

September 28, 2011

ATTN: Document Control Desk U. S. Nuclear Regulatory Commission Washington, DC 20555-0001 Serial No. 11-421 LIC/JG/R0 Docket No.: 50-305 License No.: DPR-43

#### DOMINION ENERGY KEWAUNEE, INC. KEWAUNEE POWER STATION INSERVICE INSPECTION PROGRAM FOURTH TEN-YEAR INTERVAL LIMITATION TO EXAMINATION RELIEF REQUEST NO. RR-G-5

Pursuant to the provisions of 10 CFR 50.55a(g)(5)(iii), Dominion Energy Kewaunee, Inc. (DEK) hereby requests NRC approval of the attached relief request (RR-G-5) for the Fourth Ten-year Interval of the Inservice Inspection (ISI) Program for Kewaunee Power Station (KPS). This submittal requests relief from inspecting those areas that either could not be examined in accordance with American Society of Mechanical Engineers (ASME) Section XI Code requirements or without significant modifications to the plant.

During the Fourth Ten-Year Interval (June 16, 2004 – June 16, 2014), for the first period (June 16, 2004 – June 16, 2007) and second period (June 17, 2007 – June 16, 2011), ISI examinations were performed on the required number of components in accordance with 10 CFR 50.55a and ASME Boiler and Pressure Vessel Code Section XI, 1998 Edition, 2000 Addenda. The required examinations were conducted in a manner that met Code requirements to the extent practical. There were areas where coverage of welds required by the Code could not be obtained. Where possible DEK substituted other welds to avoid situations where Code compliance could not be attained. This Relief Request applies to those areas where Code required examination criteria could not be completely met, and states the extent to which Code compliance was achieved.

A summary of Relief Request RR-G-5 (series) is provided in Attachment 1 to this letter and the detailed relief requests (RR-G-5-1 through RR-G-5-40) are enclosed.

If you have questions or require additional information, please feel free to contact Mr. Jack Gadzala at 920-388-8604.

Very truly yours,

J. Alan Price Vice President – Nuclear Engineering

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#### Attachment:

1. Kewaunee Power Station Fourth Ten-Year Interval Inservice Inspection Program (June 16, 2004 – June 16, 2014), 1st Period and 2nd Period, Relief Request No. RR-G-5 (Series Summary)

#### Enclosure:

Kewaunee Power Station Fourth Ten-Year Interval Inservice Inspection Program (June 16, 2004 – June 16, 2014), 1st Period and 2nd Period, Limitation to Examination, Relief Request Nos. RR-G-5-1 through RR-G-5-40

Commitments made by this letter: NONE

cc: Regional Administrator, Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road Suite 210 Lisle, IL 60532-4352

> Mr. Karl D. Feintuch Project Manager U.S. Nuclear Regulatory Commission One White Flint North, Mail Stop O8-H4A 11555 Rockville Pike Rockville, MD 20852-2738

NRC Senior Resident Inspector Kewaunee Power Station

Serial No. 11-421

#### **ATTACHMENT 1**

#### KEWAUNEE POWER STATION FOURTH TEN-YEAR INTERVAL INSERVICE INSPECTION PROGRAM (JUNE 16, 2004 – JUNE 16, 2014) 1ST PERIOD AND 2ND PERIOD

# **RELIEF REQUEST NO. RR-G-5 (SERIES SUMMARY)**

KEWAUNEE POWER STATION DOMINION ENERGY KEWAUNEE, INC.

## Kewaunee Power Station Fourth Ten-Year Interval Inservice Inspection Program Relief Request No. RR-G-5 (Series Summary)

#### **Component Identification**

Code Class: Class 1, Class 2

Examination Categories: Reference attached RR-G-5-1 through RR-G-5-40

Item Numbers: Reference attached RR-G-5-1 through RR-G-5-40

Description: Limited ASME Boiler and Pressure Vessel Code Section XI examinations during Code required examinations.

#### Code Requirements

Fourth Ten-Year Inservice Inspection Interval

First Period and Second Period

ASME Boiler and Pressure Vessel Code Section XI, 1998 Edition, 2000 Addenda

ASME Boiler and Pressure Vessel Code Section XI, Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, Section XI, Division 1.

Volumetric and surface examinations of welds and base material will be examined in accordance with the applicable Examination Category and Item Number and as required by the Kewaunee Power Station (KPS) Risk Informed Program.

