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Docket No. 50-263

JUN 3 1971

Mr. Grant J. Merritt
 Executive Director, State of
 Minnesota Pollution Control Agency
 717 Delaware Street, S.E.
 Minneapolis, Minnesota 55440

Dear Mr. Merritt:

This is in response to your May 19, 1971 request for information regarding emergency core cooling systems and the Monticello Nuclear Power Plant. As noted in my May 19, 1971 letter to Mr. Kenneth Dzugan, and following my phone conversation with him, copies of the November, 1970-March, 1971 Monthly Reports of the Nuclear Safety Program Division of the Idaho Nuclear Corporation have been transmitted to Mr. Dzugan. These reports concern the recent blow-down tests conducted in the semi-scale experiment at the National Reactor Testing Site in Idaho, which have to do with performance of emergency core cooling systems (ECCS).

I am enclosing answers to your numbered questions as prepared by the Division of Reactor Licensing. In addition, I am also enclosing a copy of the Commission's statement regarding the current AEC Regulatory Staff review of recently developed information on emergency core cooling systems for nuclear power plants. You will note that the review of this recent information is not regarded as the type of problem requiring the shutdown of operating nuclear power plants.

I will be glad to send you the conclusions of this review when complete.

Sincerely,

Joseph E. Knotts, Jr.

Copy sent PDR
 DPI
 H 70
 6/3/71
 25

OFFICE ▶	DRL	OGC	Joseph E. Knotts, Jr. Attorney	
SURNAME ▶	Morris: th	Knotts	Office of the General Counsel	
DATE ▶	6/2/71	6/3/71		

Enclosures:
As stated

ANSWERS TO QUESTIONS RAISED BY MR. GRANT J. MERRITT

1. Are there presently any operating licensed pressurized water reactors using ECCS?

Yes. Some examples of presently operating licensed pressurized water reactors using ECCS are the Rochester Gas and Electric Company's Ginna plant, the Carolina Power and Light Company's H. B. Robinson Unit 2 and the Wisconsin Electric Power Company's Point Beach Unit 1.

2. Have any tests of ECCS been made for boiling water reactors under operating conditions? If so, please provide details.

Yes. Numerous tests of many kinds have been conducted regarding emergency core cooling systems and their performance under a wide variety of experimental conditions, including those postulated to occur at the time of a loss-of-coolant accident, for boiling water reactors as well as for pressurized water reactors. Details of these experiments and tests are voluminous. They have been carried out over many years and are described in many Idaho Nuclear Corporation, General Electric, Westinghouse and other reports. References may be found in Nuclear Science Abstracts and useful summaries are provided from time to time in the Commission's publication, "Nuclear Safety".

3. What is the applicability of the recent ECCS tests to boiling water reactors such as the one at Monticello, Minnesota, operated by Northern States Power Company?

I assume your reference is to the semi-scale blow-down tests recently conducted in Idaho, which are described in the reports I have sent to Mr. Dzigan. These tests have almost no applicability to boiling water reactors such as the one at Monticello, Minnesota.

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Mr. Grant J. Merritt
Executive Director, State of
Minnesota Pollution Control Agency
717 Delaware Street, S.E.
Minneapolis, Minnesota 55440

Dear Mr. Merritt:

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I am enclosing answers to your numbered questions as prepared by the Division of Reactor Licensing. (insert)

If I can be of further assistance, please let me know.

Sincerely,

Joseph B. Knotts, Jr.
Attorney
Office of the General
Counsel

Enclosure:

Answers to Questions

OFFICE ▶	DRL	OGC	DR			
SURNAME ▶	PAMorris	JBK				
DATE ▶	5/28/71	5/28/71				

Docket No. 50-263

Mr. Grant J. Merritt
Executive Director, State of
Minnesota Pollution Control Agency
717 Delaware Street, S.E.
Minneapolis, Minnesota 55440

Dear Mr. Merritt:

This is in response to your May 19, 1971 request for information regarding emergency core cooling systems and the Monticello Nuclear Power Plant. As noted in my May 19, 1971 letter to Mr. Kenneth Dzugan, and following my phone conversation with him, copies of the November, 1970-March, 1971 Monthly Reports of the Nuclear Safety Program Division of the Idaho Nuclear Corporation have been transmitted to Mr. Dzugan. These reports concern the recent blow-down tests conducted in the semi-scale experiment at the National Reactor Testing Site in Idaho, which have to do with performance of emergency core cooling systems (ECCS).

In answer to your numbered questions:

1. Are there presently any operating licensed pressurized water reactors using ECCS?

Yes. Some examples of presently operating licensed pressurized water reactors using ECCS are the Rochester Gas and Electric Company's Ginna plant, the Carolina Power and Light Company's H. B. Robinson Unit 2 and the Wisconsin Electric Power Company's Point Beach Unit 1.

