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SVP-01-084

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Quad Cities Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254 and 50-265

Subject: Relief Request CR-35, Inservice Inspection Program Relief regarding Examination Coverage for Third Inservice Inspection Program Interval

Quad Cities Nuclear Power Station is submitting this Relief Request for those ASME Section XI weld examinations performed during the 2nd Period of the Third Inservice Inspection (ISI) Program Interval where the coverage achieved was less than or equal to 90%. Specifically, this includes inspections performed during refuel outage Q2R15 and examinations credited to the 2nd Period during refuel outage Q1R16.

Relief is being requested in accordance with 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical due to plant design. The proposed relief request is provided as an attachment to this letter.

Should you have any questions concerning his letter, please contact Wally Beck at (309) 227-2800.

Respectfully,

Timothy J. Tulon
Site Vice President
Quad Cities Nuclear Power Station

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station

A047

RELIEF REQUEST NUMBER: CR-35
REVISION 0

COMPONENT IDENTIFICATION

Code Classes:	1 2
References:	Subarticle IWB-2500 Subarticle IWC-2500
Examination Categories:	B-D C-C, C-F-1 & C-F-2
Item Numbers:	B3.90 C3.20, C5.11 & C5.51
Description:	Volumetric and Surface Examination Coverage
Component Numbers:	Various, see TABLE CR-35.1 and TABLE CR-35.2 for examinations completed during the second (2^{nd}) period of this third (3^{rd}) interval

CODE REQUIREMENT

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	Item Number	Examination Requirements /Figure Number	Examination Method
B-D	B3.90	IWB-2500-7(a) IWB-2500-7(b)	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	Item Number	Examination Requirements /Figure Number	Examination Method
C-C	C3.20	IWC-2500-5(a)	Surface
C-F-1	C5.11	IWC-2500-7(a)	Surface & Volumetric
C-F-2	C5.51	IWC-2500-7(a)	Surface & Volumetric

CODE REQUIREMENT FROM WHICH RELIEF IS REQUESTED

Relief is requested from performing a complete coverage examination of the entire volume or area required. Entire volume or area required is defined by ASME Section XI Code Case N-460 entitled, "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%".

The NRC through Information Notice 98-42 entitled "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".

Relief is requested from performing an examination of "essentially 100%" of the required volume or area as applicable for the identified components in TABLE CR-35.1 and TABLE CR-35.2.

BASIS FOR RELIEF

Pursuant to 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 of the component.

Quad Cities Station Units 1 and 2 obtained Construction Permits February 15, 1967, CPPR-23 and CPPR-24 respectively. Quad Cities Station's 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, literal 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 welds. Typical drawings or sketches are depicted in FIGURE CR-35.1 through FIGURE CR-35.4.

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. Quad Cities Station has concluded that if any active degradation mechanisms were to exist in the subject welds, those degradations would have been identified in the examinations performed.

PROPOSED ALTERNATE EXAMINATIONS

With an earlier design coupled with the examinations completed to the extent practical and results evidencing no unacceptable flaws present, the underlying objectives have been met.

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.

Quad Cities Station maintains continuing alliances with the Electric Power Research Institute (EPRI), the Performance Demonstration Initiative (PDI), Inservice Inspection (ISI) 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.

No alternative provisions are proposed for this relief request, with the exception of, Quad Cities Station will continue to evaluate the development of new or improved examination techniques with the intent of applying these techniques where practical improvement on the examination of components can be achieved.

APPLICABLE TIME PERIOD

Relief is requested for the third ten-year interval of the Inservice Inspection Program for Quad Cities Station Unit 1 and Unit 2, which concludes February 17, 2003 and March 9, 2003 respectively.

