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December 4, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2
LaSalle County Station Units 1 and 2
Response to Generic Letter 84-23
NRC Docket Nos. 50-237/249, 50-254/265,
50-373/374

Reference (a): Generic Letter 84-23 - D. G. Eisenhower letter
to All BWR OLS dated October 26, 1984

Dear Mr. Denton:

Reference (a) requested that all BWR operating plants furnish a description of their plans with respect to improving reactor vessel water level instrumentation. In particular it requested information on reference leg overheating and mechanical level indication equipment replacement. Attached are the responses for Dresden, LaSalle County, and Quad Cities Stations.

Please address any questions that you or your staff may have concerning our response to this office. One signed original with Attachment and fifteen copies are being provided for your use.

Sincerely,

Greg Alexander
Nuclear Licensing Administrator

Attachment

cc: RIII Inspectors D/QC/LSC

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RESPONSE TO GENERIC LETTER 84-23

ATTACHMENT - PART I

DRESDEN STATION UNITS 2 AND 3

QUAD CITIES STATION UNITS 1 AND 2

Dresden Station Units 2 and 3
Quad Cities Station Units 1 and 2

Reference Leg Overheating

According to the drawings, the vertical drop from the condensation pot to the reference leg drywell exit point is approximately 15 ft. at Dresden and Quad Cities Stations. Due to the possible drywell heating problem, the available options as presented in the S. Levy, Inc. report must be evaluated on a plant specific basis. The options for reference leg overheating or reduction of the vertical drop must be evaluated with respect to spare penetrations, auxiliary cooling sources, and electrical load requirements. The schedule to minimize the effect of the high drywell temperature on the Reactor Water Level System is as follows:

<u>Task</u>	<u>Completion Date</u>
I Evaluation of Available Options	December 1, 1985
II Preliminary Design	September 1, 1986
III Final Design	December 1, 1986

Due to equipment lead times, the installation could then be implemented one year after approval of the final design. This could be accomplished during each units refueling outage beginning after December 1, 1987.

Replacement of Mechanical Level Indication Equipment

The subject Generic Letter No. 84-23 and S. Levy, Inc. report SL1-8211, "Review of BWR Reactor Vessel Water Level Measurement System," have been reviewed to determine applicability to the Dresden and Quad Cities Stations. The affected Yarway instruments are as follows:

LIS-263-57A,B	LITS-263-59A,B
LIS-263-58A,B	LITS-263-73A,B
LIS-263-72A,B,C,D	

As part of the Environmental Qualification of equipment program, LIS-263-57A,B, LIS-263-58A,B, and LITS-263-73A,B, have been or will be replaced with analog transmitter-trip units according to the following scheduled unit outages:

Quad Cities	Unit 1:	Spring, 1984 complete
	Unit 2:	Spring, 1985
Dresden	Unit 2:	Fall, 1984
	Unit 3:	Fall, 1985

The decision to replace the above instruments was based on the requirements and guidance as provided through the environmental qualification of equipment program, I.E. Bulletin 79-01B. The analog transmitter trip units are the recommended replacements for the Yarway Instruments. Also, the racks on which all of the reactor vessel level instruments are installed are being seismically upgraded.

LIS-263-72A, B, C, D, and LITS-263-59A, B are not scheduled to be replaced because they are environmentally qualified and because of their function.

RESPONSE TO GENERIC LETTER 84-23

ATTACHMENT - PART II

LASALLE COUNTY STATION UNITS 1 AND 2

LaSalle County Station Units 1 & 2

Reference Leg Overheating

Review of the "Instrumentation for Detection of Inadequate Core Cooling" question was begun during the LaSalle licensing process (TMI requirements II.F.2, SSER-5) and showed a significant level error that exceeded the criteria given in the S. Levy, Inc. Report (SLI-82-11). A guard pipe cooling system was then proposed to eliminate this problem by maintaining the reference leg temperature below the flash point. This conceptual design was forwarded to A. Schwencer by our May 31, 1983 letter for review. Engineering is still in progress on this system.

As this design called for an active system, with subsequent surveillances and testing, a study was also conducted to determine if a passive system could be designed. Review of existing penetrations have found four that have the potential of being suitable for routing the reference line outside of containment. These penetrations will reduce the vertical drop of the reference leg, to about two feet.

Since no final decision has been made on which modification to perform, a firm schedule has not been established. However, we feel it is possible to have this modification completed by the end of the first refueling outages of both units using either system or a combination of both.

Replacement of Mechanical Level Indication Equipment

The present LaSalle level instrumentation consists of Barton level indicating trip switches. Trip function is provided by actuation of a micro switch by a differential pressure bellows. Maintenance history problems consists mostly of replacement of micro-switches and calibration difficulties. Frequency of these occurrences in both number and repeatability in the population of existing instruments is small. We presently feel we could categorize our experience with these devices as good.

However, based on environmental qualification requirements, a replacement program for most of the Barton Devices has been established to comply with NRC requirements (NUREG-0588). Replacement of the trip units will be with Static-O-Ring Model 103 devices, and level transmitters with Rosemount Model 1153 Units. Both devices have been fully environmentally qualified for their locations in LaSalle County Station. There are no plans to subsequently replace these devices with analog trip units.