Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

January 23, 1995

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Braidwood Nuclear Power Station, Unit 1
Residual Heat Removal (RHR) Heat Exchanger (HX) Nozzle to Vessel Welds Inservice Inspection Results
NRC Docket No. STN 50-456

References:
1. Teleconference between Commonwealth Edison Company (ComEd) and the Nuclear Regulatory Commission (NRC) held on January 20, 1995 regarding Byron and Braidwood Stations, Units 1 and 2, RHR HX Nozzle to Vessel Weld Inservice Inspections

2. Robert M. Pulsifer (NRC) letter to Thomas J. Kovach (ComEd) dated November 21, 1991 transmitting the Safety Evaluation Report (SER) for the Braidwood Station, Unit 2, RHR HX Nozzle to Vessel Welds Fracture Mechanics Analysis

The purpose of this letter is to transmit the results of the last ASME Section XI Inservice Inspection of the Braidwood Unit 1 RHR HX Nozzle to Vessel Welds as requested in Reference 1. These inspections were conducted during the Braidwood Unit 1 Cycle 3 Refuel Outage (A1R03) which began September 5, 1992, and concluded November 3, 1992.

During these inspections, ultrasonic reflectors greater than those allowable by ASME Section XI Subarticle IWB-3500 were detected. These indications were subsequently evaluated using fracture mechanics analysis performed in accordance with ASME Section XI Subarticle IWB-3600 and determined to be acceptable. The fracture mechanics analysis that was used is documented in Westinghouse Letter Report MMDF-SMT-062(92), "Fracture Mechanics Evaluation Byron and Braidwood Units 1 and 2 Residual Heat Exchanger Tube Side Inlet and Outlet Nozzles." The methodology outlined in this report has been previously reviewed and approved by the Staff (See Reference 2).

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As shown in the attachment, all indications fall within ASME Section XI acceptance standards in Subarticles IWB-3500 and IWB-3600.

Please address any further comments or questions regarding this matter to this office.

Sincerely,

Harold D. Pontious, Jr.
Nuclear Licensing Administrator

Attachment

cc: J. B. Martin, Regional Administrator - Region III
S. G. DuPont, Senior Resident Inspector - Braidwood
R. R. Assa, Braidwood Project Manager - NRR
Office of Nuclear Facility Safety - IDNS

ATTACHMENT

INDICATION SUMMARY

Component: 1RH02AA **Weld No:** 1RHXN-1
Outlet Nozzle

A total of 10 indications above 50% DAC were recorded with 2 of these indications exceeding 100% DAC with definable length.

The following is a summary of indications which exceed 100% DAC and exhibit a definable depth and length as reported in Ebasco ultrasonic report number 92BR1-UT-057:

Ind.	Loc.	Max. Amp.	Lgth.	a**	a/l	a/t*
3	8.64-10.56"	141%	1.92"	.120"	.062"	30.0%
8	30.77-31.09"	126%	.32"	.120"	.375"	30.0%

* a/t represents through wall percentages of indication utilizing the nozzle wall thickness (.400").

** Denotes ASME Section XI (Article IWA-3000) characterization (i.e. a=surface, 2a=subsurface).

Identified flaws were characterized as surface flaws per Table IWB 3514-2.

ATTACHMENT (Continued)

Component: **1RH02AA** **Weld No:** **1RHXN-2 Inlet Nozzle**

A total of 16 indications above 50% DAC were recorded with 4 of these indications exceeding 100% DAC with definable length.

The following is a summary of indications which exceed 100% DAC and exhibit a definable depth and length as reported in Ebasco ultrasonic report number 92BR1-UT-058:

Ind.	Loc.	Max. Amp.	Lgth.	a**	a/l	a/t*
3	9.36- 9.80"	112%	.44"	.150"	.341"	37.5%
12	30.10-31.45"	158%	1.35"	.094"	.070"	23.5%
15	38.53-39.10"	126%	.57"	.130"	.228"	32.5%
16	41.01-42.02"	112%	1.01"	.094"	.093"	23.5%

* a/t represents through wall percentages of indication utilizing the nozzle wall thickness (.400").

** Denotes ASME Section XI (Article IWA-3000) characterization (i.e. a=surface, 2a=subsurface).

Identified flaws were characterized as surface flaws per Table IWB 3514-2.

ATTACHMENT (Continued)

Component: **1RH02AB** **Weld No:** **1RHXN-1 Outlet Nozzle**

No indications above 50% DAC were recorded as rep ted in Ebasco ultrasonic report number 92BR1-UT-059.

Component: **1RH02AB** **Weld No:** **1RHXN-2 Inlet Nozzle**

A total of 5 indications above 50% DAC were recorded with none of these indications exceeding 100% DAC with definable length as reported in Ebasco ultrasonic report number 92BR1-UT-060.