TABLE CR-35.1

UNIT 1 COMPONENTS WITH LESS THAN "ESSENTIALLY 100%" COVERAGE

Section XI Category & Item No.	Component System & Number	Component Description	Condition Limiting Coverage	Exam & Coverage Percent
C-C C3.20	CRD 0318B-W-201A	Guide w/8 Lugs welded to pipe	Support bracket at end of lugs & Branch Conn.	MT 84.38
C-C C3.20	RHR 1010-W-205A	360 Degree Sleeve welded to pipe	Close proximity of sleeve to structural steel. **See sketch of inaccessible area, Fig.CR-35.1**	PT 66.66
C-C C3.20	RHRB 1012B-W-203A	VSC w/4 Lugs welded to pipe	Bolted pipe clamp was in a radioactive field of 1.2 Rem/Hour.	MT 86.12
C-C C3.20	HPCI 2304-W-204A	Guide w/8 Lugs welded to pipe	Support clamp welded to structural steel.	MT & PT 86.12

TABLE CR-35.2

UNIT 2 COMPONENTS WITH LESS THAN "ESSENTIALLY 100%" COVERAGE

Section XI Category & Item No.	Component System & Number	Component Description	Condition Limiting Coverage	Exam & Coverage Percent
B-D B3.90	RPV N10 NOZ	Vessel-Nozzle (SBLC)	Nozzle, radius blend & weld configuration. **See drawing of inaccessible areas, Fig.CR-35.2**	UT 58.52
B-D B3.90	RPV N3B NOZ	Vessel-Nozzle (Main Steam)	Nozzle, radius blend & weld configuration and adjacent RPV flange weld.	UT 29.92
B-D B3.90	RPV N3C NOZ	Vessel-Nozzle (Main Steam)	Nozzle, radius blend & weld configuration and adjacent RPV flange weld.	UT 29.92
B-D B3.90	RPV N3D NOZ	Vessel-Nozzle (Main Steam)	Nozzle, radius blend & weld configuration and adjacent RPV flange weld.	UT 29.92
C-C C3.20	RHRB 1012B-W-203A	VSC w/4 Lugs welded to pipe	Support clamp at end of lugs.	MT 88.1
C-C C3.20	RHRA 1024A-W-201A	VSC w/4 Lugs welded to pipe	Support clamp at end of lugs.	MT 85.6
C-C C3.20	CRD 0318B-W-201A	Guide w/8 Lugs welded to Pipe	Support bracket at end of lugs & Branch Conn. **See drawing of inaccessible areas, Fig.CR-35.3**	MT 89.2
C-C C3.20	RHRA 1008A-W-203A	VSC w/4 Lugs welded to pipe	Support clamp at end of lugs.	MT 88.1
C-C C3.20	RHRA 1012A-W-203.1A	HGR w/6 Lugs welded to pipe	Support clamp at end of lugs.	MT 89.3
C-F-1 C5.11	CSB 1404-40	Valve-Pipe (Dissimilar Metal)	Valve configuration. **See drawing of inaccessible areas, Fig.CR-35.4**	UT 88.5
C-F-1 C5.11	CSB 1404-41	Pipe-Valve (Stainless Steel)	Valve configuration.	UT 88.5
C-F-2 C5.51	RHRB 1016C-4	Elbow-Tee (Carbon Steel)	Branch Conn. Overlapped this weld by >35% of length.	MT-64.8 UT-60.2

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FIGURE CR-35.1
(Scanned Record from Q1R16)

