

ISI SUMMARY REPORT

May 7, 1986

COMMONWEALTH EDISON  
P.O. Box 767  
Chicago, Illinois 60690

QUAD CITIES NUCLEAR POWER STATION  
22710 206 Avenue North  
Cordova, Illinois 61242

UNIT 1  
Commercial operating data: February 18, 1973

8605230085 860513  
PDR ADOCK 05000254  
Q PDR

0506H/0216Z

## INTRODUCTION

General Electric (GE) was contracted by the Commonwealth Edison Company (CECO) to perform the second Inservice Inspection (ISI) of the second inspection interval on Unit 1 of the Quad-Cities Nuclear Power Station. The scope of GE activities included the performance of Liquid Penetrant, Magnetic Particle, and Ultrasonic Nondestructive Examinations. Visual examinations were performed by certified CECO inspectors. The examinations were performed on portions of the reactor pressure vessel and its associated coolant systems and components.

The Nondestructive Examinations were performed according to the requirements of the Quad-Cities Nuclear Power Station Units 1 and 2 Inspection and Testing Program which complies with Section XI of the ASME Boiler and Pressure Vessel Code, 1980 Edition through 1980 Winter Addenda.

This report compiles the information pertaining to the Nondestructive Examinations conducted by GE and Visual Examinations performed by CECO. It is divided into Discussion and Data sections.

The Discussion section addresses the scope, scheduling, and performance of NDE activities, personnel, calibration and examination report generation, and the methods used to interpret and evaluate the Nondestructive examination results.

The Data section contains tabular listings of GE's equipment and personnel rosters (table II and III), procedures used (table IV) and summarized results of all ISI examinations (table I).

## DISCUSSION

### Scope of GE Activities

Nondestructive Examinations were performed on portions of the Reactor Pressure Vessel and its associated coolant system piping and components as directed by Quad-Cities personnel. The examinations were performed to meet the requirements of the Quad-Cities Nuclear Power Station, Units 1 and 2 inspection and testing program. The procedures used were prepared and approved by Commonwealth Edison, and comply with the requirements of Section XI of the ASME 1980 Edition through 1980 Winter Addenda.

### Scheduling and Performance

The daily schedule of examinations activities was governed by the preparation and availability of the items to be examined, and the anticipated personnel exposure within the work area. The Inservice Inspection Schedule was designed to locate and correct detrimental conditions as early in the outage as possible, to minimize conflict with Critical Path Activities.

Ultrasonic examinations were generally performed by teams of two or more individuals. Liquid Penetrant, Magnetic Particle, and Visual Examinations were conducted by single individuals, or teams consisting of an examiner and an assistant or helper.

## Personnel

Personnel participating in the examination activities are certified in accordance with SNT-TC-1A 1975/1980 Edition. They are identified by name, level of certification, and function, on the report appropriate to each item examined. Table III listed GE's personnel, their levels of certification, and job function. Certification records of all participating personnel are on files at Quad-Cities Station.

## Calibration and Examination Report Generation

Prior to the start of an ultrasonic examination series, a system calibration was performed on the calibration block appropriate to the item to be examined. An ultrasonic calibration report was prepared, identifying the personnel, equipment, and materials, and used as an aid in the interpretation and evaluation of examination results. Each calibration report is uniquely identified by a number, and references the applicable examinations by examination report number and item identification.

An examination report, appropriate to the NDE method, was prepared for each examination. The examination reports identify the item examined, the procedure used, the examination results, and references the appropriate calibration report by number.

## Interpretation and Evaluation

The interpretation and evaluation of examination results were based on the location, shape, and apparent dimensions of the indication. Additional information obtained from other sources, such as radiography or ultrasonic thickness measurements, was used in the interpretation and evaluation process as circumstances and availability indicated. The ultrasonic examinations were performed with the manual, master/slave, and automated ultrasonic systems. The automated ultrasonic examinations were performed with the Ultra Image III computerized data acquisition system utilizing a VCR ALARA-1 automated scanner. The digitized data is permanently stored on floppy discs and the "A" scan is recorded on VHS format video tapes for later retrieval analysis and display. The master/slave data was manually recorded and the A scan was recorded by VHS format video tape. Recording reporting levels, and acceptance criteria are as detailed in the examination procedures.

