

9/7/78

September 7, 1978

Robert M. Lazo, Esq., Chairman
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dr. Richard F. Cole
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dr. Walter H. Jordan
881 West Outer Drive
Oak Ridge, TN 37830

In the Matter of
Northern States Power Company
(Monticello Nuclear Generating Plant, Unit 1)
Docket No. 50-263

Gentlemen:

This will follow up on our letter to you of August 7, 1978, advising of experiences of cracking in recirculation riser pipes in foreign BWRs. Enclosure 1 addresses an experience of cracking in a larger diameter pipe (main recirculation pipe). As noted in the memorandum, we are continuing to review this information to assess its significance for domestic operating BWRs. Pending completion of this review, the Staff is relying upon the capability of the inservice inspection program required by technical specifications for operating BWRs (including Monticello) to identify any such cracks before they become a safety problem (see Enclosure 2).

Sincerely,

Stephen H. Lewis
Counsel for NRC Staff

Enclosures

1. Memorandum from Stello to Mattson, Subject: Operating Reactors Experience Memoranda No. 23, Update--Pipe Cracks In Large Diameter BWR Piping Systems, dated August 29, 1978.
2. Memorandum from Hazelton to Ippolito, Subject: Relevance of Pipe Crack In A Foreign Reactor to the Monticello Pipe Crack Issue.

cc w/encl: See Page Two

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Gerald Charnoff, Esq.
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Mr. Steve J. Gadler
Jocelyn F. Olson, Esq.
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Atomic Safety and Licensing Board Panel
Atomic Safety and Licensing Appeal Board
Docketing and Service Section

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

AUG 29 1978

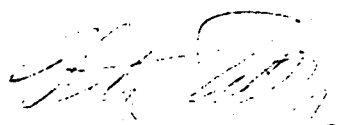
Encl. 1

MEMORANDUM FOR: R. Mattson, Director, Division of System Safety
FROM: Victor Stello, Jr., Director, Division of Operating Reactors
SUBJECT: OPERATING REACTORS EXPERIENCE MEMORANDA NO. 23, UPDATE
PIPE CRACKS IN LARGE DIAMETER BWR PIPING SYSTEMS

By memorandum dated March 31, 1978, we advised you of a potentially significant incident of safe end cracking and pipe cracking in a foreign operating reactor. We met with representatives from the foreign country on August 22, 1978 and reviewed the results of the pipe crack investigations. We also received copies of four classified reports (confidential) which address this problem. We have concluded, based upon this recent information, that the occurrence of large diameter piping cracks is noteworthy. Further details are as follows:

1. The affected Unit is a dual cycle BWR. The piping involved is nominal 25" O.D. stainless steel similar to type 304.
2. Cracking has been observed in the heat affected zone in the piping and cracking has been found at various locations in the safe ends.
3. All cracks originated from the ID and were comparatively shallow (< 5 mm depth in pipe and <10 mm depth in safe ends). Some cracks were extensive in length (600 mm in safe ends and 480 mm in pipe).
4. The cracks were found by visual examination of the inside surfaces after removal of the safe ends with a small piece of attached piping.

We are continuing to review this information to assess its significance with respect to US operating plants. We will provide copies of the translated documents as soon as they are available.


Victor Stello, Jr., Director
Division of Operating Reactors

cc: See attached sheet

Encl. 2



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MEMORANDUM FOR: Thomas A. Ippolito, Chief, ORB #3, DOR
FROM: Warren Hazelton, Section Leader, Engineering Branch
SUBJECT: RELEVANCE OF PIPE CRACK IN A FOREIGN REACTOR TO THE
MONTICELLO PIPE CRACK ISSUE

Since issuance of NUREG 0313 in July, 1977, shallow cracks have been found in a large diameter main recirculation pipe of a foreign reactor. The Staff is continuing to review information on this to assess its significance for domestic operating BWR's.

The present Staff position is that the augmented pipe inspection/surveillance program, described in NUREG 0313 and required by Technical Specifications for operating BWR's (including Monticello), will identify any such pipe cracks before they become a safety problem. It should be noted that these inspection/surveillance programs have not to date identified any such cracks in large piping in any domestic plants.

Furthermore, it is the staff's opinion that very shallow cracks, such as those discovered in the foreign reactor, have no significant effect on the overall safety of the plant.

A handwritten signature in cursive script, appearing to read "W. Hazelton".

Warren Hazelton, Section Leader
Engineering Branch
Division of Operating Reactors