



August 17, 1995

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Dresden Station Units 2 and 3
LaSalle Station Units 1 and 2
Quad Cities Station Units 1 and 2
ComEd Response to NRC Generic Letter 92-01, Revision 1,
Supplement 1, "Reactor Vessel Structural Integrity"
NRC Dockets 50-237 and 50-249
NRC Dockets 50-373 and 50-374
NRC Dockets 50-254 and 50-265

Reference: USNRC Generic Letter 92-01, Revision 1, Supplement 1, "Reactor
Vessel Structural Integrity"

The purpose of this letter is to provide the ComEd Company response to Part (1) of the subject Generic Letter for Dresden, LaSalle, and Quad Cities Nuclear Power Stations. This Generic Letter requests the licensees to provide the following information within 90 days of the date of the Generic Letter (May 19, 1995):

- (1) A description of those actions taken or planned to locate all data relevant to the determination of RPV integrity, or an explanation of why the existing data base is considered complete as previously submitted.

The Generic Letter also requests the following information be provided within 6 months from the date of the Generic Letter (May 19, 1995):

- (2) An assessment of any change in best-estimate chemistry based on consideration of all relevant data.
- (3) A determination of the need for use of the ratio procedure in accordance with the established Position 2.1 of Regulatory Guide 1.99, Revision 2, for those licensees that use surveillance data to provide a basis for the RPV integrity evaluation.
- (4) A written report providing any newly required data as specified above and (1) the results of any necessary revisions to the evaluation of RPV integrity in accordance with the requirements of 10 CFR 50.60, 10 CFR 50.61, Appendices G and H to 10 CFR Part 50, and any potential impact on the

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August 17, 1995

LTOP or P-T limits in the technical specifications or (2) a certification that previously submitted evaluations remain valid. Revised evaluations and certifications should include consideration of Position 2.1 of Regulatory Guide 1.99, Revision 2, as applicable, and any new data.

The attachment to this letter dated August 10, 1995, prepared by the Boiling Water Reactor Vessel and Internals Project (BWRVIP), "BWRVIP ACTION PLAN FOR RPV INTEGRITY DATA," provides the ComEd response to Part (1) for Dresden Units 2 and 3, LaSalle Units 1 and 2, and Quad Cities Units 1 and 2. ComEd will actively participate with the BWRVIP to carry out the plan as described in the attachment.

Written responses to Parts (2), (3), and (4) of Generic Letter 92-01, Revision 1, Supplement 1, will be provided to the NRC within 6 months from the date of the Generic Letter.

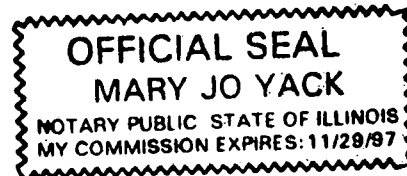
Please direct any questions pertaining to this response to me at (708) 663-7292.

To the best of my knowledge and belief, the statements contained in this document are true and correct. In some respects these statements are not based on my personal knowledge, but on information furnished by other ComEd employees, contractor employees, and/or consultants. Such information has been reviewed in accordance with company practice, and I believe it to be reliable.

Sincerely,



Martin J. Vonk
Licensing Administrator



Mary Jo Yack 8-17-95

cc: H. Miller, Regional Administrator, USNRC Region III
J. Stang, Dresden Project Manager, NRR
R Lotta, LaSalle Project Manager, NRR
R. Pulsifer, Quad Cities Project Manager, NRR
M. Leach, Senior Resident Inspector, Dresden
D. Hills, Senior Resident Inspector, LaSalle
C. Miller, Senior Resident Inspector, Quad Cities

BWRVIP

BWR Vessel &
Internals Project

98-404

Issue Management and Resolution

August 10, 1995

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

**SUBJECT: BWRVIP Response to NRC Generic Letter 92-01, Revision 1,
Supplement 1, Reactor Vessel Structural Integrity**

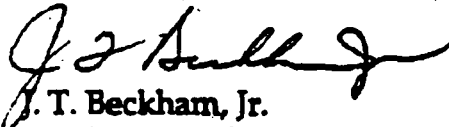
Attached is the BWRVIP Action Plan to develop a generic BWR response to the requests described in NRC Generic Letter 92-01, Revision 1, Supplement 1.

The BWRVIP utilities have approved the attached Action Plan for developing a generic response to the requests in the Generic Letter and are proceeding with that work. This transmittal of the BWRVIP Action Plan does not represent a commitment for any utility. Each utility will provide a response to the Generic Letter directly to the NRC. The utility submittals can reference or adopt this BWRVIP Action Plan as determined by the utility.

The BWRVIP agrees with the statements in the Generic Letter that the nature of BWR operating characteristics are such that pressurized thermal shock (PTS) and low temperature over pressure (LTOP) events do not apply to BWRs. Furthermore, the BWRVIP believes that the issues in the Generic Letter that are applicable to BWRs, though important, do not represent a near term plant operational concern.

If you have any questions on this subject please feel free to call Tom Spry of ComEd at (708) 663-7268 or Robin Dyle of Southern Nuclear at (205) 877-7121.

Sincerely,



J. T. Beckham, Jr.
Southern Nuclear Operating Company
Chairman, BWR Vessel & Internals Project

Reply To: J. T. Beckham, Jr., BWRVIP Chairman, Southern Nuclear Operating Co., 42 Inverness
Center Parkway, Birmingham, AL 35242 • (205) 877-7279 • Fax: (205) 802-0393

BACKGROUND

Generic Letter (GL) 92-01, Revision 1, Supplement 1, was issued by the NRC as a result of determining that weld chemistry variability, specifically copper, was greater than previously expected for certain weld heats in Combustion Engineering (CE) fabricated vessels. The GL requests that all U. S. plants develop a plan to locate all data relevant to their RPV integrity by August 17, 1995, and to then adjust plant evaluations based on that data by November 20, 1995. This action plan describes the BWR Vessel and Internals Project (BWRVIP) response to the information requests in the Generic Letter.

