

FEB 17 1969

50-263

Mr. John P. Badalich
Executive Director
Minnesota Pollution Control Agency
459 Board of Health Building
University Campus
Minneapolis, Minnesota 55440

Dear Mr. Badalich:

Thank you for your letter of December 20, 1968. As regards the additional questions contained in your recent letter and its attachment, some further comments may be helpful.

The distance from dense population centers of nuclear power generating stations now under construction or in operation ranges from a few miles up to forty miles or more. None of them are located in metropolitan centers, but other reactors may be eventually. All of the plants, regardless of their location, are required by statute and the Commission's regulations to be designed, constructed and operated so as not to endanger the health and safety of the public. An extensive discussion of siting considerations is contained in the enclosed report of the Congressional Joint Committee on Atomic Energy Hearings on the Licensing and Regulation of Nuclear Reactors held in April and May 1967.

Approximately half of Mr. Gadler's second list of questions relates to his concern about routine releases of radioactivity into the Mississippi River and into the air during operation of the Monticello plant. Since a major part of the information transmitted with my earlier letter to you dated November 19, 1968 was devoted to this subject in response to about half of Mr. Gadler's first list of questions, I will not try to repeat what was in that transmittal which should serve to answer the environmental

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Mr. John P. Badalich

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release questions in the second list as well as the first. In summary, such environmental releases are restricted under Part 20 of the Commission's regulations to quantities which are not likely to result in exposures to members of the general public exceeding the limits recommended by the National Council on Radiation Protection and Measurements, the International Commission on Radiological Protection and the Federal Radiation Council.

The remaining questions in Mr. Gadler's second list are directed to accident situations and the emergency procedures for notifying various authorities in the event that major releases of radioactivity into the environment should occur. This was also discussed at some length in my previous transmittal. While it is not possible to rule out such accidents on an absolute basis, the safeguards built into the plant design are so extensive as to make it extremely unlikely that any dangerous amount of radioactivity would be released offsite even in the event of credible accidents inside the containment structure. Emergency procedures to cope with unlikely substantial radioactive releases offsite, including notification of appropriate public officials, are required to be developed by all licensees prior to the start of nuclear power plant operations. Such procedures will be included in the final safety analysis report prepared by Northern States Power Company and reviewed for adequacy by the staff and the Advisory Committee on Reactor Safeguards prior to granting a license to operate the Monticello plant. This report will be a part of the public record, and a copy will be placed in the Commission's Public Document Room when completed.

Distribution:

HLPrice	PAMorris	Sincerely yours,
CKBeck	FWestern	
MMann	HShapar	(signed) Harold L. Price
CLHenderson	GERTter (DR-1969)	
RLDoan	PDR	Harold L. Price Director of Regulation
EGCase	JFouchard, DPI	

Enclosure:

Print of ICAE Hearings on Licensing

OFFICE	and Regulation	AD/SP	DR		
SURNAME		RLDoan:vh:aw:vh	HLPrice		
DATE		2/14/69	2/17/69		

Mr. John P. Badalich

- 2 -

release questions in the second list as well as the first. In summary, such environmental releases are restricted under Part 20 of the Commission's regulations to quantities too small to be dangerous to the health and safety of the public. Records of the releases will be required to be kept by the Monticello plant, and should be available to your Agency on request.

The remaining questions in Mr. Gadler's second list are directed to accident situations and the emergency procedures for notifying various authorities in the event that major releases of radioactivity into the environment should occur. This was also discussed at some length in my previous transmittal. While it is not possible to rule out such accidents on an absolute basis, the safeguards built into the plant design are so extensive as to make it extremely unlikely that any dangerous amount of radioactivity would be released offsite even in the event of credible accidents inside the containment structure. Emergency procedures to cope with unlikely substantial radioactive releases offsite, including notification of appropriate public officials, are required to be developed by all licensees prior to the start of nuclear power plant operations. Such procedures will be included in the final safety analysis report prepared by Northern States Power Company and reviewed for adequacy by the Staff and the Advisory committee on Reactor Safeguards prior to granting a license to operate the Monticello plant. This report will be a part of the public record, and a copy will be placed in the Commission's Public Document Room when completed.

