

NOV 23 1970

Honorable Edmund S. Muskie
Chairman, Subcommittee on
Intergovernmental Relations
Committee on Government Operations
United States Senate

Dear Senator Muskie:

I understand that Chairman Seaborg has responded to your letter of September 17, 1970, with reference to the testimony of Mr. John Badalich, Executive Director, Minnesota Pollution Control Agency. At the Chairman's request I am pleased to provide the substantive answers to the questions posed in your letter.

The Commission's policy pertaining to the locating of nuclear facilities with respect to the proximity of public water intakes is contained in the Commission's regulations, 10 CFR Parts 50 and 100 (copies enclosed). Part 50, Section 50.34 requires an applicant to describe and give a safety assessment of the site on which the facility will be constructed, including as a minimum the site evaluation factors identified in Part 100. One of these factors is the hydrological characteristics of the site [§100.10(c)(3)]. Our specific procedure in reviewing the Elk River and Monticello sites, as well as any other site, has been to determine the location of all domestic water supplies such as rivers, lakes, wells, and reservoirs which are in the vicinity of the proposed plant and which may be affected by the proposed operation. Then on an individual basis we evaluate the influence of effluent releases from the plant on the sources of water.

The manner in which we handled this specific problem relative to the location of the Minneapolis-St. Paul water intakes downstream of the Monticello plant exemplifies this procedure. Our evaluation of this problem is given on pages 32 to 37 of the Safety Evaluation (copy enclosed) prepared by the Division of Reactor Licensing as a part of the review of the safety of the Monticello plant. In this evaluation we considered the design of the liquid waste disposal systems, the location of the Monticello plant relative to the Minneapolis and St. Paul water intakes, the characteristics of the Mississippi River in this area, and potential levels of radioactive releases, both accidental and routine, from the plant. Our evaluation concluded that postulated releases from the Monticello plant would not endanger the health and safety of the citizens residing in the Minneapolis-St. Paul metropolitan area.

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Honorable Edmund S. Muskie

- 2 -

As to your more general question of the distance of reactor sites from urban areas such as the Minneapolis-St. Paul metropolitan area, 10 CFR Part 100, §100.11 (copy enclosed) of the Commission's regulations provides guidance relative to this question. The attached excerpt from AEC staff responses to concerns stated by persons making limited appearances in the public hearing on the Monticello facility briefly explains the application of 10 CFR Part 100 in our review of the Monticello facility.

If I can be of any further assistance to you in responding to these questions, please let me know.

Sincerely,

Harold L. Price
Director of Regulation

Enclosures:

- 1. 10 CFR Part 50
- 2. 10 CFR Part 100
- 3. Monticello Safety Evaluation (OL)
- 4. Excerpt

REVISED IN OFFICE OF DIRECTOR OF REGULATION TO REVISE PARAGRAPHS 2 & 3, PAGE 1, AND INCLUDE §100.11, FIRST FULL PARAGRAPH PAGE 2, THIRD LINE. SEE ATTACHED YELLOW FOR PREVIOUS CONCURRENCES

Distribution:

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DRL

P.A. Morris
11/20/70

OFFICE ▶	DRL:PWR	DRL:PWR-1	OGC	DIR:DR	OCR
SURNAME ▶	Brown, Smith CL Henderson:ps	Det for DMuller	See attached yellow	CKB/vv HLPrice	Boyle concurred by phone
DATE ▶	11/13/70	10/19/70	10/20/70	11/20/70	11/20/70

MR. KNOTTS: In the statement made by the City of St. Paul (St. Paul Statement Page 18) a question was raised as to the placement of nuclear power plants in relation to population centers. The statement went on further to raise a question as to why the provisions of 10CFR 100.11 (a)(3) shouldn't be read as requiring the siting of nuclear reactors even further away from population centers such as the Twin City metropolitan area. Mr. Vassallo would you please comment?

MR. VASSALLO: Part 100 is the Commission's regulation on reactor site criteria. First, I would like to note, that the provisions of 10CFR 100.11 (a)(3), which deals with establishing population center distances is dependent on subsections (a)(2) of 10CFR 100.11. Subsection 100.11 (a)(2) deals with establishing low population zones.