The results of all I.S.I.'s examinations are summarized in table I.

QUAD-CITIES UNIT ONE

OP CYC 08

SUMMARIZED ISI RESULTS

TABLE I

Report No.	Component/Weld No.	Exam Method	Remarks
RA-001	02L-F6*(1)	UT-45°	ID Geom.
RA-002	02H-F6*(1)	UT-45°	ID noise
RA-006, R036, R036A	10S-F8*(1)	UT-0°, 45°	NRI
R003, R007	10BD-S17*(1)	UT-0°, 45°	ID Geom.
R004, R008	10AD-S15*(1)	UT-0°, 45°	NRI
R005, R009	1404-4*(2)	PT	Accept.
R010, R011	3950-M-313.1(3)	VT-3,4	No Ind
R012	3950-M-312(3)	VT-3	No Ind
R013	1001-29A Vlv Bolting (1)	VT-1	No Ind
R017, R018	10AD-S8*(1)	UT-0°, 45°	ID(Root)Geom
R027	02AS-S4*(4)	UT-0°, 45°	ID & OD Geom
R035, R038	02A-S7*(1)	UT-0°, 45°	NRI
R039	02AS-S4*(1)	PT	Accept
R040	10S-F8*(1)	PT	Accept
R041	02BD-S2*(1)	PT	Accept
R042, R050	02BD-S2*(1)	UT-0°, 45°	Root Geom.
R059	12S-F4R*(1)	PT	Accept
R060	10HS-F10A*(1)	PT	Accept
R061, R229	1012A-W-104(1)	PT	Accept
R063, R064	10HS-F10A*(1)	UT-0°, 45°	OD Geom.
R065	N8A-F1*(1)	UT-45°	NRI
R066	12S-F4R*(1)	UT-45°	OD Geom.
R070	N8A-F1*(1)	PT	Accept
R072	14A-S4BR*(1)	UT-45°	OD Geom.
R075	14A-S4BR*(1)	MT	Accept
R077	13S-S1*(1)	MT	Accept
R078	30A-S12*(1)	MT	Accept
R079	30A-S13*(1)	MT	Accept
R080	30A-S14*(1)	MT	Accept
R081	30A-S15*(1)	MT	Accept
R082	30A-S16*(1)	MT	Accept
R083	30A-S21*(1)	MT	Accept
R084	02K-F1*(1)	UT-45°	NRI
R095	02J-F1*(1)	UT-45°	ID & OD Geom.
R100	02J-F1*(1)	PT	Accept
R101	30A-S13*(1)	UT-0°, 45°	NRI
R102	30A-S16*(1)	UT-0°, 45°	NRI
R103	30A-S14*(1)	UT-0°, 45°	NRI
R104	30A-S12*(1)	UT-0°, 45°	ID Geom.
R105	30A-S15*(1)	UT-0°, 45°	NRI
R107	"B" Recirc Pump Studs(1)	UT-0°	NRI