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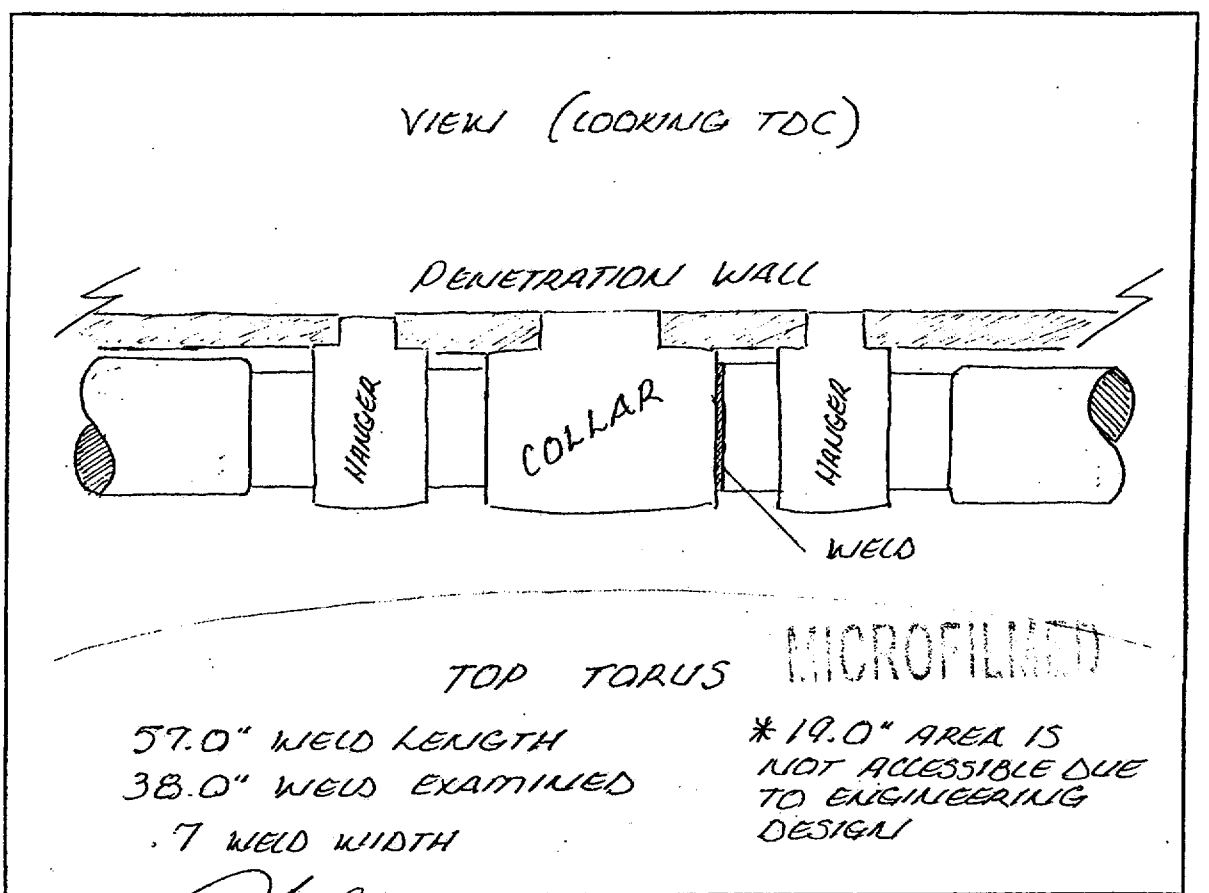
STATION: Quad Cities UNIT: 1 PAGE 3 OF 3
PROCEDURE/ REV.: NDT-D-2 REPORT NO.: Q1R16-003 D-016
SYSTEM: RHR COMPONENT: 1010-W-205A



EXAMINER:	K.L. Collins	LEVEL:	II	DATE:	10/13/00
REVIEWER:	D Schlecht	LEVEL:	III	DATE:	10/16/00
REVIEWER:	R.L. May Jr.	LEVEL:	ComEd III	DATE:	10/19/00
OTHER:	N/a			DATE:	N/a
ANII:	R.L. Collins			DATE:	10/24/00

Not to Scale

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FIGURE CR-35.2
(Scanned Record from Q2R15)