As discussed in the AEC regulatory staff's Safety Evaluation, the low population zone distance is one mile which meets the guidelines of 10CFR 100.11 (a)(2) as shown on page 44 of the Safety Evaluation. Since the low population zone distance satisfies the provisions of 10CFR 100.11 (a)(2), this distance is used directly to determine the population center distance in accordance with 10 CFR 100.11(a)(3), which states, "A population center distance of at least one and one-third times the distance from the reactor to the outer boundary of the low population zone. In applying this guide, due consideration should be given to the population distribution within the population center. Where very large cities are involved, a greater distance may be necessary because of total integrated population dose consideration." This means that for the Monticello site the required population center distance would have to be at least one and one-third miles from the reactor. As defined in 10 CFR 100.3, "Population center distance means the distance from the reactor to the nearest boundary

Attached excerpt is a response provided by the AEC regulatory staff to limited appearance statements made by representatives of the City of St. Paul in the Matter of Northern States Power Company (Monticello Nuclear Generating Plant, Unit 1), Docket No. 50-263. The attached was provided for the record (Inserted following Transcript page 2029) during the August 7, 1970 session of the public hearing in the subject matter.

of a densely populated center containing more than about 25,000 residents." There is no such population center one and one-third miles from the reactor. St. Cloud with a population of approximately 33,000 is 22 miles from the site. The distance of the Twin City metropolitan area is approximately 30 miles from the site, and meets the requirements of 10 CFR 100.11 (a)(3).

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Honorable Edmund S. Muskie
Chairman, Subcommittee on
Intergovernmental Relations
Committee on Government Operations
United States Senate

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I understand that Chairman Seaborg has responded to your letter of September 17, 1970, with reference to the testimony of Mr. John Badalich, Executive Director, Minnesota Pollution Control Agency. At the Chairman's request I am pleased to provide the substantive answers to the questions posed in your letter.

The Commission has no published regulation or criterion which states specific policy relative to locating nuclear facilities in the vicinity of intakes of municipal or other domestic water supplies. Thus, in the course of our review and approval of the Elk River and Monticello sites, to which Mr. Badalich refers, no policy was set aside.

Our procedure to date in this regard has been to determine the location of all domestic water supplies such as rivers, lakes, wells, and reservoirs which are in the vicinity of the proposed plant and which may be affected by the proposed operation. Then on an individual basis we evaluate the influence of effluent releases from the plant on the sources of water.

The manner in which we handled this specific problem relative to the location of the Minneapolis-St. Paul water intakes downstream of the Monticello Plant exemplifies this procedure. Our evaluation of this problem is given on Pages 32 to 37 of the Safety Evaluation (copy enclosed) prepared by the Division of Reactor Licensing as a part

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Honorable Edmund S. Muskie

- 2 -

of the review of the safety of the Monticello Plant. In this evaluation we considered the design of the liquid waste disposal system, the location of the Monticello Plant relative to the Minneapolis and St. Paul water intakes, the characteristics of the Mississippi River in this area, and potential levels of radioactive releases, both accidental and routine, from the plant. Our evaluation concluded that postulated releases from the Monticello Plant would not endanger the health and safety of the citizens residing in the Minneapolis-St. Paul metropolitan area.

As to your more general question of the distance of reactor sites from urban areas such as the Minneapolis-St. Paul metropolitan area, 10 CFR Part 100 (copy enclosed) of the Commission's Regulations provides guidance relative to this question. The attached excerpt from AEC staff responses to concerns stated by persons making limited appearances in the public hearing on the Monticello facility briefly explains the application of 10 CFR Part 100 in our review of the Monticello facility.

§100.11

If I can be of any further assistance to you in responding to these questions, please let me know.

Sincerely,

Harold L. Price
Director of Regulation

Enclosures:

- 1. Safety Evaluation
- 2. AEC Regulations 10 CFR Part 100
- 3. Excerpt

Distribution:

AEC PDR
 Docket File
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~~Commissioner Ramey~~
~~Commissioner Johnson~~
~~Commissioner Thompson~~
~~Commissioner Larson~~
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(RETYPE AT THE REQUEST OF DR.MORRIS)

Pls see attached yellow for previous concurrences

OFFICE ▶	DRL:PWR	DRL:PWR-1	OGC 5	DR	OCR
SURNAME ▶	x7401 Brown/pjf	Muller	<i>[Signature]</i>	HLPrice	
DATE ▶	10/19/70	10/19/70	10/28/70	10/ /70	10/ /70

Honorable Edmund S. Muskie
Chairman, Subcommittee on
Intergovernmental Relations
Committee on Government Operations
United States Senate

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If I can be of any further assistance to you in responding to these questions, please let me know.