Report No.	Component/Weld No.	Exam Method	Remarks
R110	220-57A Vlv Bolting <sup>(1)</sup>	VT-1	Accept
R111	220-58A Vlv Bolting <sup>(1)</sup>	VT-1	Accept
R112	1402-6A Vlv Bolting <sup>(1)</sup>	VT-1	Accept
R113	1402-9A Vlv Bolting <sup>(1)</sup>	VT-1	Accept
R114	3967-M-323.1 <sup>(3)</sup>	VT-3	No Ind
R115	3967-M-323 <sup>(3)</sup>	VT-3	No Ind
R116	3967-M-322 <sup>(3)</sup>	VT-3	No Ind
R117	3967-M-321 <sup>(3)</sup>	VT-3	No Ind
R118	3967-M-320 <sup>(3)</sup>	VT-3	No Ind
R119	3967-M-319 <sup>(3)</sup>	VT-3	No Ind
R120	3967-M-318 <sup>(3)</sup>	VT-3	No Ind
R121	3967-M-317 <sup>(3)</sup>	VT-3	No Ind
R122	3967-M-316 <sup>(3)</sup>	VT-3	No Ind
R123	3001A-M-105 <sup>(1)</sup>	VT-3	Accept
R124, R126	3001B-M-102 A & B <sup>(1)</sup>	VT-3, 4	No Ind
R125, R138	3001B-W-103 <sup>(1)</sup>	VT-3, 4	Accepted
R127	10AD-S8* <sup>(1)</sup>	PT	Accept
R128	02K-F1* <sup>(1)</sup>	PT	Accept
R129, R130, R131	N2B Nozzle-Vessel* <sup>(1)</sup>	UT-0°, 45°, 60°	NAD
R132	1003A-1* <sup>(2)</sup>	UT-0°, 45°	ID Geom.
R133, R145, R146	N8A Nozzle-Vessel* <sup>(1)</sup>	UT-0°, 45°, 60°	NAD
R134	03-F9* <sup>(1)</sup>	PT	Accept
R135	03-F10* <sup>(1)</sup>	MT	Accept
R136, R175	0308-W-101 <sup>(1)</sup>	VT-3, 4	No Ind
R137, R184	1403-W-102 <sup>(1)</sup>	VT-3, 4	Accept
R140	Rx Head Flange* <sup>(1)</sup>	MT	Accept
R141, R152, R157	Rx Head-Dollars Weld* <sup>(1)</sup>	UT-0°, 45°, 60°	NAD
R142	Rx Head-0° Merid* <sup>(1)</sup>	UT-0°	NAD
R143	Rx Head-180° Merid* <sup>(1)</sup>	UT-0°	Spot Ind **
R144, R153, R156	Rx Head Flange* <sup>(1)</sup>	UT-0°, 45°, 60°	NAD
R147, R163, R170	RPV 339° Vert. Seam * <sup>(1)</sup>	UT-0°, 45°	NAD
R148, R162, R169	RPV 99° Vert. Seam * <sup>(1)</sup>	UT-0°, 45°, 60°	ID Clad Roll
R149, R166	N3A Nozzle-Vessel* <sup>(1)</sup>	UT-0°, 60°	ID Clad Roll
R150	N8A Nozzle-Vessel* <sup>(1)</sup>	UT-IRS	Geom. reflect
R151, R167, R168	RPV-Sheel to Flange* <sup>(1)</sup>	UT-0°, 60°, 45°	NAD
R154, R158	Rx Head-0° Merid* <sup>(1)</sup>	UT-45°, 60°	ID clad ripple
R155, R159	Rx Head-180° Merid* <sup>(1)</sup>	UT-45°, 60°	ID Clad ripple
R160	03-F10* <sup>(1)</sup>	UT-0°, 45°	NRI
R161	03-F9* <sup>(1)</sup>	UT-0°, 45°	NRI
R164	32A-F13* <sup>(1)</sup>	MT	Accept
R165	N3A Nozzle-vessel* <sup>(1)</sup>	UT-IRS	NRI
R171	N3A Nozzle-vessel* <sup>(1)</sup>	UT-45°	NRI
R172	N4A Nozzle-vessel* <sup>(1)</sup>	UT-0°	Spot Ind **
R173, R174	N4A Nozzle-vessel* <sup>(1)</sup>	UT-60°, 45°	NAD
R176, R177, R214	0200-W-117 A & B <sup>(1)</sup>	VT-3, 4	Accepted
R178, R179, R180	3204F-W-101 A & B <sup>(1)</sup>	VT-3, 4	No Ind
R181, R182, R183	3204E-W-101 A & B <sup>(1)</sup>	VT-3, 4	No Ind
R185, R218, R249	1403-W-103 A & B <sup>(1)</sup>	VT-3, 4	No Ind
R186	1043B-M-301.2 <sup>(3)</sup>	VT-3	No Ind
R187	203-3A Vlv Body <sup>(1)</sup>	VT-1	Accepted

