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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

PDR

APR 26 1968

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Honorable Walter F. Mondale
United States Senate
Washington, D. C. 20002

Dear Senator Mondale:

Your memorandum of March 25, 1968, to Office of Congressional Liaison, Atomic Energy Commission, concerning a letter you received from Mrs. John Wegler, dated March 2, 1968, has been referred to me. To aid you in preparing a reply to this letter, 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 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.

You may wish to note that an identical letter from Mrs. Wegler has been referred to me for reply by Honorable Joseph E. Karth's office.

Sincerely yours,

(signed) Harold L. Price

Harold L. Price
Director of Regulation

Enclosures:
1. Report
2. "Licensing of Power Reactors"
3. "Atomic Power Safety"

OGC BS 4/25/68

bcc: EAGM AGMO SECY (2) RD&T
AGMR OCR, H St.(2) DOS OGC (2)

DRL:RPB-1	OGC	DRL:RP	DRL	REG
DRMuller/eb		RSBoyd	PAMorris	HLPrice
4/12/68	4/17/68	4/18/68	4/22/68	4/25/68

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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.

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ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

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REG Reading
DRL Reading
RPB-1Read'
Suppl.
AEC Pub.Do
Formal Doc

APR 26 1968

Honorable Walter F. Mondale
United States Senate
Washington, D. C.

Dear Senator Mondale:

Your memorandum of March 26, 1968, to Office of Congressional Liaison, Atomic Energy Commission, concerning a letter you received from Mrs. Martin Bruhl, dated February 16, 1968, has been referred to me. To aid you in preparing a reply to this letter, 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.

With reference to Mrs. Bruhl's statement concerning the additive effects of a number of nuclear power plants along the Mississippi River, each discharging small amounts of radioactive waste, the Atomic Energy Commission, in its review of the radiological impact of nuclear power plants on the environs, does consider such additive effects to assure that radioactive effluent release limits enumerated in the Commission's regulations, 10 CFR Part 20, are not exceeded.

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Harold L. Price
Director of Regulation

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3. "Atomic Power Safety"

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OCR 4/25

DRL:RPB-1	OGC	DRL:RL	DRL	REG
DRMuller/eb		RSBoyd	PAMorris	HLPrice
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