The BWRVIP intends to complete the work requested in the Generic Letter as expeditiously as possible. The BWRVIP intends to work with the Nuclear Energy Institute (NEI) RPV Integrity Data Task Force, which includes representatives of all Owners' Groups, to develop standard methods of evaluating and applying RPV integrity data. While the process of locating, retrieving and evaluating additional data is expected to be time consuming, the BWRVIP has developed a plan described here for generic application to all BWRVIP members that meets the technical requirements of the GL.

As part of the BWRVIP response to the GL, the BWRVIP is determining the effort involved in locating and retrieving the available RPV data. Recognizing that such retrieval cannot be completely performed by November 20, the BWRVIP plans to develop a preliminary generic response to GL requests 2, 3 and 4. This will be provided along with a progress report by November 20, 1995. Based on the BWRVIP preliminary evaluation of the effort associated with this GL and input from all the Owners' Groups, an elapsed time to finalize the response is expected to be at least 24 months. Additional progress reports will be provided. The details of the plan are provided below.

1. **Response to GL Request 1. The GL Supplement requests, by August 17, 1995, "a description of those actions taken or planned to evaluate all data relevant to the determination of RPV integrity..."**

The BWRVIP will review available industry data bases, such as RVID from the NRC, published data from ABB-CE and hard copy of RPV DATA from the

Westinghouse Owners' Group (WOG), and will review the collected records (at GE) of beltline materials used for past vessel integrity evaluations. The BWRVIP will review and evaluate information in these data bases and the response to be provided by November 20, 1995 will discuss any inconsistencies found. Resolution of any inconsistencies will be addressed in the BWRVIP response to GL requests 2 and 4 as described below. These data will be used to identify BWR and PWR plants with common materials (sister plants) and to generate a complete list of beltline materials for each BWR vessel fabricator. The list for each fabricator will identify all plate, weld and forging materials in each plant's beltline, and any known sister plant(s) for each material. The list will also document the best estimate vessel integrity data. ABB-CE is already performing a comprehensive data retrieval for owners of CE-fabricated vessels, including BWRs. The information available from ABB-CE will be incorporated into the BWRVIP work.

The BWRVIP will request of vessel fabricators a proposal by November 20 to, by material, a) identify any vessels (BWR or PWR) which they fabricated which have the same material, and either b) retrieve and document all additional data relevant to vessel integrity on each material or c) verify that no additional data are available.

Requests for proposals will be sent to the following BWR fabricators: B&W, CB&I/CBIN, Hitachi and Ishikawajima-Harima Industries (IHI).

The plan is to obtain proposals by November 20, 1995. However, the resulting data would not be collected and documented until considerably past that date. Therefore, *preliminary* generic evaluations will be performed with available data and documented in the response to be provided by November 20. The preliminary evaluations will address the remaining three GL supplement issues as follows.

2. **Response to GL Request 2. The GL Supplement requests, by November 20, 1995, "an assessment of any change in best-estimate chemistry based on consideration of all relevant data."**

It is the intent of the BWRVIP to assess changes in best estimate chemistry using a standard industry method, to be developed in cooperation with the NEI RPV Integrity Data Task Force. This process is expected to take more than a year. The November 20 evaluation will show that the current chemistries, and thus the current pressure-temperature (P-T) curves, have adequate safety margin for use during that time. This evaluation will address the current understanding of variations in chemistry and the large margins inherent in P-T curves.

3. **Response to GL Request 3. The GL supplement requests, by November 20, 1995, "a determination of the need for use of the ratio procedure in accordance with the established Position 2.1 of Regulatory Guide 1.99, Revision 2, for those licensees that use surveillance data to provide a basis for RPV integrity evaluation..."**

For most BWRs, with one set or no sets of surveillance data, this is not a near-term issue, and that will be explained. For a few, the Position 2.1 method has been used to adjust the Adjusted Reference Temperature (ART). The past applications of the Position 2.1 method will be described. Future industry-standardized application will be part of the longer range effort.

4. **Response to GL Request 4. The GL supplement requests, by November 20, 1995, "a written report providing ... the results of any necessary revisions to the evaluation of RPV integrity ..."**

Aside from the impact on ART, chemistry variability, namely copper, can impact BWR upper shelf energy (USE) compliance. Vessel USE was evaluated generically by the BWR Owners' Group by means of an Equivalent Margin Analysis (EMA). That analysis [1] will be reviewed, in light of the known variations in copper (e.g., in the industry data bases such as RVID and RPVDATA), to determine the impact, if any, on conclusions in that report.

A weld-specific analysis of USE will be performed for materials determined to have >0.35% copper, which is the maximum evaluated in the EMA.

SUMMARY

The BWRVIP will, by November 20, determine the effort required to locate and retrieve from vessel fabricators additional data related to RPV integrity. The process of data retrieval, and development of standard industry practices for applying the data, will require at least 24 months to complete. Therefore, the assessments in the response to be provided by November 20 will be made with preliminary data to show that adequate margins exist in the near term in BWR P-T curves and USE equivalent margin analysis.

REFERENCE

- [1] Mehta, et. al., "Equivalent Margin Analysis for Low Upper Shelf Energy in BWR/2-6 Vessels," GE Report NEDO-32205-A, Revision 1, February 1994.