#### Basis for Relief

During the Fourth Ten-Year Inservice Inspection Interval, Dominion Energy Kewaunee (DEK) used the requirements of ASME Boiler and Pressure Vessel Code Section XI, 1998 Edition, 2000 Addenda for examination of components. This edition of Section XI has specific requirements for which components will be examined and to what extent they will be examined.

During the performance of scheduled examinations, there were numerous instances where examiners reported some type of interference. DEK personnel evaluated every instance where this situation was reported, and when possible, alternative examination areas were selected to avoid having to examine restricted areas. This reduced the population of welds where a limited examination would be encountered. On welds where alternatives were not available, additional techniques were performed to increase coverage where possible, such as using steeper angle beam ultrasonic techniques or approaching the examination area from a different direction. In each case, this increased examination area coverage to the extent practicable and reduced the number of welds that were subjected to limited examinations.

Piping welds that were selected that still necessitated limited examination (i.e. less than or equal to 90% coverage) were those included in the KPS Fourth Ten-Year Inservice Inspection program to ensure examinations were performed on a representative sample of piping welds and piping welds that were not previously examined during the first 30 years of plant operation. Thus, stainless steel pipe-to-valve welds and stainless steel pipe to flange welds that were limited to 50% coverage were selected. Stainless steel welds that were limited to 50% coverage were examined as outlined and as referenced in Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. PDI-UT-2, Revision C is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available (i.e., pipe to valve or pipe to flange) and the flaw is located on the far side of the weld; however, guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not gualified for length sizing of axially oriented flaws regardless of location.

In order to gain additional access to the areas where limited examinations were encountered, major modification of the components would be required. These modifications could be extensive and impractical, up to and including complete component replacement. In cases where minor grinding would allow additional coverage, this was performed.

Major modification of components is not a practical approach, nor is it required to obtain additional coverage. Modifying systems and components to improve examination area coverage would result in additional radiation dose with marginal improvement in quality or safety. 10 CFR 50.55a(g)(1) states that plants such as KPS (construction permit issued before January 1, 1971) must meet the requirements, except design and access provisions and preservice examination requirements, set forth in ASME Boiler and Pressure Vessel Code Section XI, to the extent practical. Access has been improved over the years to many areas of the plant, further reducing those areas with limitations, but there is no requirement to make every area available for examinations.

For volumetric examinations, DEK examined the required areas to the extent practical using ultrasonic examination techniques. In many cases, no combination of ultrasonic angle beam examinations would cover the entire examination area. In each case, the maximum feasible coverage was obtained.

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DEK performed system leakage tests in accordance with the pressure test requirements of ASME Boiler and Pressure Vessel Code Section XI, Examination Categories B-P and C-H. These pressure tests covered every component within the Code boundaries established by DEK. Where leakage was noted at mechanical connections, it was corrected in accordance with maintenance procedures.

#### Proposed Alternative

DEK proposes to use the examination volume or surface coverage obtained during the first period and second period of the fourth interval examinations on the listed components in lieu of Code required volumes and surfaces (Reference RR-G-5-1 through RR-G-5-40 (enclosure)). The coverage obtained meets the intent of ASME Boiler and Pressure Vessel Code Section XI and provides an acceptable level of quality and safety.

#### **Conclusion**

The examinations performed during the first and second periods of the Fourth Ten-Year Inservice Inspection Interval were performed to the extent possible. Additional coverage was impractical, as modification of systems, structures, and components would have resulted in significant radiation exposure with minimal increase in the level of quality and safety.

#### Period for Which Relief is Requested

Relief is requested for the first and second periods (which ended June 16, 2007, and June 16, 2011, respectively) of the Fourth Ten-Year Inservice Inspection Interval at KPS, which ends June 16, 2014.

#### **Enclosure**

Relief Requests RR-G-5-1 through RR-G-5-40: Listing and sketches of Limited Examinations for the first and second periods of the Fourth Ten-Year Inservice Inspection Interval.

Serial No. 11-421

#### ENCLOSURE

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#### KEWAUNEE POWER STATION FOURTH TEN-YEAR INTERVAL INSERVICE INSPECTION PROGRAM (JUNE 16, 2004 – JUNE 16, 2014) 1ST PERIOD AND 2ND PERIOD

#### LIMITATION TO EXAMINATION RELIEF REQUEST NOS. RR-G-5-1 THROUGH RR-G-5-40

KEWAUNEE POWER STATION DOMINION ENERGY KEWAUNEE, INC.

