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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

Before the Atomic Safety and Licensing Board

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In the Matter of)

CLEVELAND ELECTRIC ILLUMINATING)
COMPANY, Et Al.)

(Perry Nuclear Power Plant,)
Units. 1 and 2))

Docket No. OFF 83-46
DOCKETING & SERVICE
507-1111
(Operating License)

MOTION FOR RECONSIDERATION OF THE LICENSING BOARD'S
AUGUST 9, 1983 MEMORANDUM AND ORDER GRANTING SUMMARY
DISPOSITION OF ISSUE #13

Intervenor Ohio Citizens for Responsible Energy ("OCRE") hereby moves the Licensing Board to reconsider its August 9, 1983 Memorandum and Order (Summary Disposition of Turbine Missile Issue), LBP-83-46, on the grounds that the attached letter from S.H. Bush to A.J. Cappucci of the ACRS dated June 27, 1983 indicates that the Licensing Board seriously erred in granting summary disposition of Issue #13 without receiving additional evidence, specifically, the General Electric report, into the record.

OCRE is aware that this Board expects motions for reconsideration to be filed in a timely manner. The Board has interpreted "timely" to mean within 10 days. See August 18, 1983 Memorandum and Order (Motion to Reopen) at 12; January 28, 1983 Memorandum and Order (Reconsideration: Quality Assurance) at 12; December 13, 1982 Memorandum and Order (Concerning Reconsideration and Dismissal of Hydrogen Control Contention) at 1-2. Although this filing has exceeded that time period, OCRE believes that it has good cause for its late filing and that the Board should

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entertain it.

First, the letter upon which OCRE bases this motion, although dated June 27, 1983, was not docketed by the NRC until September, as evidenced by the accession number. It was not received by the Local Public Document Room in Perry, OH until September 19. OCRE did not discover it until October 7. The additional time, from October 7-14, was needed to contact Mr. Bush (see below) and to prepare this filing.

Secondly, OCRE did not file a timely motion for reconsideration because it chose to file exceptions with the Appeal Board instead. OCRE's review of the case law in the NRC's Practice and Procedure Digest (NUREG-0386) led it to believe that an appeal of an order granting summary disposition would not be interlocutory. OCRE felt that appealing to a different tribunal would be more effective than seeking reconsideration from this Board. The Appeal Board, in ALAB-736, held that such an appeal was interlocutory. OCRE was content to await the issuance of a partial initial decision, until the Bush letter was discovered. This letter constitutes proof that summary disposition should not have been granted.

The Licensing Board, in its August 9 decision, relied extensively on a publication by Mr. Bush. The attached letter by Mr. Bush remarkably echoes OCRE's primary argument (and that of Sunflower Alliance) opposing summary disposition at that time: that additional information, especially the GE report, was needed before the Staff's position can be confirmed.

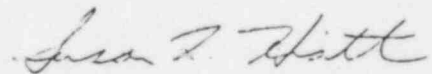
OCRE wanted to be sure that the June 27 letter still reflects Mr. Bush's opinion. On October 11, 1983, the OCRE Representative

called Mr. Bush. He stated that, to his knowledge, the GE reoprt has not been released yet, as he had requested it and still has not seen it, and that he would have to see that data before he could resolve his concerns.

A Licensing Board's findings must be supported by reliable, probative, and substantial evidence in the record. Pacific Gas and Electric (Diablo Canyon, Unit 2), ALAB-254, 8 AEC 1184 (1975). It is therefore nothing short of amazing that this Board would decide that the record was sufficient to grant summary disposition, when an expert in the field (and two parties to the proceeding) has stated that supporting documentation is necessary, that, until it is supplied, the Staff position must be considered optimistic, and that the burden of proof should be on the utility and turbine vendor.

For the foregoing reasons, OCRE urges the Licensing Board to reverse itself, to reinstate Issue #13 in this proceeding, to accord OCRE liberal discovery rights, and to decide the issue on the basis of a complete evidentiary record.

Respectfully submitted,



Susan L. Hiatt
OCRE Representative
8275 Munson Rd.
Mentor, OH 44060
(216) 255-3158



Pacific Northwest Laboratories
P.O. Box 999
Richland, Washington U.S.A. 99352
Telephone (509) 375-2223
Telex 15-2874

June 27, 1983

Mr. A. J. Cappucci, Staff Engineer
Advisory Committee on Reactor Safeguards
U. S. Nuclear Regulatory Commission
Mail Stop H-1016
Washington, D. C. 20555

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Dear Mr. Cappucci:

PERRY NUCLEAR POWER PLANT TURBINE MISSILE ISSUE

In my opinion, the issue isn't Perry, per se; rather, it is the validity of the NRR position with regard to turbine missiles generically for both orientations. I shall comment on the pro's and con's of the new position in a general sense. I doubt my remarks can be considered other than preliminary prior to reviewing the General Electric report on their turbines which I believe should become available in June.