Report No.	Component/Weld No.	Exam Method	Remarks
R188	1001-68A Vlv Blting <sup>(1)</sup>	VT-1	Accepted
R189	1001-33A Vlv Blting <sup>(1)</sup>	VT-1	Accepted
R190, R191	1008A-W-201 <sup>(1)</sup>	VT-3, 4	No Ind
R192, R193	1008A-M-203 A & B <sup>(1)</sup>	VT-3, 4	No Ind
R194-R196, R298-R300	CRD Housing FLNG Blting <sup>(1)</sup>	VT-1	Accepted
R198	32A-F13 <sup>*(1)</sup>	UT-0°, 45°	ID Root Geom.
R199	32A-S5 <sup>*(1)</sup>	UT-45°	ID Root Geom.
R200	2305-1 <sup>*(2)</sup>	UT-0°, 45°	ID Root Geom.
R201	2305-2 <sup>*(2)</sup>	UT-0°, 45°	ID Root Geom.
R202	1012A-10 <sup>*(2)</sup>	MT	Accept
R203	1012A-10 <sup>*(2)</sup>	UT-0°, 45°	ID-OD Geom.
R204	23S-S7 <sup>*(1)</sup>	MT	Accept
R205	RPV-vessel skirt <sup>*(1)</sup>	MT	Accept
R206	32A-F16 <sup>*(1)</sup>	MT	Accept
R207	23S-S7 <sup>*(1)</sup>	UT-0°, 45°	ID-OD Geom.
R208	32A-F16 <sup>*(1)</sup>	UT-0°, 45°	ID-OD Geom.
R209, R210	1025-M-102 <sup>(1)</sup>	VT-3, 4	No Ind
R211-R213, R281	0200-W-113 A & B <sup>(1)</sup>	VT-3, 4	No Ind
R215, R216	3001B-M-101.2 <sup>(1)</sup>	VT-3, 4	No Ind
R217, R295	3001B-M-101.1 <sup>(1)</sup>	VT-3, 4	Accepted
R219	02A-S7 <sup>*(1)</sup>	PT	Accept
R220	2305-1 <sup>*(2)</sup>	MT	Accept
R221	2305-2 <sup>*(2)</sup>	MT	Accept
R222	1009A-6 <sup>*(2)</sup>	MT	Accept
R223	1009A-4 <sup>*(2)</sup>	MT	Accept
R224	1006A-8B <sup>*(2)</sup>	MT	Accept
R225	1009A-1 <sup>*(2)</sup>	MT	Accept
R226	1008A-13.1A <sup>*(2)</sup>	MT	Accept
R227	02H-F6 <sup>*(1)</sup>	PT	Accept
R228	02L-F6 <sup>*(1)</sup>	PT	Accept
R229	1012A-W-105 <sup>*(1)</sup>	PT	Accept
R230	N2C-Nozzle-vessel <sup>*(1)</sup>	UT-IRS	NRI
R231	N2B-Nozzle-vessel <sup>*(1)</sup>	UT-IRS	NRI
R232, R233, R234	N2C-Nozzle-vessel <sup>*(1)</sup>	UT-0°, 45°, 60°	NAD
R235	220-62B Vlv Body <sup>*(1)</sup>	VT-1	Accepted
R236	203-2A Vlv Body <sup>*(1)</sup>	VT-1	Accepted
R237	3953-M-310 <sup>(3)</sup>	VT-3	No Ind
R238	3953-M-312 <sup>(3)</sup>	VT-3	No Ind
R239	3953-M-314 <sup>(3)</sup>	VT-3	No Ind
R240	3953-M-315 <sup>(3)</sup>	VT-3	No Ind
R241	3953-M-316 <sup>(3)</sup>	VT-3	No Ind
R242	3953-M-317 <sup>(3)</sup>	VT-3	No Ind
R243	3953-M-317.1 <sup>(3)</sup>	VT-3	No Ind
R244	3967-M-324 <sup>(3)</sup>	VT-3	No Ind
R245	3967A-M-301 <sup>(3)</sup>	VT-3	Accepted
R246, R247	0200-M-110 <sup>(1)</sup>	VT-3, 4	No Ind
R248	RPV Internals <sup>*(1)</sup>	VT-1, UT	Accepted
R250	2304-M-203 <sup>(2)</sup>	VT-3	No Ind
R251	2304-M-204 <sup>(2)</sup>	VT-3	Accepted

