

July 21, 1989

MEMORANDUM FOR: Robert Licciardo, Reactor Engineer
Plant Systems Branch, DEST
FROM: Frank J. Miraglia, Associate Director
for Inspection and Technical Assessment
SUBJECT: DPV CONCERNING CONTAINMENT ISOLATION VALVES AT ZION
(TAC 73427) - STATUS INFORMATION

This is to acknowledge that on July 20, 1989, I received the information requested by my June 30, 1989 memorandum. Based on the receipt of this information, the Standing Review Panel (E. Rossi, F. Congel and myself) can continue its review of your concerns. The Panel expects to complete this review within 30 days, as provided for in Manual Chapter (MC) 4125 (see page 2, item 7 of the enclosure to MC 4125 entitled "Procedures for the Expression and Disposition of Differing Professional Views and Opinions," which is attached to NRR Office Letter No. 300, Revision 1 dated March 24, 1989).

Pursuant to MC 4125, the Director, NRR, is expected to make a final disposition of the issue within seven days of the Panel's decision.

By copy of this memorandum NRR is notifying the EDO of the status of the Differing Professional View that you filed on May 11, 1989. The enclosed chronology documents the status to date.

Original signed by
Frank J. Miraglia

Frank J. Miraglia, Associate Director
for Inspection and Technical Assessment

Enclosure:
Chronology

cc w/encl:
V. Stello, EDO
J. Blaha, AO, EDO
T. Murley
J. Sniezek
F. Gillespie
E. Rossi
F. Congel
J. Partlow
G. Holahan
A. Thadani
C. Patel
C. McCracken

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ADM RF (2)
HSmith
VWilson
JLarkins
FMiraglia

CONTACT:
H. Smith, PMAS
x21287

*See previous concurrence

[DPV]

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IFC : PMSB:NRR	: ADT: NRR	:	:	:	:	:	:
NAME : *HSmith	: FMiraglia	:	:	:	:	:	:
DATE : 07/20/89	: 07/21/89	:	:	:	:	:	:

CHRONOLOGY

Robert Licciardo

DPV Concerning Containment Isolation Valves at Zion

<u>Date</u>	<u>Description</u>
5/11/89	Memorandum from R. Licciardo to T. Murley, subject: <u>Differing Professional View (DPV) Concerning (a) Issuance of SER to Zion 1 and 2 allowing fuel-power operation with open 42" containment isolation valves; (b) methodology used for calculating related offsite doses.</u>
5/18/89	Memorandum from T. Murley to R. Licciardo acknowledging that on May 12, 1989, the Director's Office received his DPV dated May 11, 1989. Note that this memorandum also requests a listing of persons Mr. Licciardo would like to be considered for the third and alternate members for the Standing Review Panel.
5/25/89	Memorandum from R. Licciardo to T. Murley, nominating S. Varga, F. Congel and G. Holahan to consider as third and alternate members of the Standing Review Panel.
5/26/89	Memorandum from T. Murley to F. Miraglia, C. E. Rossi, and F. Congel stating that they have designated the panel to review and recommend to the Director, NRR, the appropriate disposition of Mr. Licciardo's DPV.
6/2/89	Memorandum from F. Miraglia to R. Licciardo acknowledging that the Standing Review Panel has determined that adequate information has been supplied to initiate a review of the DPV.
6/16/89	The Standing Review Panel met with Mr. Licciardo to further discuss his views.
6/23/89	Memorandum from F. Miraglia to R. Licciardo acknowledges meeting held on June 16, 1989, and the Panel's request for the following information: (1) request that Mr. Licciardo more clearly state his concern regarding the time to fuel failure used in LOCA analyses; (2) request that Mr. Licciardo clarify the mechanisms for transporting fission products from the primary to containment used in Mr. Licciardo's analyses; and (3) request that he provide his view as to the safety significance of proceeding with the proposed Zion amendment and the safety significance of his concern regarding LOCA analyses.

- 6/30/89 Memorandum from R. Licciardo to F. Miraglia stating that the information requested by memo from F. Miraglia dated 6/23/89 will be provided by July 17, 1989.
- 7/14/89 Memorandum from R. Licciardo to F. Miraglia advising that information provided by his memorandum dated June 30, 1989 will be submitted by July 20, 1989
- 7/20/89 Memorandum from R. Licciardo to F. Miraglia transmitting information requested on June 23, 1989.



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

August 29, 1989

#17

NOTE TO: Frank Miraglia
FROM: Ashok Thadani
SUBJECT: DPV CONCERNING CONTAINMENT ISOLATION VALVES AT ZION

The attached provides the response to the question addressed in your note to me dated August 22, 1989.

A handwritten signature in cursive script, appearing to read "Ashok Thadani", with a long horizontal line extending to the right.

Ashok Thadani

Enclosure: As stated

~~B. 140148~~
XA ip.



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

H 16

August 25, 1989

NOTE TO: Ashok C. Thadani, Assistant Director
for Systems
Division of Engineering & Systems Technology

FROM: Robert C. Jones, Acting Chief
Reactor Systems Branch
Division of Engineering & Systems Technology

SUBJECT: DPV CONCERNING CONTAINMENT ISOLATION VALVES AT ZION

I have reviewed Robert Licciardo's August 22, 1989 memorandum to Frank Miraglia wherein he questioned the adequacy of Norm Lauben's analysis transmitted to you by M. W. Hodges note of August 10, 1989 (subsequently revised by note of August 23, 1989). The specific concern was that Norm's analysis failed to consider the consequences of a LOCA using low burnup, low pressure fuel and which have high linear heat generation rates (LHGR) than analyzed by Norm.

I have further evaluated this issue, with the assistance of Norm Lauben, in response to the memorandum. We have arrived at the following conclusions:

- (1) The specific case of low burnup, low pressure fuel is already analyzed in the LOCA analysis. The possibility for fuel pin rupture is continuously examined during the calculation and rupture is not calculated to occur during the early blowdown period of the LOCA.
- (2) As burnup increases to 40,000 MWD/MTU, average fuel temperatures decreases while fuel pin pressures slowly increase. We judge that this combination of temperatures and pressures would prevent an early rupture during blowdown.
- (3) Above 40,000 MWD/MTU, the earlier analysis sufficiently demonstrates that no earlier ruptures occur.

Therefore, the earlier conclusion that early rupture of fuel pins during the blowdown transient is not credible remains valid.

Robert C. Jones, Acting Chief
Reactor Systems Branch
Division of Engineering & Systems Technology

cc: N. Lauben (NLN-353)

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XA



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Robert C. Jones, Acting Chief
Reactor Systems Branch
Division of Engineering & Systems Technology

cc: N. Lauben (NLN-353)

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XA