October 1, 2004

Mr. Christopher M. Crane, President and Chief Nuclear Officer Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3 - RELIEF REQUEST CR-26 FOR THIRD 10-YEAR INSERVICE INSPECTION INTERVAL (TAC NOS. MC3269 AND MC3270)

Dear Mr. Crane:

By letter dated May 4, 2004, (ML041320487), Exelon Generation Company, LLC (the licensee) submitted a request for relief from certain requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, for Dresden Nuclear Power Station, Units 2 and 3. The relief request, CR-26, concerns the surface and volumetric examinations conducted on certain system component welds including reactor vessel nozzle-to-shell welds performed during the third 10-year inservice inspection (ISI) interval where the inspection coverage was less than 90 percent.

The Nuclear Regulatory Commission staff has evaluated the licensee's submittal and finds that it is impractical for the licensee to comply with the requirements for which relief is requested, and the examination coverage of the accessible weld volume and the surface area provide reasonable assurance of structural integrity of the welds identified in the licensee's relief request. Therefore, the requested relief is granted pursuant to Section 50.55a(g)(6)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR) for the third ISI interval of Dresden Units 2 and 3. Granting such relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest given due consideration to the burden upon the licensee of imposing the requirements. Our safety evaluation is enclosed.

Sincerely,

/RA/

Anthony J. Mendiola, Chief, Section 2 Project Directorate III Division of Licensing Project Management Office of Nuclear Reactor Regulation

Docket Nos. 50-237 and 50-249

Enclosure: Safety Evaluation

cc w/encl: See next page

October 1, 2004

Mr. Christopher M. Crane, President Exelon Nuclear Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3 - RELIEF REQUEST CR-26 FOR THIRD 10-YEAR INSERVICE INSPECTION INTERVAL (TAC NOS. MC3269 AND MC3270)

Dear Mr. Crane:

By letter dated May 4, 2004, (ML041320487), Exelon Generation Company, LLC (the licensee) submitted a request for relief from certain requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, for Dresden Nuclear Power Station, Units 2 and 3. The relief request, CR-26, concerns the surface and volumetric examinations conducted on certain system component welds including reactor vessel nozzle-to-shell welds performed during the third 10-year inservice inspection (ISI) interval where the inspection coverage was less than 90 percent.

The Nuclear Regulatory Commission staff has evaluated the licensee's submittal and finds that it is impractical for the licensee to comply with the requirements for which relief is requested, and the examination coverage of the accessible weld volume and the surface area provide reasonable assurance of structural integrity of the welds identified in the licensee's relief request. Therefore, the requested relief is granted pursuant to Section 50.55a(g)(6)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR) for the third ISI interval of Dresden Units 2 and 3. Granting such relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest given due consideration to the burden upon the licensee of imposing the requirements. Our safety evaluation is enclosed.

Sincerely, /**RA**/

Anthony J. Mendiola, Chief, Section 2 Project Directorate III Division of Licensing Project Management Office of Nuclear Reactor Regulation

*SE dated 7/24/04

Docket Nos. 50-237 and 50-249

Enclosure: Safety Evaluation cc w/encl: See next page

DISTRIBUTION:

PUBLIC	PDIII-2 R/F	WRuland	MMitchell
AMendiola	PCoates	MBanerjee	
OGC	GHill (2)	ACRS	

ADAMS Accession Number: ML042300386

OFFICE	PM:PDIII-2	LA:PDIII-2	SC:EMCB-A	OGC	SC:PDIII-2
NAME	MBanerjee	PCoates	MMitchell	RHoefling	AMendiola
DATE	9/15/04	9/14/04	7/24/04	9/16/04	10/01/04

OFFICIAL RECORD COPY

Dresden Nuclear Power Units 2 and 3

cc:

Site Vice President - Dresden Nuclear Power Station Exelon Generation Company, LLC 6500 N. Dresden Road Morris, IL 60450-9765

Dresden Nuclear Power Station Plant Manager Exelon Generation Company, LLC 6500 N. Dresden Road Morris, IL 60450-9765

Regulatory Assurance Manager - Dresden Exelon Generation Company, LLC 6500 N. Dresden Road Morris, IL 60450-9765

U.S. Nuclear Regulatory Commission Dresden Resident Inspectors Office 6500 N. Dresden Road Morris, IL 60450-9766

Chairman Grundy County Board Administration Building 1320 Union Street Morris, IL 60450

Regional Administrator U.S. NRC, Region III 801 Warrenville Road Lisle, IL 60532-4351