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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-1

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

Reactor Vessel Outlet Nozzle to Vessel Weld RV-W7

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-D; Item No. B3.90

#### 4. Impracticality of Compliance:

0.88% of the Remote Ultrasonic Perpendicular Scan and 44.44% of the Remote Ultrasonic Parallel Scan for a combined remote ultrasonic scan of 22.66% of the Reactor Vessel Outlet Nozzle to Vessel Weld RV-W7 were inaccessible due to the Outlet protrusion and saddle geometry of the nozzle along the inside surface thus restricting Ultrasonic examination.

#### 5. Burden Caused by Compliance:

To provide for access to the 0.88% Perpendicular Scan and 44.44% of the parallel scan of the Reactor Vessel Outlet Nozzle to Vessel Weld RV-W7 would require modification of the original design of Reactor Vessel Outlet Nozzle.

### 6. Proposed Alternative and Basis for Use:

No alternative Code required ultrasonic examination is available due to the limited access.

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-1

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

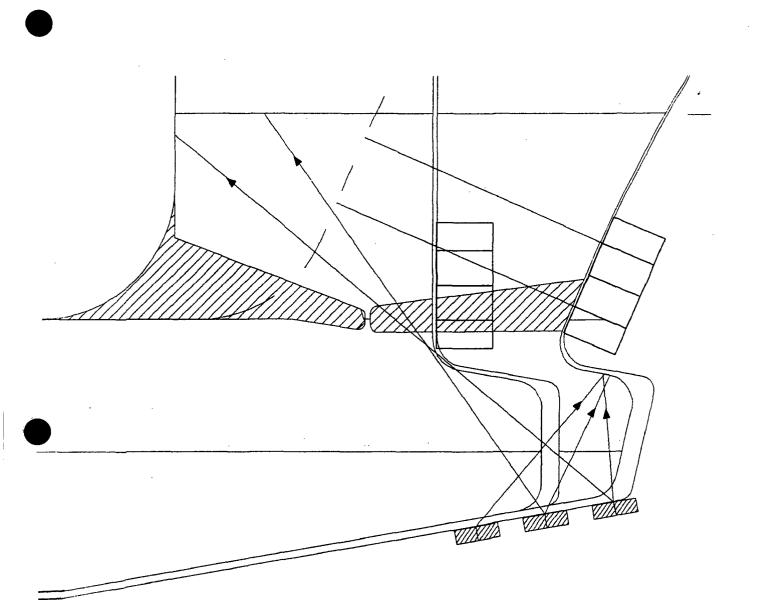
Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-20

