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JAN 7 1968

50-263

Honorable Walter F. Mondale
United States Senate

Dear Senator Mondale:

Your memorandum of May 6, 1968 to Office of Congressional Liaison, Atomic Energy Commission, concerning a letter you received from Mrs. Henry H. Cowie, dated April 9, 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.

RPS

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.

A similar letter from Mrs. Henry H. Cowie has been referred to me from Representative Joseph E. Karth.

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. Ltr. fr. Mrs. Cowie, 4/9/68

bcc: EAGM
AGMO
PROD
OCR H ST.

DOS
L. Rogers
5/21/68

OFFICE ▶	DRL:RPB-1	DRL:RK	DRL	OGC	REG DR	OGC
SURNAME ▶	DRMuller/eb	RSBoyd	PAMorris	<i>HLPrice</i>	<i>HLPrice</i>	<i>OGC</i>
DATE ▶	5/21/68	5/27/68	5/27/68	5/27/68	6/15/68	6/15/68

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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.

Small amounts of radioactive material are permitted by AEC regulations to 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 assure that permissible limits are not exceeded. The permissible 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 of air or water 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 radioactive 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. Nevertheless, during our review of the proposed Monticello plant, we considered consequences to the Minneapolis and St. Paul water supplies of accidental releases of radioactive material to the Mississippi River even though we found no evident way that such a release could occur.

It is extremely unlikely that an accidental release of large quantities of radioactive material from the Monticello plant into the river would occur. However, if such a release were to occur, the radioactive material would travel downstream with the river current and sufficient time would be available to close the intakes for the Minneapolis and St. Paul water systems before the radioactive material reached them. If such action were necessary, the reserve supplies of water available in the reservoirs of the two cities would be sufficient to maintain full water supplies to the cities until such time as the radiation contamination has passed the intakes. When the applicant applies for an operating license, the procedures to be followed, and the instruments required to monitor any radioactive release, will be reviewed in detail to further assure that the citizens of Minneapolis and St. Paul as well as other communities which use the Mississippi for potable water will not be adversely affected.

FROM

Sen. Walter F. Mondale (Minn)

CONTROL NUMBER

1716

ACTION COMPLETION DEADLINE

5/15/68

DATE OF DOCUMENT

5/6/68

LOCATION

TO

OCR

ACTION PROCESSING DATES

Acknowledged

Interim Report

Final

INFORMATIONAL COPY DISTRIBUTION

Chairman	ADNS	COM
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Dep. Dir.	OGC	SLR
A. D.	RL	ML

DESCRIPTION

ltr

☒ Original☐ Copy☐ Other

Ltr to Mrs. Henry Cowie re release of radioactive discharges into the Mississippi River from the Monticello plant

REMARKS

Note Mondale's instructions; ltr to be from Mr. Price to Mrs. Cowie and should go to OCR for dispatch at same time we send them ltr to Rep. Kasten (DE-1691)

Q: 70438

REFERRED TO

DATE

Morris f/section

5/9/68

Cys: HPrice

Beck

Hann

Henderson

Doan

Shepar

DO NOT DETACH THIS COPY

DIRECTOR OF REGULATION
COMMUNICATIONS CONTROLForm HQ-32 (7-64)
U. S. AEC

mailed 6-7-68

DATE: May 6, 1968

United States Senate

RE: Mrs. Henry Cowie
911 Fairmount
Saint Paul
Minnesota 55101

Respectfully referred to

Congressional Liaison
Atomic Energy Commission
Washington, D. C.

.....
For your consideration of the attached
letter, and for a report.

☐ To be forwarded directly to the
constituent, with a copy to me
for my information and records.

☒ To me, in duplicate to accompany
return of enclosure.

☐ As requested below.

Additional comments:

1968

5/20-- D.R.Muller telephoned Mr. Avery. It is
agreeable w/Mr. Avery that our reply be addressed
to Senator Mondale rather than the constituent.

RPB-1, DRL, AEC

Please refer response to attention of

Gary Avery, of my staff,

on the outside of the envelope only.

Thank you.

WALTER F. MONDALE
U.S. SENATE

9-Monticello ^{post}
Henry H. Cowie

April 9.

~~APR 11 1960~~

Dear Senator Mondale,

I am writing you to
express my concern over the
proposed permit for the flushing
of radioactive wastes into the
Mississippi river by the MSP
power plant at Monticello,
Minn.

Both Dr. Charles Hauer
and Dr. Maxine Usscher
of the University of Minn.
state that radioactive
discharge from the plant
will raise the level of
radioactivity in the drinking
water of the twin cities

2
Henry H. Cowie

higher than the maximum required by the World Health Organization standards. Surely it would be inexcusable to allow this.

In case of an accident in the power plant it is possible to shut the steam water supply off at Hickey but the would not safeguard Haps which has no alternative supply.

It is feared that numerous reports from radioactive dust discharges into the Columbia river have begun to be noticed

Henry H. Cowie

These cumulative ecological
buildups should be
thoroughly understood before
the Mississippi is allowed
to become further polluted.

Thank you

Wm. Henry Cowie

DATE: May 6, 1968

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C-3

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