Report No.	Component/Weld No.	Exam Method	Remarks
R252	2304-W-201(2)	VT-3	Accepted
R253	2304-M-205(2)	VT-3	Accepted
R254	3204B-M-201(2)	VT-3	No Ind
R255, R297	2307-W-207(2)	VT-3, 4	Accepted
R256	1052-M-303(3)	VT-3	Accepted
R257	1002-M-303(3)	VT-3	No Ind
R258	1003A-W-304(3)	VT-3	No Ind
R259	1005A-W-302.7(3)	VT-3	No Ind
R260	1005A-W-302.6(3)	VT-3	No Ind
R261	1005A-M-302.2(3)	VT-3	No Ind
R262	1005A-M-302.1(3)	VT-3	No Ind
R263	3950-M-310(3)	VT-3	No Ind
R264	3450-M-309(3)	VT-3	No Ind
R265	3950-W-308(3)	VT-3	No Ind
R266	3967-M-312.1(3)	VT-3	No Ind
R270, R271	0200-M-112(1)	VT-3, 4	Accepted
R272, R273	0220-M-111(1)	VT-3, 4	Accepted
R274	220-58B Vlv Body(1)	VT-1	Accepted
R275	220-62A Bolting(1)	VT-1	Accepted
R276	1005A-M-301.7(3)	VT-3	Accepted
R277	0200-W-114(1)	VT-3	No Ind
R278	0318A-W-201(2)	VT-3	Accepted
R279, R280	1012A-W-104(1)	VT-3, 4	Accepted
R282, R283	1202-M-104(1)	VT-3, 4	No Ind
R285	3958-M-301(3)	VT-3	No Ind
R286	1010-M-202.1(2)	VT-3	No Ind
R287, R288	1008A-M-202(2)	VT-3, 4	No Ind
R290	1402-25A Bolting(1)	VT-1	Accepted
R291, R292	0200-W-119 A & B(1)	VT-3, 4	No Ind
R293, R294	1012A-W-102(1)	VT-3, 4	Accepted
R296	3950-M-314(3)	VT-3	No Ind

\*Weld Number ID (1)IWB (2)IWC (1)IWD  
Note: IWF supports will fall under IWB, IWC, or IWD category.

\*\*No interference with angle exams - accepted

Terms

Accept - satisfactory condition  
ID Geom. - Inner diameter geometry  
OD Geom. - Outer diameter geometry  
NRI - No Recordabel Indication  
NAD - No Apparent Defects  
No Ind - No Indications

QUAD-CITIES UNIT 1 INSERVICE INSPECTION

GE'S EQUIPMENT ROSTER

TABLE II

ULTRASONIC INSTRUMENTS

Description	Manufacturer	Model	Serial No.
Automatic UT #1	Ultra image inter.	UI III	101368401
			201358401
			301368401
			401358401
Scope	SONIC MARK I	Sonic Mark I	732203
Scope	Kraut Kramer	CL 202	801203
Scope	Kraut Krmer	USL 32	26680-522
Scope	Kraut Kramer	USL 32	26680-521
Scope	Kraut Kramer	USL 38	211830