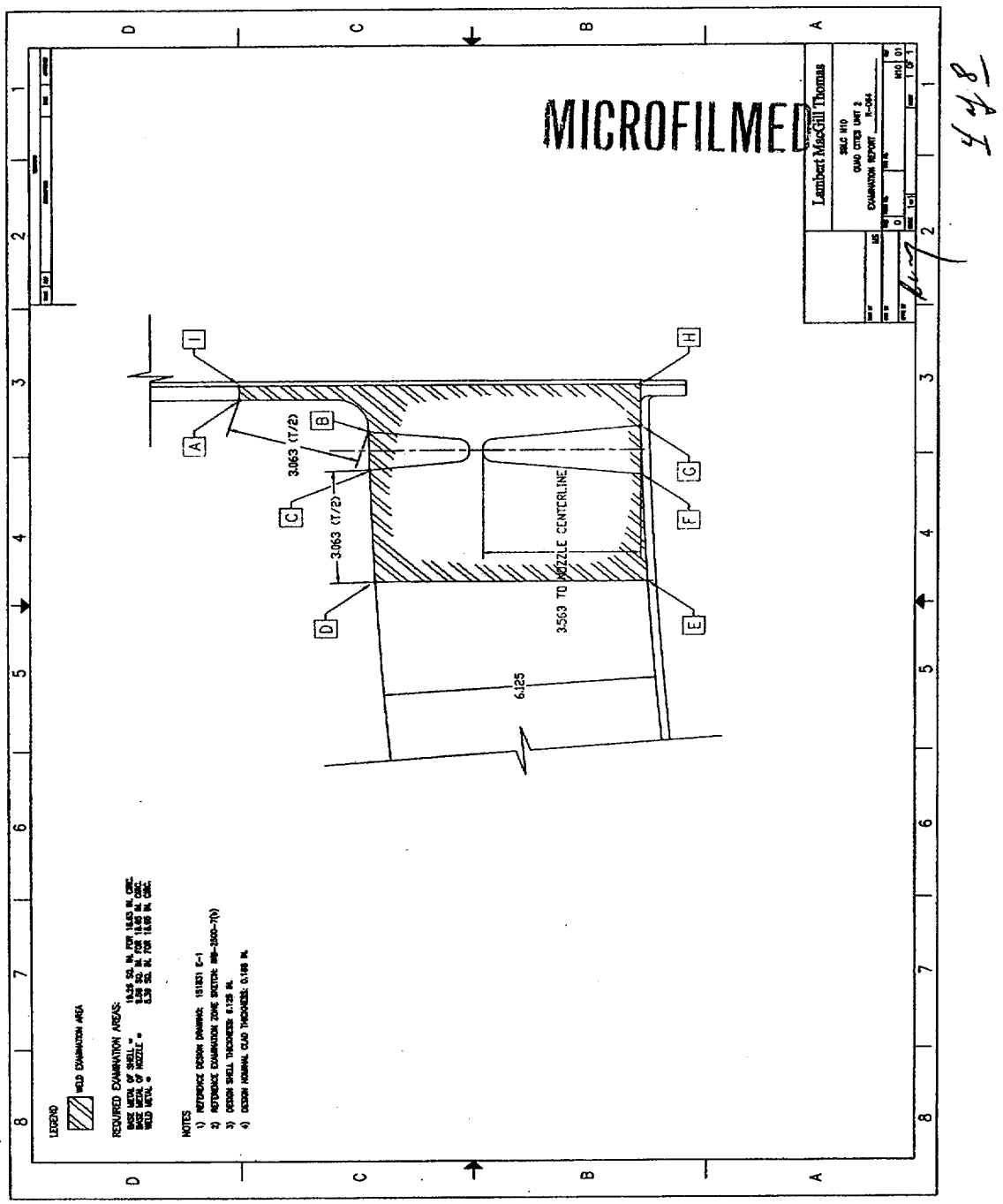

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FIGURE CR-35.3
(Scanned Record from Q2R15)

