 4.5 of the policy statement set forth as Appendix A to the Second Memorandum of Understanding Regarding Implementation of Certain NRC and EPA Responsibilities.

The paragraph reflects the constraint on NRC's authority under NEPA imposed by section 511(e)(2) of the FWPCA. The paragraph limits the authority of NRC under NEPA to review and evaluate alternative sites where a State or EPA, acting under section 506(b)(5)(C)(i) of the FWPCA, establishes and implements in the particular case a regulatory program which includes review and analysis of sites and which is essentially equivalent in its scope and depth of review of environmental factors and alternatives to that required of Federal agencies, such as NRC, under NEPA.

NRC is not relieved of its responsibility to review and evaluate alternative sites under NEPA to the extent that the State or EPA review program under section 506(b)(5)(C)(i) is narrower in scope or depth of review of environmental factors than required of Federal agencies by NEPA. For example, if environmental impacts of transmission lines or if land use impacts were not considered, NRC would consider such impacts in its review of the application.

Sincerely,

LEO V. GOSWICK
Executive Director for Operations

41 FR 3615
Published 1/23/78

FEDERAL WATER POLLUTION CONTROL
ACT AMENDMENTS OF 1972

Second Memorandum of Understanding
and Policy Statement Regarding Imple-
mentation of Certain NRC and EPA Re-
sponsibilities

Correction

In FR Doc. 78-26138 appearing on page 60115 in the issue for Wednesday, December 21, 1978, make the following changes:

44 FR 3783
Published 1/18/79

HEALTH EFFECTS RESEARCH

Memorandum of Understanding

Pursuant to Pub. L. 95-601, the Nuclear Regulatory Commission and the Environmental Protection Agency have executed a Memorandum of Understanding delineating respective agency responsibilities in the conduct of epidemiological planning studies to investigate the health risks associated with low-level ionizing radiation. The text of the memorandum is set forth below.

Dated at Washington, D.C., this 17th day of January 1979.

For the Nuclear Regulatory Commission

SAMUEL J. CYRIL
Secretary of the Commission

NRC/EPA MEMORANDUM OF UNDERSTANDING
CONCERNING EPIDEMIOLOGICAL RESEARCH
ON THE HEALTH EFFECTS OF LOW-LEVEL IONIZING RADIATION

The Nuclear Regulatory Commission (NRC) and the Environmental Protection Agency (EPA) have complementary responsibilities in areas of environmental protection and the control of radiation health hazards. Pursuant to Reorganization Plan No. 2 of 1976, all functions of the former Federal Radiation Council and the authority of the former Atomic Energy Commission (AEC) for setting "generally applicable environmental radiation standards" were transferred to EPA. In addition, under other environmental statutes EPA has authority to establish various specific environmental standards for radiation protection of the public. The Nuclear Regulatory Commission was created by the Energy Reorganization Act of 1974 to continue AEC for ensuring activities of the former AEC for ensuring, among other things, the protection of public health and safety from commercial use of atomic byproduct and special nuclear materials. The NRC also has responsibility for implementing Federal guidance prepared by EPA and approved by the President which pertains to NRC licensed activities and responsibility for enforcing "generally applicable environmental radiation standards" issued by EPA.

The Congress of the United States has authorized and directed NRC and EPA to (1) conduct preliminary planning and design studies for epidemiological research on the health effects of low-level ionizing radiation; (2) submit to Congress by April 1, 1979 an assessment of their capabilities and needs in the area of health effects of ionizing radiation research; and (3) submit a report to Congress by September 30, 1979, which includes a study of options for Federal epidemiological research on the health