#### 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.6). [ADAMS Accession No. ML061660437]

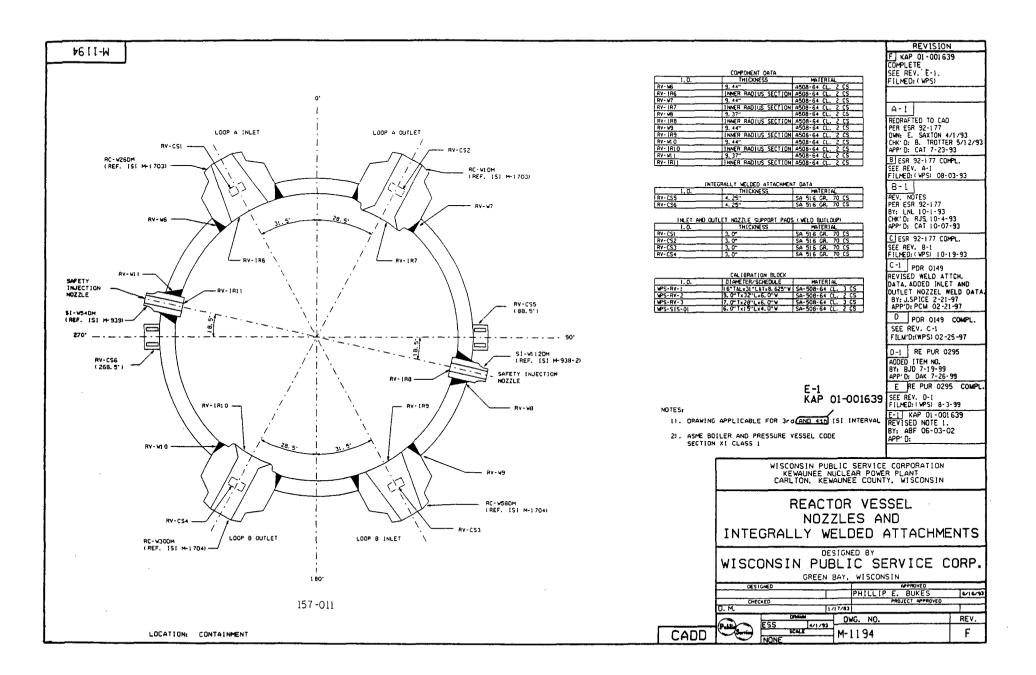
NO. OF INE STATUS	Outlet Nozzle to Shell @ 28.5         77.34 % Complete         ee Coverage Breakdown Sheet         DICATIONS       10         Code Allowable         N DOCUMENTATION
NO. OF INE STATUS	DICATIONS <u>10</u> Code Allowable
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	mbined) as perpendicular,
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PLANT NAME Kewaunee WesDyne RV-W7
WELD NO. RV-W7
International
COMPONENT Outlet Nozzle to Shell @ 28.5°
BEAM ANGLE BREAK DOWN
BEAM DIRECTION 45 Shear 45 L Single 45 L Dual Combined Bore
WELD VOLUME WELD VOLUME WELD VOLUME WELD VOLU
TAN Scan
Parallel 51.97 28.52 58.93 56.90 67.27 69.79
Combined Bore⋆
Perpendicular 99.68 98.5
AVERAGE 40.24 57.91 68.53 99.12



# Limitation: Nozzle protrusion and vessel saddle geometry

Figure 1 RV-W7



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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-2

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### 1. ASME Code Component Affected:

Reactor Vessel Outlet Nozzle to Vessel Weld RV-W10

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-D; Item No. B3.90

#### 4. Impracticality of Compliance:

0.88% of the Remote Ultrasonic Perpendicular Scan and 44.44% of the Remote Ultrasonic Parallel Scan for a combined remote ultrasonic scan of 22.66% of the Reactor Vessel Outlet Nozzle to Vessel Weld RV-W10 were inaccessible due to the Outlet protrusion and saddle geometry of the nozzle along the inside surface, thus restricting Ultrasonic examination.

#### 5. Burden Caused by Compliance:

To provide for access to the 0.88% Perpendicular Scan and 44.44% of the parallel scan of the Reactor Vessel Outlet Nozzle to Vessel Weld RV-W10 would require modification of the original design of Reactor Vessel Outlet Nozzle.

### 6. Proposed Alternative and Basis for Use:

No alternative Code required ultrasonic examination is available due to the limited access.

### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-2

#### 8. Precedents:

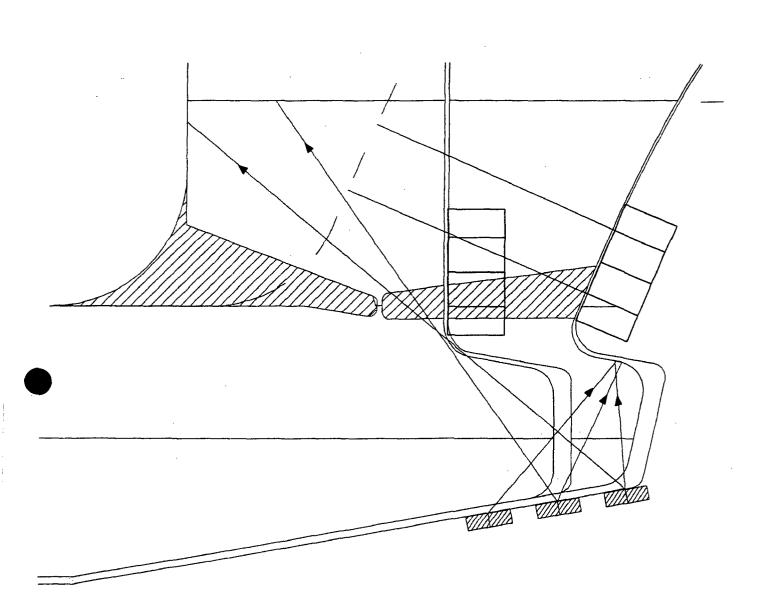
Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-21