SEARCH UNITS

Description	Manufacturer	Model	Serial No.
Search Unit	KB-Aero tech	WSY-70-2 2.0 MHZ	A06666
Search Unit	KB-Aerotech	WSY-70-2 2.0 MHZ	A06668
Search Unit	KB-Aerotech	.375" x 5.0 MHZ	A28031
Search Unit	S16MA	TRCr 2 Aust-2.0MHZ	85-99
Search Unit	SWRI	SLIC-40	067
Search Unit	KB-Aerotech	28mm x 13mm-2.0MHZ	028494
Search Unit	Gamma	.375 x 5.0 MHZ	B07512
Search Unit	Gamma	.50 x 2.25 MHZ	KB2730

NOTE: Additional search units supplied by Commonwealth Edison



REFERENCE BLOCKS

Description	Manufacturer	Model	Serial No.
Ref. Block, SS	GE	ROMPAS	795398
Ref. Block, SS	GE	ROMPAS	795370
Ref. Block, SS	GE	ROMPAS	795371
Ref. Block, SS	GE	ROMPAS	795373
Ref. Block, 1" SS	GE	IIW	TS-1221

SURFACE EQUIPMENT

Description	Manufacturer	Model	Serial No.
Magnetic Yoke	Parker Research	B-30	1203

QUAD-CITIES UNIT INSERVICE INSPECTION

ISI PERSONNEL

TABLE III

The following General Electric personnel participated in the inspection as indicated:

NAME	MT	PT	UT	IGSCC**	OVERLAY**	FUNCTION
Alcantara, Ed		II	II			Examiner
Aker, Virgil	II	II	I	*		Ast. Examiner
Armes, Walter			I-S			NDE Helper
Bendele, Ronald	II	II	II	II		Examiner
Carlin, William		II	II	II		Examiner
DuBose, George	II	II	II	II	II	Examiner
Dummer, Brad	III	III	III	II		Supervisor
Edgel, Doug	II	II	II	II		Examiner
Evich, Mark	I	I	I	*		Ast. Examiner
Hart, Randy		II	II	II		Examiner
Lancaster, Jack			I			NDE Helper
Nash, Patrick	II	II	II	II		Examiner
O'Connor, Timothy						NDE Helper
Parr, Ronald	I	II	II	II		Examiner
Pietzak, Rick	III	III				Supervisor
Plotz, Craig			I-S			NDE Helper
Reczek, Edward			III	III		Supervisor
Russel, Dennis	II	II	I	*		Ast. Examiner
Sells, Daniel	II	II	II			NDE Helper
Trotter, Edward	II	II	II	*		Ast. Examiner
Worby, Mike			I			NDE Helper

\* Level I IGSCC Training for Master/Slave UT System

\*\* EPRI qualified on or after Sept. 10, 1985

TABLE III (cont'd)

The following CECO personnel participated in the inspection as indicated:

NAME	VT-1	VT-2	VT-3	VT-4	FUNCTION
Castro, Robert		II	II	II	Examiner
Crippes, Thomas		II			Examiner
Digrindakasis, Nick P.		II			Examiner
Do, Hien Q.		III			Examiner
Floming, Kevin M.	II				Examiner
Ford, James R.	II				QC Lead Examiner
Huizenga, Dave	II				Examiner
Knapp, Gary E.	II	II	II	II	Examiner
Koenes, John E.		II			Examiner
Medulan, Kenneth K.	II	II	II	II	Lead Examiner
Phippen, Robert	II				Examiner
Sack, Chris	II				Examiner
Schmidt, Albert J.	II				Examiner
Steiner, Mike	II				Examiner
Tucker, Roger	II				Examiner
Wagner, Bernard	II	II	II	II	Examiner