OFFICE ▶						
SURNAME ▶						
DATE ▶						

- 2. Have any tests of ECCS been made for boiling water reactors under operating conditions? If so, please provide details.

Yes. Numerous tests of many kinds have been conducted regarding emergency core cooling systems and their performance under a wide variety of experimental conditions, including those postulated to occur at the time of a loss-of-coolant accident, for boiling water reactors as well as for pressurized water reactors. Details of these experiments and tests are voluminous. They have been carried out over many years and are described in many Idaho Nuclear Corporation, General Electric, Westinghouse and other reports. References may be found in Nuclear Science Abstracts and useful summaries are provided from time to time in the Commission's publication, "Nuclear Safety".

- 3. What is the applicability of the recent ECCS tests to boiling water reactors such as the one at Monticello, Minnesota, operated by Northern States Power Company?

I assume your reference is to the semi-scale blow-down tests recently conducted in Idaho, which are described in the reports I have sent to Mr. Dzugan. These tests have no applicability to boiling water reactors such as the one at Monticello, Minnesota.

If I can be of further assistance, please let me know.

Sincerely,

Joseph B. Knotts, Jr.
 Attorney
 Office of the General
 Counsel

Distribution:

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DRL Reading	OGC
HLPrice	GERtter
CKBeck	PAMorris
MMMann	

OFFICE ▶	DRL <i>MM</i>					
SURNAME ▶	PAMorris:th					
DATE ▶	5/28/71					

FROM
Minnesota Pollution Control Agency
Grant J. Merritt, Exec. Dir.

CONTROL NUMBER
3409

ACTION COMPLETION DEADLINE

DATE OF DOCUMENT
5/19/71

LOCATION

TO
Joseph Knotts

ACTION PROCESSING DATES
 Acknowledged _____
 Interim Report _____
 Final *6/1/71*

INFORMATIONAL COPY DISTRIBUTION
 _____ Chairman _____ ADNS _____ COM
 _____ GM _____ ADA _____ SS
 _____ Dep. Dir. _____ OGC _____ SLR
 _____ A. D. _____ RL _____ ML

DESCRIPTION Original Copy Other

Requests answers to questions listed concerning Emergency Core Cooling Systems

REMARKS

Is notification to the JCAE recommended?

REFERRED TO	DATE
Merritt i/action	5/24/71
Cys: Wrice Shaper	
Down	
Mann	
Henderson	
Case	

5/21/71

Sir, please,

Joe Knotts would like
your approval on this letter (OK)
and your designation of some-
one to respond to the questions
in Mr. Merritt's letter.

P.A.M.

~~SAH~~ cyk

May 19, 1971

Mr. Kenneth Dugan
Research Scientist
Minnesota Pollution Control
Agency
Oak and Delaware Streets, S. E.
Minneapolis, Minnesota 55440

Dear Ken:

Pursuant to your request, enclosed are copies of the
November 1970 - March 1971 Monthly Reports of the
Nuclear Safety Program Division of Idaho Nuclear
Corporation.

It was good to hear from you again.

Sincerely,

Joseph B. Knotts, Jr.
Attorney
Office of the General
Counsel

Enclosures:
5 Reports

AIR MAIL

OCC

OCC

JBKnotts/jls TFEgelhardt
5-19-71 5-19-71

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**STATE OF MINNESOTA
POLLUTION CONTROL AGENCY**

717 DELAWARE STREET S.E.
(OAK AND DELAWARE STREETS S.E.)
MINNEAPOLIS 55440
612-378-1320

Grant J. Merritt

~~JOHN R. BORCHERT, P.E.~~
EXECUTIVE DIRECTOR

May 19, 1971

AIR MAIL
SPECIAL DELIVERY

Mr. Joseph Knotts
Counsel for AEC Regulatory Staff
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Knotts:

This is a request for information which we were told would be forthcoming in a telephone conversation with Mr. Kenneth Dzugan of our staff on May 19, 1971.

Please send us all reports concerning recent Idaho tests of Emergency Care Cooling Systems (ECCS). We also request answers to the following questions:

1. Are there presently any operating licensed pressurized water reactors using ECCS? yes
2. Have any tests of ECCS been made for boiling water reactors under operating conditions? If so, please provide details. yes
3. What is the applicability of the recent ECCS tests to boiling water reactors such as the one at Monticello, Minnesota, operated by Northern States Power Company? none

I hope the information will be made available as quickly as possible.

Thank you for your help.

Sincerely yours,

Grant J. Merritt
Grant J. Merritt
Executive Director

*Knotts
signature
saying reports
sent.*

Rec'd Off. Dir. of Reg.
Date 5/24/71
Time 11:10

GJM:KD:mcs

DR 3409