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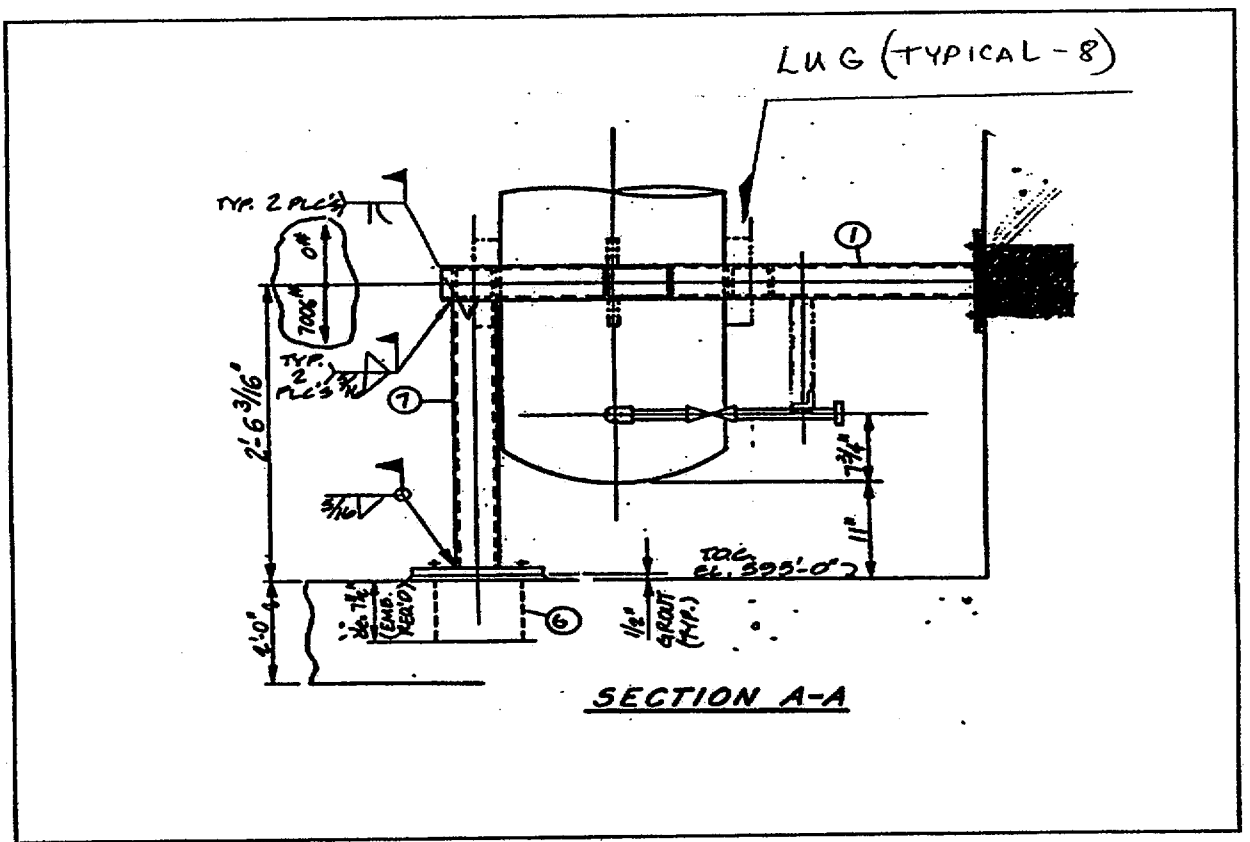
PROCEDURE/ REV.: NDT-B-1 / REV. 8 **REPORT NO.:** D-175

SYSTEM: CRD **COMPONENT:** 0318B-W-201A



EXAMINER:	TROY HUHE T. Huhe	**LEVEL:**	II	**DATE:**	01/31/00
REVIEWER:	WAYNE L. THOMAS	**LEVEL:**	III	**DATE:**	2/7/00
REVIEWER:	R.L. MAY	**LEVEL:**	COMED III	**DATE:**	02/07/00
OTHER:	N/A			**DATE:**	N/A
ANII:	M.E. Dallas			**DATE:**	2-8-00

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FIGURE CR-35.4
(Scanned Record from Q2R15)

