



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

D. Vassallo

AUG 14 1978

MEMORANDUM FOR: Brian K. Grimes, Assistant Director for Engineering & Projects, DOR
 Darrell G. Eisenhut, Assistant Director for Systems & Projects, DOR
 Domenic B. Vassallo, Assistant Director for Light Water Reactors, DPM

FROM: Victor Stello, Jr., Director, Division of Operating Reactors, NRR

SUBJECT: B&W REACTOR VESSEL WELD MATERIAL DEVIATING FROM SPECIFICATIONS

We were informed on August 4, 1978, that a chemical analysis of a specimen of reactor vessel weld material fabricated by B&W indicated that the silicon and nickel content differed from that specified. It is possible that some of this weld material may have been used in 12 vessels. The NRC and B&W are investigating this potential problem expeditiously and hope to be able to resolve it. Seven vessels are in B&W NSSS plants, three in W plants and two in GE plants. The enclosed letter should be sent to the B&W, W and GE NSSS licensees or applicant as soon as possible:

- | | |
|------------------------|---------------|
| *Three Mile Island 1/2 | Oconee 3 |
| Crystal River 3 | Rancho Seco 1 |
| Arkansas 1 | Midland 1 |
| Browns Ferry 1 | Turkey Point |
| Quad Cities 2 | Zion 1/2 |

The purpose of these letters is to ensure the timely use of conservative interim heatup and cooldown curves until the licensees or applicant can perform a more detailed analysis of the effects of the use or potential use of the improper weld material in the subject vessels.

The lead technical reviewer is Warren Hazelton, Engineering Branch, DOR (x28060); Mort Fairtile, Operating Reactors Branch #4, DOR (x27435) is the lead project manager.

*DOR will transmit a letter addressed to Met Ed for both units.

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The potential reactor vessel material specification deviation is "relevant and material new information" in regard to the requirements for informing Licensing and Appeal Boards per NRR Office Letter No. 19 of July 6, 1978. We understand that Midland 1 and TMI-2, both in LWR#4, DPM, have a need for Board notification. The remaining licensees, all assigned to DOR, do not have any sitting Boards at this time. The letter to the Midland 1 licensee may be altered to suit specific needs.

Original signed by

Victor Stello, Jr., Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation

Enclosure: As stated

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SEE PREVIOUS YELLOW FOR ADDITIONAL CONCURRENCES

OFFICE	AD:S&P:DOR	D:DOR			
SURNAME	DE [Signature]	VStello			
DATE	8/14/78	8/14/78			

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The lead technical reviewer is Warren Hazelton, Engineering Branch, DOR (x28060); Hort Fairtile, Operating Reactors Branch #4, DOR (x27436) is the lead project manager and he will coordinate any needed contacts with the nuclear steam system suppliers.

The reactor vessel material specification deviation is "relevant and material new information" in regard to the requirements for informing Licensing and Appeal Boards per NRR Office Letter No. 19 of July 6, 1978. We understand that Midland 1 and TH-2, both in LWR#4, DOR, have a need for Board notification. The remaining licensees, all assigned to DOR, do not have any sitting Boards at this time.

Original signed by:

Victor Stello, Jr., Director
Division of Operating Reactors
Office of Nuclear Reactor Regulation

Enclosures:

- A. Sample Ltr. for E&P NSSS Licensees or Applicant
- B. Sample Ltr. for W or CE Licensees

cc w/enclosures: See next page

~~C-ORB#4: DOR~~
ASchwencer
8/10/78

~~C-ORB#4: DOR~~
Tippolito
8/11/78

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WRF

OFFICE	ORB#4: DOR	EB: DOR	C-ORB#4: DOR	AD-ESP: DOR	AD-ESP: DOR	D: DOR
SURNAME	MFairtile:rm	WHazelton	RReid	BGrimes	DEisenbut	VStello
DATE	8/10/78	8/10/78	8/10/78	8/11/78	8/11/78	8/11/78

AUG 14 1978

cc: Central File
NRR Reading
ORB Reading
EB Reading
OI&E (3)
V. Noonan
R. Reid
M. Fairtile
W. Hazelton
R. Klecker
J. P. Knight

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

Docket No.:

AUG 14 1978

ADDRESSEES

Gentlemen:

RE: REACTOR VESSEL ATYPICAL WELD MATERIAL

This letter confirms our telephone conversation with your staff of August 14, 1978.

The NRC was advised by Babcock & Wilcox (B&W) on August 4, 1978, that a chemical analysis of an archive weldment performed as part of the program for evaluation of reactor vessel material properties indicated that the nickel and silicon content of the weld material were outside the specified range. It has been determined that the weld filler wire used for that particular weld was atypical.

As of this date, it is not known whether or not this atypical weld wire was used in the manufacture of your reactor vessel. Therefore, we request that you provide the following information to us by Friday, August 18, 1978 (a telecopy of your response is adequate):

1. What interim measures, such as revised pressure/temperature limits, you are taking to ensure reactor vessel integrity in the event that the atypical weld wire was used,
2. Your assessment as to the continued safe operation of your facility based on these interim measures, and
3. Your commitment that these measures will continue in force pending the resolution of this issue.

Your submittal should be three signed originals plus 37 additional copies.

Sincerely,

Branch Chief

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