



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

September 28, 1992

Dr. T. E. Murley, Director
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Commonwealth Edison Response to Generic Letter 92-04, "Resolution of the Issues Related to Reactor Vessel Water Level Instrumentation in BWRs,"

Dresden Station Units 2 and 3
NRC Docket Numbers 50-237 and 249

Quad Cities Station Units 1 and 2
NRC Docket Numbers 50-254 and 265

LaSalle Station Units 1 and 2
NRC Docket Numbers 50-373 and 374

- References:
- 1) BWROG letter-92072, G. J. Beck to the NRC, W. T. Russell dated August 12, 1992.
 - 2) BWROG Report GENE-770-15-0692, "BWR Reactor Vessel Water Level Instrumentation", Revision 1, August 1992, submitted to NRC on August 28, 1992.
 - 3) BWROG letter-92082, G. J. Beck to the NRC dated September 24, 1992.

Dear Dr. Murley:

On August 19, 1992 the NRC issued Generic Letter 92-04 to request information regarding the adequacy of and corrective actions for Boiling Water Reactor (BWR) water level instrumentation with respect to effects of noncondensable gases on system operation. The NRC Staff is concerned that, during a postulated rapid depressurization event, noncondensable gases may come out of solution and displace the water in the reference leg, resulting in an inaccurate water level indication.

020076

9210060288 920928
PDR ADDCK 05000237
P PDR

ZNLD2171/1

A001
.11

September 28, 1992

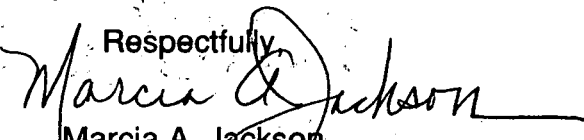
On July 29, 1992, the NRC met with the BWR Owner's Group (BWROG) to discuss the noncondensable gas issue. As a result of that meeting, the BWROG provided the Staff an action plan (Reference 1) and a report (Reference 2) to address the noncondensable gas issue. The BWROG action plan provided the long term plan and schedule to address postulated errors in BWR water level instrumentation due to noncondensable gases. The BWROG report included a conservative analysis of the effect of gases coming out of solution on the uncertainty of water level instruments and a safety assessment of plant and operator responses to postulated event scenarios. The BWROG report concluded that there is no substantial safety hazard posed by the postulated effects of noncondensable gases on BWR reactor vessel water level instrumentation reference legs.

Commonwealth Edison (CECo) has reviewed the BWROG report and confirmed the applicability of the generic evaluation to all of our BWR facilities. CECo supports both the BWROG action plan (Reference 1) and the BWROG report (Reference 2). Additionally, CECo supports the BWROG position that the underlying phenomena for the noncondensable gas issue, and its significance relative to the performance of the reactor vessel water level instrumentation systems, must be better understood in order to determine if hardware and/or procedure modifications are necessary (Reference 3). Commonwealth Edison's response to Generic Letter 92-04 for the Dresden, Quad Cities, and LaSalle Stations is presented in the Attachment to this letter.

To the best of my knowledge and belief, the statements in the Attachments contained herein are true and correct. These statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison employees and consultants. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

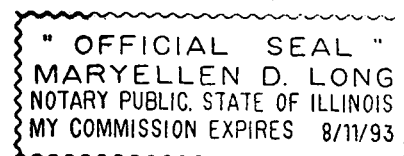
Please direct any questions that you may have to this office.

Respectfully,


Marcia A. Jackson
Nuclear Licensing Administrator
Generic Issues

Attachment: Commonwealth Edison Response to Generic Letter 92-04

cc: A. Bert Davis, Regional Administrator, RIII
R. Barrett, Project Director, NRR
B. Siegel, Project Manager, NRR
L. Olshan, Project Manager, NRR
Dresden Station, Senior Resident Inspector
Quad Cities, Senior Resident Inspector
LaSalle Station, Senior Resident Inspector



ATTACHMENT
Commonwealth Edison Response to Generic Letter 92-04

The following information represents the Commonwealth Edison response to the Requested Actions in the Generic Letter for the Dresden, Quad Cities, and LaSalle nuclear power stations.

Requested Action 1.