Sincerely,

Harold L. Price
Director of Regulation

Enclosures:

- 1. Safety Evaluation
- 2. AEC Regulations 10 CFR Part 100

Distribution:

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 Docket File
 DR Reading bcc:Chairman Seaborg (2)
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BSchur, OGC (RETYPED AT THE REQUEST OF OGC)

OCR (2)

GERttr

Pls see attached yellow for previous concurrences

OFFICE ▶	DRL:PWR x7401	DRL:PWR-1	OGC	DR	DR	OCR
SURNAME ▶	Brown/pjf	Muller	Histo	W Morris	Price	
DATE ▶	10/16/70	10/17/70	10/19/70	10/19/70	10/ /70	10/ /70

~~SECRET~~

(new second-last paragraph for letter to Muskie)

As to ^{your} the more general question of the distance of reactor sites from
Minneapolis-St. Paul metropolitan area, 10 CFR Part 100
urban areas such as the Twin Cities, the attached excerpt from AEC

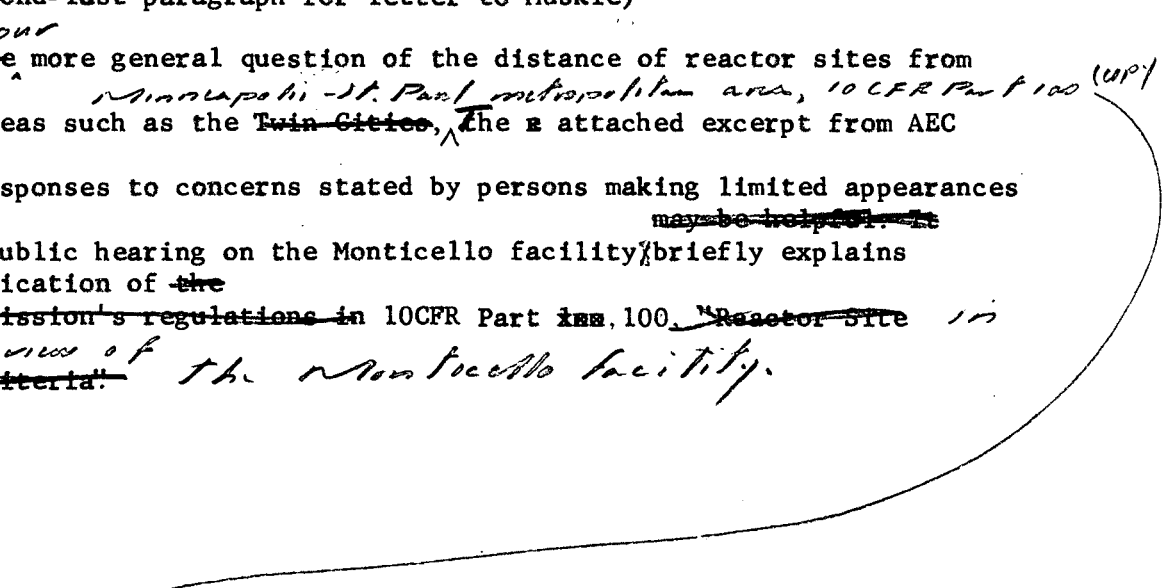
(copy enclosed)

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~~may be helpful. It~~

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application of ~~the~~

the/Commission's regulations in 10CFR Part ~~100~~, 100. ~~Reactor Site~~ ^{is}

~~our review of the Monticello facility.~~
~~Site Criteria~~



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If I can be of any further assistance to you in responding to these questions, please let me know.

Cordially,

~~Chairman~~ HLP

Enclosure:

- 1. Safety Evaluation
- 2. 10 CFR PART 100 of the ~~Commission's Regulation~~

AEC

Honorable Edmund S. Muskie
Chairman, Subcommittee on
Intergovernmental Relations
Committee on Government Operations
United States Senate

Dear Senator Muskie:

I am pleased to respond to the questions posed in your letter of September 17, 1970, with reference to the testimony of Mr. John Badalich, Executive Director, Minnesota Pollution Control Agency.

