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MAY 7 1968

Honorable Walter F. Mondale
United States Senate

Dear Senator Mondale:

Your memorandum of March 11, 1968, to Office of Congressional Liaison, Atomic Energy Commission, concerning a telegram you received from Mr. Leonard W. Levine, dated February 24, 1968, has been referred to me. I am enclosing a brief report which describes our regulatory review procedure and the radiological effects to the environs expected as a result of operation of the Monticello Nuclear Generating Plant.

In our review of the proposed Monticello Nuclear Generating Plant, all items relevant to radiological releases to the environs were considered in detail by the regulatory staff and were found to be in accordance with the limits set forth in the Commission's regulations, 10 CFR Part 20. It should also be noted that under present law the Commission is vested with exclusive responsibility to regulate radiological health and safety matters, including the establishment of limits on radiological releases, in connection with the issuance of licenses to construct and operate nuclear power plants.

In addition to the booklet, "Licensing of Power Reactors," which is referenced in the attached report, I am also enclosing a copy of "Atomic Power Safety," which describes the operation of the typical water cooled and moderated nuclear power plants. If you believe these booklets would be useful to your constituents, I would be glad to furnish copies in quantity.

Sincerely yours,

(signed) Harold L. Price

Harold L. Price
Director of Regulation

Enclosures:

1. Report
2. "Licensing of Power Reactors"
3. "Atomic Power Safety"
4. Telegram from L. W. Levine

RETYPE IN THE OFFICE OF THE DIR. OF REGULATION TO REMOVE REFERENCE TO THERMAL EFFECTS. See attached yellow for concurrences. Distribution attached.

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DATE ▶	4/23/68	4/26/68	4/26/68	4/26/68	<i>5/2/68</i>	<i>mjm</i>

Honorable Walter F. Mondale

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The substantive regulatory jurisdiction of the Atomic Energy Commission, under present law, is limited essentially to matters of radiological health and safety and the common defense and security, and we now lack authority to impose restrictions regarding thermal effects of discharges from licensed nuclear facilities. In this regard, in our review of the proposed Monticello Nuclear Generating Plant, all items relevant to radiological releases to the environs were considered in detail by the regulatory staff and were found to be in accordance with the limits set forth in the Commission's regulations, 10 CFR Part 20. It should also be noted that under present law the Commission is vested with exclusive responsibility to regulate radiological health and safety matters, including the establishment of limits on radiological releases, in connection with the issuance of licenses to construct and operate nuclear power plants.

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DATE ▶	4/23/68	4/26/68	4/26/68	4/26/68	4/___/68

RADIOLOGICAL EFFECTS OF OPERATING
THE MONTICELLO NUCLEAR GENERATING PLANT

The application by Northern States Power Company for a permit to construct the Monticello plant was reviewed from the standpoint of radiological safety by four bodies in the AEC's process of licensing and regulation, as outlined in the enclosed booklet, "Licensing of Power Reactors." These review groups included the AEC regulatory staff, the Commission's statutory Advisory Committee on Reactor Safeguards (ACRS), and an atomic safety and licensing board which conducted a public hearing in the matter on May 28, 1967, at Buffalo, Minnesota. The initial decision of the board, granting a provisional construction permit, was then reviewed by the Commission itself. The construction permit was issued on June 19, 1967. Each of these review bodies concluded that the proposed plant could be constructed and operated without undue risk to the health and safety of the public.

When the applicant completes the plant and applies for an operating license, further safety reviews will be conducted by the AEC regulatory staff and the ACRS. Thereafter, if an operating license is granted, the plant will be under AEC surveillance and undergo periodic safety inspections throughout its lifetime.

During routine operation, very small amounts of radioactive materials generated in the nuclear processes may be released into the environment at controlled rates and in controlled amounts from a nuclear power plant. This requires a continuous program of monitoring and control to insure that permissible limits are not exceeded. The allowable limits in AEC regulations are based on guides developed by the Federal Radiation Council, a statutory body, and issued by the President for the guidance of Federal agencies. These permissible limits are such that continuous use at the point of release from the site would not result in exposures exceeding national and international standards for radiation protection of the public. Permissible exposure limits reflected in these standards are well below the level where biological damage has been observed in humans. It is believed that any biological effects that might be produced at such low exposures would be too infrequent, in comparison with the occurrence of similar effects from natural causes, to be observed by epidemiological or other techniques presently available. Thus, the risk to individuals exposed at such levels is so low as to be negligible in comparison with observable risks from natural and other causes.

The concentrations of liquid radioactive effluents released from the plant are further reduced by dilution in the body of water to which they are discharged. A recent survey of all fourteen operating nuclear power plants has shown that the concentrations of radioactivity in liquid releases during 1967 were only a small fraction of the permissible limits applicable to the radionuclides in the effluent.

In the case of the Monticello plant, the AEC's evaluations concluded that the design and operation of the radiological waste disposal system would preclude harmful effects on the water supplies of Minneapolis and St. Paul, the nearest communities using the Mississippi River for potable water.