Distribution:

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Sincerely yours,

Harold L. Price
Director of Regulation

Enclosure:
Print of JCAE Hearings on Licensing
and Regulation

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DATE ▶	2/11/69	2/ /69			

FROM

State of Minnesota
Minnesota Pollution Control Agency
John P. Redalich

CONTROL NUMBER

1969

ACTION COMPLETION DEADLINE

DATE OF DOCUMENT

12/20/68

FILE LOCATION

TO

Harold L. Price

ACTION PROCESSING DATES

Acknowledged _____

Interim Report _____

Final 2/13/69

INFORMATIONAL COPY DISTRIBUTION

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REMARKS

Asking why the Monticello nuclear power reactor was located 40 miles upstream from the Minneapolis-St. Paul Metropolitan Area & trans 27 questions raised by Mr. Steve Sedler re CONTAMINATION OF ST. PAUL-MINNEAPOLIS AND SUDBURY WATER SUPPLY BY MONTICELLO AND RLE RIVER ATOMIC REACTORS

Prepare reply for the signature of the Director of Regulation

*Draft reply to
HLP 1/4*

REFERRED TO

DATE

Boan f/action
Cys: ~~alfrice~~

12/24/68

Beck

Kenn

Henderson

Boan

Shapar

Morris

Case

Western



DR-1969

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STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY
459 BOARD OF HEALTH BUILDING
UNIVERSITY CAMPUS
MINNEAPOLIS
55440

December 20, 1968

Mr. Harold L. Price
Director of Regulations
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Price:

I wish to acknowledge receipt of your letters dated November 19, 1968, regarding 1) information as to a gaseous diffusion plant in Minnesota, and 2) response to my letter of September 3, 1968, regarding various questions submitted by Mr. Steve J. Gadler, with attachments.

Your comments and that of your staff are greatly appreciated and are now being reviewed by members of the Agency, our staff, and also our consultant on radioactivity.

Since the original submission to you of some 80 questions posed by Mr. Gadler, he has drafted an additional 27 questions that bear consideration by the Atomic Energy Commission. I have enclosed a copy of these questions signed by Mr. Gadler and again ask that these be answered in his behalf and as a matter of information to our Agency.

One further question I neglected to ask you at the outset, and for your comment, was a statement that was made by the Congressional Joint Committee on Atomic Energy in the congressional report under date of February 1968, that states: "Until experience is gained and adequate safeguards are proved out, prudence dictates that large reactor installations be fairly far removed from population centers."

If this is true, why, then, was the Monticello nuclear power reactor located only forty miles upstream from the Minneapolis-St. Paul Metropolitan Area, having a population of approximately two million people, and the water supply for in excess of one million people? Would you please clarify for us the statement as it appeared and is quoted in the Congressional Record?

DR-1969

Rec'd Off. Dir. of Reg.

Date 12/24/68Time 9:20

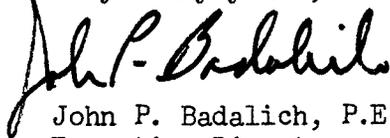
Mr. Harold L. Price
Washington, D. C.

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12/20/1968

Again I wish to express my appreciation to you and others of the AEC staff for your cooperation in providing the information requested in the past, and I trust that the above request for additional information and answers will be forthcoming in the very near future.

Very truly yours,

A handwritten signature in cursive script that reads "John P. Badalich". The signature is written in dark ink and is positioned above the printed name and title.

John P. Badalich, P.E.
Executive Director

JPB:mmmb
Enclosure

CONTAMINATION OF ST. PAUL - MINNEAPOLIS AND SUBURBAN WATER SUPPLIES BY
MONTICELLO AND ELK RIVER ATOMIC REACTORS

- 69. J. G. Keller*
1. What are the types and amounts of radioactive pollutants that will be discharged into the Mississippi River by the Monticello reactor per day? Per year?
 2. In the event of a serious atomic accident that would contaminate the Mississippi River with radioactive pollutants will AEC provide the Twin Cities water for drinking and industrial purposes?
 3. If not, why did the AEC approve NSP a permit at Monticello?
 4. Is an emergency water supply for the St. Paul and Minneapolis water systems in existing U.S. Atomic Energy Commission plans if the river is contaminated with radioactive pollutants?
 5. Has ^a ~~any~~ probable atomic accident at the Monticello reactor that would prevent utilizing Mississippi River water by St. Paul and Minneapolis been discussed with concerned public water officials?
 6. In the event of the emergency in (4) above how will industries dependent upon the Mississippi water stay in operation?
 7. In the event of an atomic or other accident at the Monticello reactor that would pollute the Mississippi River water for all down-river users especially the St. Paul - Minneapolis residents who will pay for the added water costs if an emergency source of water becomes available?
 8. Since the health and safety of the public which includes integrity of the St. Paul - Minneapolis water supplies is a responsibility of the Atomic Energy Commission both by law and its own regulations, how will the Atomic Energy Commission prevent the pollution of the Mississippi River with radioactive pollutants which are a million to a billion times more toxic than any chemical known to man?
 9. Since the Atomic Energy Commission has permitted the construction of the Monticello reactor above the St. Paul and Minneapolis water intakes on the Mississippi River will the Atomic Energy Commission carry out the intent of the congress and prevent the discharging of radioactive materials into the river thereby providing for the health and safety of the down-river residents.
 10. What type of communication networks are to be provided in case of the inevitable atomic accident at the Monticello atomic reactor which would destroy St. Paul - Minneapolis water supplies?
 11. What are the present plans or arrangement for alerting St. Paul - Minneapolis water officials of an accidental discharge of radioactive materials into the Mississippi River at Monticello?