QUAD-CITIES UNIT 2 INSERVICE INSPECTION  
NDE PROCEDURES  
TABLE IV

PROCEDURE	REV.	DESCRIPTION
NDT-B-1	2	Magnetic Particle Examination for ASME Section XI Class IWB and IWC Components for Nuclear Stations.
NDT-C-2	15	Preservice and Inservice Ultrasonic Inspection of Similar and Dissimilar Metal Pipe Welds at Nuclear Stations.
NDT-C-10	10	Ultrasonic Inspection of the Inner Radius of the Nozzle-to-Vessel Junction at Nuclear Stations.
NDT-C-14	8	Ultrasonic Inspection of Pressure Retaining Bolting two inches or greater in diameter at Nuclear Stations.
NDT-C-27	2	Ultrasonic Inspection of DE-CLAD Feedwater Nozzle Inner BORE and RADIUS OF BOILER WATER REACTORS.
NDT-C-30-80	0	Ultrasonic Examination of Reactor Vessel Welds to NRC Reg. Guide 1.150 for Boiling Water Reactors.
NDT-C-31-80	0	Beam Spread and Refracted Angle Determination to NRC Reg. Guide 1.150 for Boiling Water Reactors.
NDT-C-37	0	Ultrasonic Examination of weld overlay repaired pipe weld joints.
NDT-D-2-80	5	Non-Aqueous Red Dye Liquid Penetrant Examination for Section XI class IWB and IWC components for Nuclear Stations.
VT-1-1	2	Visual examination - welds, pressure retaining bolting, and component internals.
VT-2-1	1	Visual examination - system hydrostatic and leak tests.
VT-3-1	1	Visual examination - component supports.
VT-4-1	1	Visual examination - snubbers, shock absorbers, spring and constant load type supports.

# FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS

As required by the Provisions of the ASME Code Rules

1. Owner Commonwealth Edison, P.O. Box 767, Chicago, Illinois 60690  
 (Name and Address of Owner)
2. Plant Quad Cities Nuclear Power Station, 22710 206th Ave North, Cordova, IL 61242  
 (Name and Address of Plant)
3. Plant Unit One 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 2-18-73 6. National Board Number for Unit NA
7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Press. Vessel 1	Babcock & Wilcox	610-0122-51-52	B0074093	NA
Recirculation 1	Dravo Corporation	NA	NA	NA
CRD 1,2	Grinnell	NA	NA	NA
RHRS 1, 2, 3	Southwest Res./Grinnell	NA	A-U0193224 B-U0193225 *	NA
RVCU 1	Grinnell/Mechanical Inc.	NA	NA	NA
Core Spray 1, 2	Grinnell/Mechanical Inc.	NA	NA	NA
HPCI 1, 2	Grinnell	NA	NA	NA
Main Steam 1	Grinnell	NA	NA	NA
Feedwater 1	Grinnell	NA	NA	NA
Diesel Gen. 3 Cooling Wtr.	Grinnell	NA	NA	NA

1 IWB 3 IWD

\* Heat Exchangers Only

2 IWC

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (back)

8. Examination Dates 1-14-86 to 3-28-86 9. Inspection Interval from 2-18-86 to 2-18-93

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See Note (1) Below

11. Abstract of Conditions Noted No Defects Were Found Per ISI ASME XI Schedule

12. Abstract of Corrective Measures Recommended and Taken NA

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date MAY 7 19 86 Signed COMMONWEALTH Edison By [Signature]  
Owner

Certificate of Authorization No. (if applicable) NA Expiration Date NA

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Illinois and employed by Westinghouse Electric Co. of  
Shelton Conn have inspected the components described in this Owners' Data Report during the period  
01-14-86 to 03-28-86 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owners' Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date May 8th 19 1986  
Floyd J. Rose Commissions N.B. 5578 ILL. 670  
Inspector's Signature National Board, State, Province and No.

(1) Approximately 34% of the required inspections on ISI class 1, 2, 3 were completed for the first period of the second 10 year inspection interval (approximately 17% for this outage). Refer to attached table I for operation cycle 8 list of examinations. Additional ISI class 1 stainless steel welds were examined ultrasonically per NRC's requirements. A leakage test was performed on the Reactor pressure vessel and on the recirculation system at the end of the refuel outage.