The Commission has no published regulation or criterion which states specific policy relative to locating nuclear facilities in the vicinity of intakes of municipal or other domestic water supplies. Thus, in the course of our review and approval of the Elk River and Monticello sites, to which Mr. Badalich refers, no policy was set aside.

Our procedure to date in this regard has been to determine the location of all domestic water supplies such as rivers, lakes, wells, and reservoirs which are in the vicinity of the proposed plant and which may be affected by the proposed operation. Then on an individual basis we evaluate effluent releases from the plant to assure that the influence of the plant on the sources of water is acceptable.

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DATE ▶						

Honorable Edmund S. Muskie - 2 -

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If I can be of any further assistance to you in responding to these questions, please let me know.

Cordially,

Chairman

Enclosure:
Safety Evaluation

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(Retyped at the request of Dr. Morris)

bcc: Chairman Seaborg (2)
Commissioner Ramey
Commissioner Larson
Commissioner Johnson
Commissioner Thompson
Secretariat (2)

OFFICE ▶	DRL:PWR	DRL:PWR	DRL	OGC	DR	OCR
SURNAME ▶	x7401- <i>Blunt</i>	Muller/ DeYoung	Morris		Price	
DATE ▶	10/5/70	10/6/70	10/6/70	10/ /70	10/ /70	10/ /70

Honorable Edmund S. Muskie
Chairman, Subcommittee on
Intergovernmental Relations
Committee on Government Operations
United States Senate

Dear Senator Muskie:

I am pleased to respond to the questions posed in your letter of September 17, 1970, with reference to the testimony of Mr. John Badalich, Executive Director, Minnesota Pollution Control Agency. Our replies to your questions follow:

1. Does the Commission have a specific policy in regard to the location of power facilities above water intakes?

The Commission has no published regulation or criterion which states specific policy relative to locating nuclear facilities in the vicinity of water intakes.

2. Did the Commission set aside such a policy in the instances referred to by Mr. Badalich?
(These concerned the experimental 25 megawatt plant at Elk River, and the 550 megawatt plant referred to as the Monticello facility.)

No such policy, either stated or implied, was set aside in regard to our approval of the Elk River and Monticello Plant sites. Nevertheless, Mr. Badalich will recall that the location of the Minneapolis-St. Paul municipal intakes were the subject of a detailed evaluation by the AEC Regulatory Staff to assure that the health and safety of the citizens of the Twin City area would not be endangered.

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- 3. If the Commission did set aside such a policy as a deliberate decision, what procedures were taken to consider the issues involved in setting aside that policy?

As I noted above, we did not set aside any stated or implied policy. For all plants which are situated on lakes or rivers in the United States, the evaluation of the safety of the plant assures that the health and safety of the public which uses the water would not be endangered.

If I can be of further assistance to you in responding to these questions, please let me know.

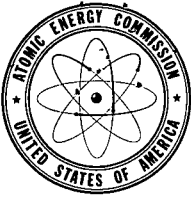
Cordially,

Chairman

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bcc: Chairman Seaborg (2)
 Commissioner Ramey
 Commissioner Johnson
 Commissioner Thompson
 Commissioner Larson
 Secretariat (2)

OFFICE ▶	RL:PWR	RL:PWR	RL	OGC	DR	OCR
SURNAME ▶	x7411 Blunt:lm	Miller DeYoung	Morris		Price	
DATE ▶	9/24/70	9/24/70 9/24/70	9/ /70	/ /70	/ /70	/ /70



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

Honorable Edmund S. Muskie
Chairman, Subcommittee on
Intergovernmental Relations
Committee on Government Operations
United States Senate

Dear Senator Muskie:

I understand that Chairman Seaborg has responded to your letter.
~~At Chairman's Secretary's request~~
I am pleased to respond to the questions posed in your letter of September 17, 1970, with reference to the testimony of Mr. John Badalich, Executive Director, Minnesota Pollution Control Agency.

At the Chairman's request I am pleased to provide the substantive answers to the questions.
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