Illinois Emergency Management Agency Division of Disaster Assistance & Preparedness 110 East Adams Street Springfield, IL 62701-1109

Document Control Desk - Licensing Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555 Senior Vice President, Nuclear Services Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Vice President of Operations - Mid-West Boiling Water Reactors Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Vice President - Licensing and Regulatory Affairs Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Director - Licensing and Regulatory Affairs Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Associate General Counsel Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

Manager Licensing - Dresden, Quad Cities and Clinton Exelon Generation Company, LLC 4300 Winfield Road Warrenville, IL 60555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

THIRD 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM

REQUEST FOR RELIEF NO. CR-26

EXELON GENERATION COMPANY, LLC

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

DOCKET NOS. 50-237 AND 50-249

1.0 INTRODUCTION

By letter dated May 4, 2004, Exelon Generation Company (EGC) LLC (the licensee), requested relief for Dresden Nuclear Power Station (DNPS), Units 2 and 3, from certain inservice examination requirements of the 1989 Edition of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, for the third 10-Year Inspection Interval of the Inservice Inspection (ISI) Program. This request was in regard to surface and volumetric examinations conducted on certain system component welds including reactor vessel nozzle-to-shell welds, during the third 10-Year ISI interval where the inspection coverage achieved was less than or equal to 90 percent. The licensee stated that the ASME Coderequired examination coverage of "essentially 100 percent" for the welds was impractical within the limits of the current plant design. Compliance with the examination requirements of ASME Code Section XI would require modifications of plant components to remove obstructions, redesign of plant systems, and replace components where geometry is inherent to component design. However, all components received, as a minimum, the required examination(s) applicable to the extent practical due to limited or lack of access available. The staff has evaluated the reduction in examination coverage pursuant to Section 50.55a(g)(6)(i) of Title 10 of the Code of Federal Regulations (10 CFR).

2.0 <u>REGULATORY EVALUATION</u>

Pursuant to 10 CFR 50.55a(g)(4), components (including supports) which are classified as ASME Code, Class 1, 2, and 3 shall meet the requirements, except the design and access provisions and the pre-service examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 120-month interval and subsequent intervals comply with the requirements in the latest Edition and Addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) twelve months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein.

Pursuant to 10 CFR 50.55a(g)(5)(iii), if the licensee has determined that conformance with certain ASME Code requirements is impractical for its facility, the licensee shall notify the Commission and submit, as specified in Section 50.4, information to support the determinations. Section 10 CFR 50.55a(g)(6)(i) states that the Commission will evaluate determinations under paragraph (g)(5) of this section, that ASME Code requirements are impractical. The Commission may grant such relief and may impose such alternative requirements as it determines is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

2.1 Regulatory Background

The applicable inservice inspection ASME Code edition of record for DNPS, Units 2 and 3, is the 1989 Edition of the ASME Code, Section XI.

For DNPS Unit 2, the third 10-Year Inservice Inspection Interval began on March 1, 1992, and ended on September 30, 2003. All scheduled Unit 2 ASME Code Section XI examinations were completed prior to September 30, 2003, with the exception of Examination Category B-A, reactor vessel shell welds, and Examination Category B-O, control rod drive housing welds, which were completed during the 2003 Unit 2 refueling outage (RFO). Approval to delay examinations was provided by the staff (References 1 and 2).

For DNPS Unit 3, the third 10-Year Inservice Inspection Interval began on March 1, 1992, and ended on October 31, 2003. All scheduled Unit 3 ASME Code Section XI examinations were completed prior to October 31, 2003, with the exception of Examination Category B-A, reactor vessel shell welds. Approval to delay examinations was provided by the staff in Reference 1. The remaining Examination Category B-A welds are scheduled to be completed during the upcoming Unit 3 RFO scheduled to begin on October 26, 2004.

3.0 TECHNICAL EVALUATION

3.1 ASME Code Components Affected

Code Classes:	Class 1 and 2
Code Edition:	1989 Edition of the ASME Code, Section XI Subarticles IWB-2500 and IWC-2500
Examination Categories:	B-A, B-D, B-M-1, C-B, and C-C
Item Numbers:	B1.30, B3.90, B3.100, B12.40, C2.21, and C3.20
Component Numbers:	Various, see Table CR-26.1 and CR-26.2
Examination Methods:	Volumetric and Surface Examination

3.2 <u>ASME Code Requirements</u> (as stated)