In light of potential errors resulting from the effects of noncondensable gas, each licensee should determine the impact of potential level indication errors on:

- a. Automatic safety system response during all licensing basis transients and accidents;

The BWROG report (Reference 2) addresses the safety impact of potential water level indication errors on automatic safety system response during all licensing basis transients and accidents. This analysis basis is contained in Section 6.0 Safety Analysis of the report and summarized in Section 2.2 Plant Responses to Postulated Accident Scenarios. It is Commonwealth Edison's assessment that the information in the referenced BWROG report is applicable to Dresden, Quad Cities and LaSalle stations. This conclusion is based on our review of this report and the evaluation by General Electric that the safety analysis is applicable to the BWR 2/3/4/5/6 plant lines (Attachment 2 of the BWROG report).

- b. Operator's short term and long term actions during and after all licensing basis accidents and scenarios;

The BWROG report addresses the potential operator actions that could be anticipated in response to potential water level errors. In the short term the report discusses in Section 6.0, that the automatic safety actions will be performed as necessary. This information is contained in Section 6.9 Operator Responses of the report and the Emergency Procedures Committee (EPC) recommendation letter (Reference 4). CECO has informed its operators of this information. The existing long term guidance provided in the Emergency Operating Procedures (EOPs) has changed to the extent that the interim guidance information has sensitized them to the possible concerns with accurate water level readings following a rapid depressurization.

- c. Operator actions prescribed in emergency operating procedures or other affected procedures not covered in (b).

As stated in section 6.9 of the BWROG report and the 1.b response above the operators have adequate information in the present EOPs as augmented by the EPC information. The EPC is continuing to review the potential need for any additional guidance in the Emergency Procedure Guidelines (EPG) to further address the potential water level indication errors. Such review will take into account the information from the BWROG program of analysis and testing regarding this issue.

ATTACHMENT
Commonwealth Edison Response to Generic Letter 92-04
(Continued)

Requested Action 2.

Based upon the results of (1) above, each licensee should notify the NRC of short term actions taken, such as:

- a. Periodic monitoring of level instrumentation system leakage;

CECo does not plan to periodically monitor the level instrumentation system for leakage, however, review and planning is presently underway for the installation of temperature monitoring on the condensation chambers of the cold leg water level instrumentation. This information potentially will assist in the correlation of plant data to the information from the BWROG test program.

- b. Implementation of procedures and operator training to assure that potential level errors will not result in improper operator actions.

CECo has informed its operators of the information contained in the EPC letter (Reference 4). The existing information about the configuration of the cold leg water level instrumentation has been reviewed. The available information has been provided to the BWROG to be factored into the BWROG test program (Reference 1). The significance of different characteristics of the configuration of cold leg water level instrumentation will not be understood until the BWROG program test information is available.

Requested Action 3.

Each licensee should provide its plans and schedule for corrective actions, including any proposed hardware modifications to ensure the level instrumentation system design is of high functional reliability for long term operation. Since this instrumentation plays an important role in plant safety and is required for both normal and accident conditions, the staff recommends that each utility implement its longer term actions to assure a level instrumentation system of high functional reliability at the first opportunity but prior to starting up after the next refueling outage commencing 3 months after the date of this letter.

Commonwealth Edison endorses the BWROG action plan provided in Reference 1. CECO also reaffirms support of the BWROG plan by endorsing the BWROG letter submitted to the NRC on September 24, 1992 (Reference 3). The Reference 3 letter explains in further detail the integration of activities in the action plan originally provided in Reference 1. Commonwealth Edison agrees that adequate planning and preparation for a plant hardware modification is essential to assure proper implementation, and that preparation must start well in advance of the refueling outage.

ATTACHMENT
Commonwealth Edison Response to Generic Letter 92-04
(Continued)

The BWROG action plan will identify the root cause of the noncondensable gas phenomena through analytical and experimental means. Results of this program will provide assurance of the need for a plant modification or the applicability of a particular modification design. Currently, identification and evaluation of potential alternatives for plant and procedure modifications, if necessary, are scheduled for completion by April 1993 with completion of each utility's assessment of plant and procedure modifications by July 1993. Commonwealth Edison supports the integrated activities of the BWROG action plan.

- References:
- 1) BWROG letter-92072, G. J. Beck to the NRC, W. T. Russell dated August 12, 1992.
 - 2) BWROG Report GENE-770-15-0692, "BWR Reactor Vessel Water Level Instrumentation", Revision 1, August 1992, submitted to NRC on August 28, 1992.
 - 3) BWR Owner's Group Response to the Third Requested Action of Generic Letter 92-04 dated September 24, 1992.
 - 4) EPC letter to BWROG Plant Operations Superintendents on Revised Guidance to the Plant Operators dated August 19, 1992.