*Page 1 of 3
11 Questions #27
By J. G. Keller*

12. Since the Atomic Energy Commission is responsible for the "health and safety" how will they prevent sabotage of the 250,000 gallon radioactive water retention tanks at Monticello?
13. In the event of sabotage or accidental bursting of the 250,000 gallon radioactive water retention tanks who will advise St. Paul water officials about the accident.
14. Who will advise St. Paul and Minneapolis public officials of the serious radioactive contamination of the river?
15. Who will determine the amount and type of radioactive materials discharged into the river? Who advises who, when and by what means?
16. Since semantics plays such a large role in nuclear literature and terminology and the Atomic Energy Commission refers to serious atomic accidents as incidents or occurrences, is it possible to withhold information affecting the safety and health of people by reporting an atomic accident at Monticello as an incident?
17. Since it is incumbent upon the operation of any atomic facility with this state to make full and complete disclosures concerning types and amounts of radioactive materials to be discharged into the environment, how does NSP intend to provide the information and to whom?
18. Does NSP intend to dilute radioactive materials for discharge into the Mississippi River at the same ratio used by the U.S. Atomic Energy Commission's reactor at Elk River?
19. Does dilution of these radioactive toxic materials that NSP desires to discharge into the St. Paul - Minneapolis water supplies reduce their dangers to the drinking populace?
20. Since dilution of these cumulative types of radiation does not reduce their irreversible characteristics, how can the NSP or the Atomic Energy Commission protect the public health and safety since the populace will be drinking radio active water?
21. What will be saving to the NSP stockholders in KWH produced by the Monticello atomic reactor thru the discharging into the environment and thereby polluting St. Paul and Minneapolis, instead of out-state shipment for burial and perpetual Atomic Energy Commission care?
22. Since radioactive nuclides or radioactive materials are all subject to a law of nature that the rate of physical decay natural to each cannot be altered to make them less radioactive regardless of the amount of dilution or dispersion or def~~usion~~usion, how does the Atomic Energy Commission propose to preserve the environment and prevent the radioactive pollution of the St. Paul - Minneapolis water supplies?
23. Since the Mississippi River is the source of water for St. Paul and Minneapolis and others down-river, why does NSP desire to discharge radioactive wastes into the river?

Page 2 of 3
12 Jan 1954

24. Since all radiation regardless of the dose is cumulative and irreversible and since the radioactive waste from the atomic reactor at Monticello if discharged into the river will increase substantially, the radioactive dosages to the St. Paul and Minneapolis water users why does NSP want to use the Mississippi River for radioactive waste disposal?

25. Since a long series of small radioactive insults to the human body may accumulate to produce long-delayed serious injury why has the U.S. Atomic Energy Commission affirmed and approved the Monticello atomic reactor that wants to discharge radioactive pollutants into the river and the atmosphere thereby increasing the dosages to down-river residents with its routes of water and atmospheric disposal?

26. Since the most tempting and most economical radioactive disposal route for the Monticello reactor is the Mississippi River, what assurances will the MPCA and down-river water users that NSP is not "riding the river"?

27. Since the U.S. Atomic Energy Commission is not concerned with the integrity of the St. Paul and Minneapolis water supplies, what right do they have to pollute these waters?

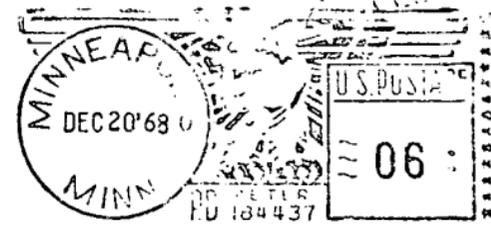
Thomas J. Kelly
Member Minnesota
Pollution Control Agency

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U.S. ATOMIC ENERGY COMM.
WASHINGTON, D.C.
MAIL & RECORDS SECTION

STATE OF MINNESOTA
MINNESOTA POLLUTION CONTROL AGENCY
MINNESOTA DEPARTMENT OF HEALTH BUILDING
UNIVERSITY CAMPUS
MINNEAPOLIS, MINN. 55440



Mr. Harold L. Price
Director of Regulations
U. S. Atomic Energy Commission
Washington, D. C. 20545