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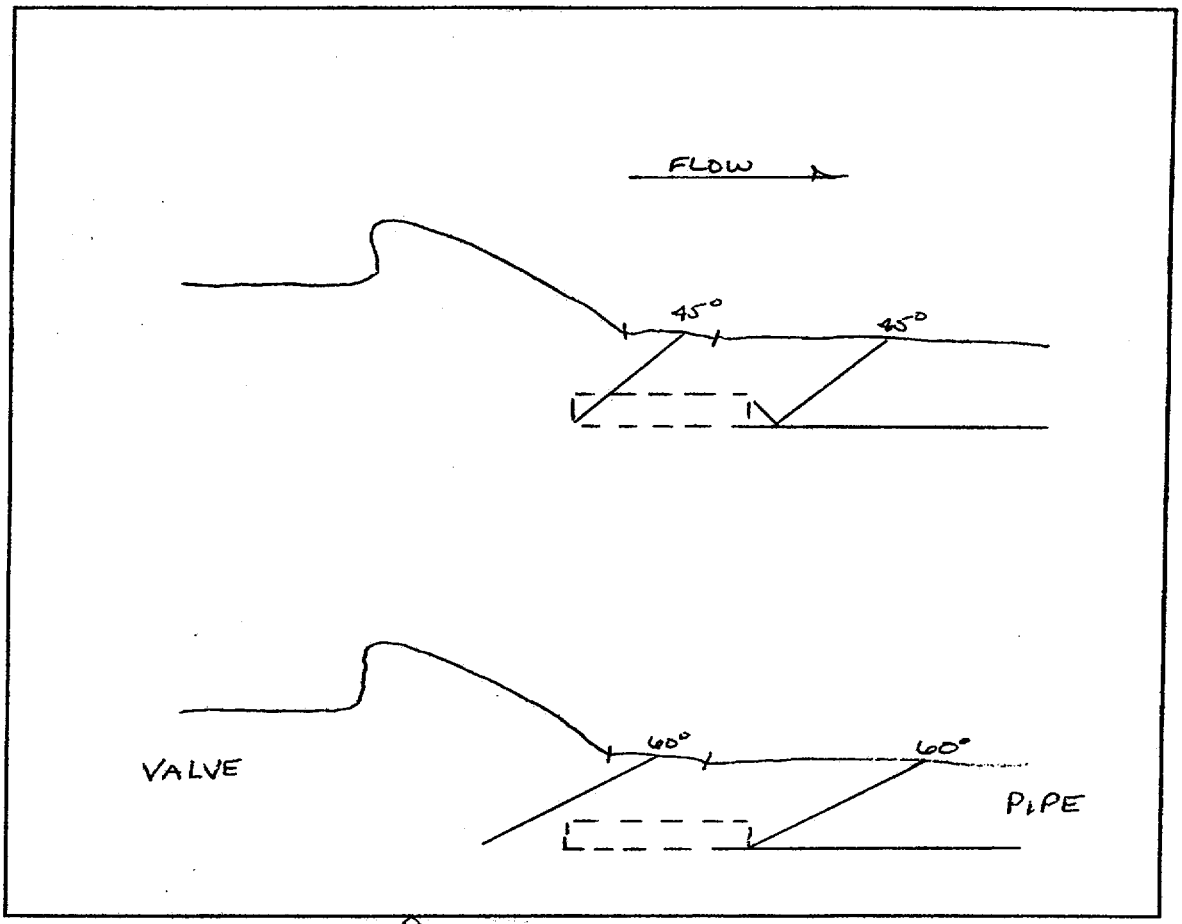
STATION: QUAD CITIES **UNIT:** Q2R15 **PAGE** 2 **OF** 2

PROCEDURE/ REV.: NDT-C-55/REV. 2 **REPORT NO.:** D-010

SYSTEM: CSB **COMPONENT:** 1404-40



EXAMINER: J. L. DEVERS **LEVEL:** II **DATE:** 01/13/00

REVIEWER: WILLIAM CARLIN **LEVEL:** III **DATE:** 1/21/00

REVIEWER: **LEVEL:** III **DATE:** 1-25-00

OTHER: ANII **DATE:** 1-27-00

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