Subarticle IWB-2500 states in part "components shall be examined and tested as specified in Table IWB-2500-1." Table IWB-2500-1 requires a volumetric examination or a surface and volumetric examination be performed on the component based on Category and Item Number. The applicable examination area or volume and method required is as shown below from Table IWB-2500-1:

Examination Category	ltem Number	Examination Requirement/ Figure Number	Examination Method
B-A	B1.30	IWB-2500-4	Volumetric
B-D	B3.90	IWB-2500-7(a) IWB-2500-7(b)	Volumetric
B-D	B3.100	IWB-2500-7(a) IWB-2500-7(b)	Volumetric
B-M-1	B12.40	IWB-2500-17	Volumetric

Subarticle IWC-2500 states in part "components shall be examined and pressure tested as specified in Table IWC-2500-1." Table IWC-2500-1 requires a surface examination or a surface and volumetric examination be performed on the component based on Category and Item Number. The applicable examination area or volume and method required is as shown below from Table IWC-2500-1:

Examination Category	ltem Number	Examination Requirement/ Figure Number	Examination Method
C-B	C2.21	IWC-2500-4(b)	Surface & Volumetric
C-C	C3.20	IWC-2500-5(a) IWC-2500-5(b)	Surface

3.3 <u>ASME Code Requirement for which Relief is Requested</u> (as stated)

Entire volume or area required [to be examined] is defined by ASME Section XI Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1." Code Case N-460 states in part, "... when the entire examination volume or area cannot be examined ... a reduction in examination coverage ... may be accepted provided the reduction in coverage for that weld is less than 10%." DNPS invokes Code Case N-460 for use during the third 10-Year Inservice Inspection Interval.

NRC Information Notice 98-42, "Implementation of 10 CFR 50.55a(g) Inservice Inspection Requirements," termed the reduction in coverage of less than 10% to be "essentially 100 percent." Information Notice 98-42 states in part, "The NRC has adopted and further refined the definition of "essentially 100 percent" to

mean "greater than 90 percent"... has been applied to all examinations of welds or other areas required by ASME Section XI."

3.4 Impracticality of Compliance (as stated)

DNPS, Units 2 and 3, obtained Construction Permits CPPR-18 and CPPR-22 on January 10, 1966 and October 14, 1966, respectively. The piping systems and associated components were designed and fabricated before the examination requirements of ASME Section XI were formalized and published. Since this plant was not specifically designed to meet the requirements of ASME Section XI, full compliance is not feasible or practical within the limits of the current plant design.

Physical obstructions imposed by design, geometry and materials of construction are typical of vessel appurtenances and sacrificial shield, insulation support rings, structural and component support members, adjacent component weldments in close proximity, unique component configurations and dissimilar metal weldments.

3.5 <u>Burden Caused by Compliance</u> (as stated)

Compliance with the examination requirements of ASME Section XI would require modification of plant components to remove obstructions, redesigning of plant systems, and replace[ment of] components where geometry is inherent to component design.

3.6 <u>Licensee's Proposed Alternative to the ASME Code</u> (as stated)

In accordance with 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that the required "essentially 100%" coverage examination is impractical due to physical obstructions and limitations imposed by design, geometry and materials of construction for the components of Table CR-26.1 and Table CR-26.2 [as attached].

DNPS will continue to perform best effort examinations in order to achieve the maximum amount of coverage. Additionally, a VT-2 examination performed on the subject components during system pressure test per examination category B-P each refueling outage and category C-H each inspection period is performed.

3.7 <u>Licensee's Bases for Alternative</u> (as stated)

Improved examination techniques have been progressively upgraded during this interval to augment the required Section XI examinations. EGC has used the Electric Power Research Institute (EPRI), the Performance Demonstration Initiative (PDI), Inservice Inspection vendors and other industry sources to encourage the development of and provide an awareness of improved examination techniques to enhance coverage and flaw detection commensurate with radiation dose reduction.

EGC examination procedures are revised on a continuing basis to incorporate proven techniques for a higher level of safety and quality as they become available. The examinations and techniques used today exceed the examinations conducted in the past on each component.

All components received, as a minimum, the required examination(s) applicable to the extent practical due to the limited or lack of access available. The examinations conducted confirmed satisfactory results evidencing no unacceptable flaws present, even though "essentially 100%" coverage was not attained. EGC has concluded that if any active degradation mechanisms were to exist in the subject welds, those degradations [mechanisms] would have been identified in the examinations performed.