A review of the various documents provided confirms a major overlap in material between the various versions of the Perry Supplement and the revised SRP and RG positions. With regard to the general issue of favorable versus unfavorable turbine orientations, I see the following issues.

- Historic data not necessarily relevant to nuclear turbines infers a failure probability, $P_f = 10^{-4}/T.Y.$ The stress corrosion cracking tends to be unique to nuclear turbines and one class of reheat turbines. Is the potential for failure from IGSCC higher or lower than $10^{-4}/yr$?
- A P_f value $<10^{-5}$ is set by NRR for turbines with unfavorable orientations versus $P_f = 10^{-4}$ for favorable orientations. Picking up an order of magnitude will have to be done exclusively by NDE, either volumetric (UT) or visual which infers removal of discs which is a pain. I'll discuss UT reliability more later.
- The selection of time intervals for ISI appears to be based on data that infers that $1/2 a_c$ is not reached within three years. Since I have not seen a G.E. documentation validating such a number, or an NRR confirmation, I need to accept it on faith. Since this becomes the gut issue, I'm reluctant to do so. The Westinghouse document tends to confirm such a value and I obtain some degree of comfort vis-a-vis a G.E. turbine because Westinghouse historically has opted for higher strength alloys which would be more susceptible to cracking, and possibly to crack growth rate, compared to G.E. Again, I would like to see the data. At this time, I would be unwilling to accept no ISI until three years in the absence of confirmatory data; e.g., the expected G.E. report.

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Certified By

Mr. Cappucci
June 27, 1983
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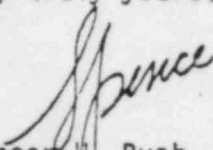
The final issue has to do with the reliability of crack detection and sizing in turbine discs using UT. The material poses no problems for UT. Geometry is somewhat complex, but less so than other systems that have been UT'd successfully. A relative unknown is reliability of detection of IGSCC by UT in ferritic alloys. Because of the nature of IGSCC, it is more difficult to detect than fatigue, L-O-F, etc. I feel it can be detected; however, I am unwilling to set a reliability value. My gut feeling is that I should be able to detect cracks with a reliability of +90% at 95% confidence.

Two other issues remain. The critical crack size will differ for Westinghouse plants versus G.E. because of material toughness considerations. It's interesting to read the Westinghouse report when they skillfully skirt the actual a_c size. One would need a table of a_c values as functions of material toughness and 0, 10, 20% overspeed to see the size range. The second half of the problem is the reliability of sizing IGSCC. While I am confident that the cracks will be detected, I'm less confident that they will be sized accurately and the burden of proof should be on the utility, G.E. and Westinghouse to confirm sizing reliability based on experimental data.

If you forward the G.E. supporting document to me, I'll review and see if their position resolves my concerns. Until I see that report, I consider the NRR position as optimistic. Summarizing:

- Validation of crack growth rates is required;
- Critical flaw sizes as functions of material properties and turbine speed should be given; and
- Confirmation of reliability and accuracy of sizing IGSCC cracks is needed.

Very truly yours,



Spencer H. Bush, P.E.
Senior Staff Consultant

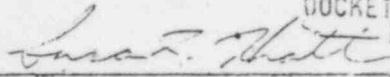
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CERTIFICATE OF SERVICE

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This is to certify that copies of the foregoing were served by deposit in the U.S. Mail, first class, postage prepaid, this 15th day of October, 1983 to those on the service list below. OCT 17 11:07

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH


Susan L. Hiatt

SERVICE LIST

Peter B. Bloch, Chairman
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Comm.
Washington, D.C. 20555

Terry Lodge, Esq.
~~McCormack, Pommeranz, &~~
~~Lodge~~
~~824 National Bank Bldg.~~
~~Toledo, OH 43604~~

Dr. Jerry R. Kline
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

618 N. MICHIGAN ST
SUITE 105
TOLEDO, OH 43624

Mr. Glenn O. Bright
Atomic Safety & Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

~~COLLEEN P. WOODHEAD~~
~~James M. Cutchin, IV, Esq.~~
Office of the Executive Legal Director
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Jay Silberg, Esq.
Shaw, Pittman, Potts, & Trowbridge
1800 M Street, NW
Washington, D.C. 20036

Docketing & Service Branch
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Atomic Safety & Licensing Appeal Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555