Based on the above, with our earlier design, the underlying objectives of the code [ASME Code] required volumetric and surface examinations have been met. The examinations were completed to the extent practical and evidenced no unacceptable flaws present. Additionally, a VT-2 examination performed on the subject components during system pressure test per examination category B-P each refueling outage and category C-H each period provides additional assurance that the structural integrity of the subject components is maintained.

4.0 STAFF EVALUATION

The ASME Code, Section XI, 1989 Edition, requires volumetric examination coverage of 100 percent of the reactor vessel outlet nozzle-to-shell weld. However, a reduction in examination coverage due to interferences of less than 10 percent is acceptable as provided by Code Case N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds," which has been approved by the NRC in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." During the third 10-Year ISI Interval, the reactor vessel nozzle-to-shell welds identified in Tables CR-26.1 and CR-26.2 in examination category B-D were ultrasonically examined resulting in volumetric coverage ranging from 20.06 percent to 83.6 percent in lieu of the ASME Code-required coverage in excess of 90 percent. The limitation in examination coverage was attributed to the configuration of the nozzle and the weld which restricted scanning. Also, the reactor vessel shell-to-flange weld in examination category B-A was examined to obtain volumetric coverage of 88 percent due to limitations in scanning resulting from flange configuration. For the core spray, relief valve, control rod drive, and high and low pressure coolant injection piping welds identified in Tables CR-26.1 and CR-26.2 in examination categories B-M-1, C-C and C-B, examination coverage ranged from 62.5 percent to 86.46 percent. The examination was restricted due to interference with the shear lug attachments. However, the licensee has examined the subject welds to the maximum extent practical by volumetric and surface examination.

The staff has determined that it is impractical to perform the ASME Code-required examination of the subject welds due to the configuration or other interference that prevented complete ultrasonic scanning of the weld. In order to comply with the ASME Code requirements, a design modification of the reactor vessel and the piping system including the supports would have to be performed which would impose a significant burden on the licensee. The staff, however, believes that the examination conducted for each weld provides reasonable

assurance of structural integrity of the weld since any significant pattern of degradation should have been detected during examination of the accessible weld volume. Further, in the unlikely event that a service-induced flaw in the weld propagates to the inside surface of the weld, it would most likely be detected during the ASME Code-required VT-3 visual examination of the reactor vessel interior surface, or if a flaw were to propagate from the inside to outside surface due to stress-corrosion cracking of the subject piping, the ASME Code-required VT-2 examination during the system leakage test will most likely detect it.

5.0 CONCLUSION

The staff has reviewed the licensee's submittal and concludes that compliance with the ASME Code requirements on volumetric and surface examinations for the reactor vessel nozzle-to-shell welds, the pipe-to-valve welds and the structural attachment welds identified in Tables CR-26.1 and CR-26.2 are impractical due to component configuration, material composition, and/or other obstructions. The staff has further determined that if the ASME Code requirements were to be imposed on the licensee, the nozzles and the piping including the structural attachments would have to be redesigned which would impose a significant burden on the licensee. The staff finds that the examination coverages of the accessible weld volumes and of the surface areas, provide reasonable assurance of the structural integrity of the welds identified in the relief request, and hence the integrity of the pressure boundary. Therefore, relief is granted from the ASME Code examination coverage requirements pursuant to 10 CFR 50.55a(g)(6)(i) for the third 10-Year Inservice Inspection Interval of DNPS, Units 2 and 3. The relief granted is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest given due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

6.0 <u>REFERENCES</u>

- Letter from NRC to Exelon "Exemptions from the requirements of 10 CFR 50.55a(g)(6)(ii)(A)(2), Inservice Examination of the Reactor Pressure Vessel," dated September 28, 2001.
- 2. Letter from NRC to Exelon, "Relief Request CR-25 for Third 10-Year Inservice Inspection Interval," dated July 1, 2003.

Attachments: 1. Table CR-26.1 2. Table CR-26.2

Principal Contributor: V. Rodriguez, NRR/DE/EMCB

Date: October 1, 2004

Table CR-26.1Unit 2 Components with Less than "Essentially 100 Percent" Coverage

Section XI Category & Item No.	Component System & Line	Component Number	Component Description	Condition Limiting Coverage	Examination & Coverage Percent
B-A B1.30	RPV SHELL	2-SC4-FLG	SHELL TO FLANGE WELD	REACTOR VESSEL TO FLANGE CONFIGURATION	UT 88
B-D B3.90	RPV NOZZLE	N1B-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.07
B-D B3.90	RPV NOZZLE	N2G-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2H-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2J-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2K-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N3A-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 62.5
B-D B3.90	RPV NOZZLE	N3B-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 62.5
B-D B3.90	RPV NOZZLE	N3C-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 62.5
B-D B3.90	RPV NOZZLE	N3D-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 62.5
B-D B3.90	RPV NOZZLE	N5A-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.06
B-D B3.90	RPV NOZZLE	N8-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 47.24
B-D B3.90	RPV NOZZLE	N18A-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.4

Section XI Category & Item No.	Component System & Line	Component Number	Component Description	Condition Limiting Coverage	Examination & Coverage Percent
B-D B3.90	RPV NOZZLE	N18B-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.4
B-D B3.90	RPV NOZZLE	N12-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 75.31
B-D B3.90	RPV NOZZLE	N20B-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 75.32
B-D B3.100	RPV NOZZLE	N8-1	NOZZLE INNER RADIUS SECTION	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 83.6
B-D B3.100	RPV NOZZLE	N18A-1	NOZZLE INNER RADIUS SECTION	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 83.6
B-D B3.100	RPV NOZZLE	N18B-1	NOZZLE INNER RADIUS SECTION	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 83.6
B-M-1 B12.40	MS ERV	2/3-203- 3B/C/D/E	VALVE BODY WELD	INTERNAL CAGE INTERFERENCE	RT 86.32
C-C C3.20	CRD 0318A-20	M-1152D- 1201	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE & BRANCH LINE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 82
C-C C3.20	CRD 0318B-20	M-1152D- 1251	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE & BRANCH LINE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 62.5
C-C C3.20	HPCI 2304-14	M-1151D-10	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 81.63
C-C C3.20	ISCO 1302-14	M-1163D-261	INTEGRALLY WELDED ATTACHMENT	PIPE CLAMP INTERFERENCE WITH SHEAR LUG ATTACHMENT	PT 75
C-C C3.20	ISCO 1303-12	M-1163D-254	INTEGRALLY WELDED ATTACHMENT	PIPE CLAMP INTERFERENCE WITH SHEAR LUG ATTACHMENT	РТ 78

Table CR-26.2Unit 3 Components with Less than "Essentially 100 Percent" Coverage

Section XI Category & Item No.	Component System & Line	Component Number	Component Description	Condition Limiting Coverage	Examination & Coverage Percent
B-D B3.90	RPV NOZZLE	N2A-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2C-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2F-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2H-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2J-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N2K-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 20.85
B-D B3.90	RPV NOZZLE	N3A-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 62.5
B-D B3.90	RPV NOZZLE	N3B-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 62.5
B-D B3.90	RPV NOZZLE	N9-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 44
B-D B3.90	RPV NOZZLE	N20A-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 75.32
B-D B3.90	RPV NOZZLE	N20B-2	NOZZLE TO VESSEL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 75.32
B-M-1 B12.40	MS ERV	2/3-203- 3B/C/D/E	VALVE BODY WELD	INTERNAL CAGE	RT 86.46
С-В С2.21	ISCO 1303A-8	8-8	NOZZLE TO SHELL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 44.56

Section XI Category & Item No.	Component System & Line	Component Number	Component Description	Condition Limiting Coverage	Examination & Coverage Percent
C-B C2.21	ISCO 1303B-8	8-9	NOZZLE TO SHELL WELD	NOZZLE, RADIUS BLEND AND WELD CONFIGURATION	UT 44.56
C-C C3.20	CRD 0409B-20	M-1188D- 1001	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 79.66
C-C C3.20	ISCO 1302-14	M-1199D-261	INTEGRALLY WELDED ATTACHMENT	PIPE CLAMP INTERFERENCE WITH SHEAR LUG ATTACHMENT	РТ 77.16
C-C C3.20	CORE SPRAY 1403-12	M-3409-26	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 88.24
C-C C3.20	CORE SPRAY 1404-12	M-3408-08	INTEGRALLY WELDED ATTACHMENT	PIPE CLAMP INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 78.72
C-C C3.20	CORE SPRAY 1404-12	M-3408-10	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 85.7
C-C C3.20	LPCI 1504-18	M-3414-10	INTEGRALLY WELDED ATTACHMENT	BOX GUIDE INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 85.71
C-C C3.20	HPCI 2304-14	M-1187D-86	INTEGRALLY WELDED ATTACHMENT	PIPE CLAMP INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 83.33
C-C C3.20	HPCI 2306-24	M-3412-03	INTEGRALLY WELDED ATTACHMENT	PIPE CLAMP INTERFERENCE WITH SHEAR LUG ATTACHMENT	MT 85-71