#### 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.6). [ADAMS Accession No. ML061660437]

PLANT NAME	Kewaunee	•Unit	<b>1</b>
WELD NO.	RV-W10	COMPONENT	Outlet Nozzle to Shell @ 208
LIMITATIONS:	NO 🗌	YES X	77.34 % Complete See Coverage Breakdown Sheet
RESULT	Ŝ	NO. OF	INDICATIONS 5
NI		STATUS	Code Allowable
RI	<u>X</u>		
EXA	M DOCUMENTATION	INDICAT	TION DOCUMENTATION
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		WELD	VOLUME	WELD	VOLUME	WELD	VOLUME	WELD	VOLUME						
	TAN Scan														
	Parallel	51.97	28.52	58.93	56.90	67.27	69.79								
	<b>Combined Bore⋆</b>														
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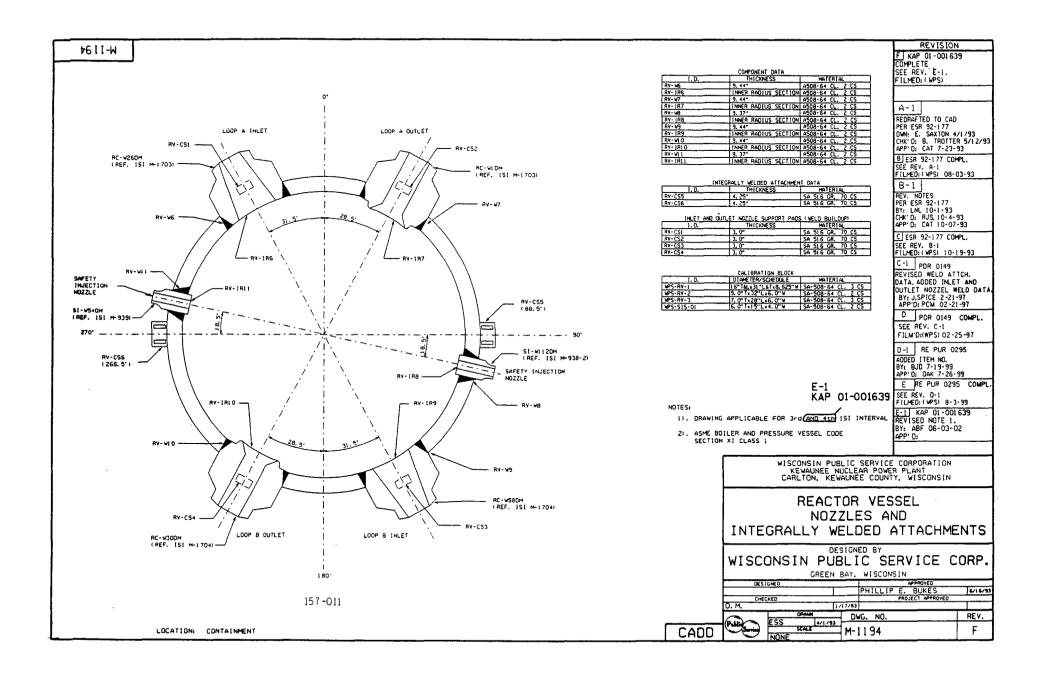
Limitation: Nozzle protrusion and vessel saddle geometry

Figure 1 RV-W10









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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-3

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### 1. ASME Code Component Affected:

Residual Heat Exchanger AHRS1-1A Shell Circumferential Weld AHRS1-W1

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

### 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-A; Item No. C1.10

#### 4. Impracticality of Compliance:

71.72% of the Residual Heat Exchanger Shell Circumferential Weld AHRS1-W1 was inaccessible due to configuration of the Residual Heat Exchanger Flange to Shell, two (2) Welded Supports and the 8" Inlet Nozzle and the 8" Outlet Nozzle thus restricting Ultrasonic Examination.

### 5. Burden Caused by Compliance:

To provide for access to the 71.72% of the Shell Circumferential Weld AHRS1-W1 would require modification from the Original Design of the Residual Heat Exchanger.

### 6. **Proposed Alternative and Basis for Use:**

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the first and second periods of the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for evidence of leakage.

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-3

#### 7. Duration of Proposed Alternative:

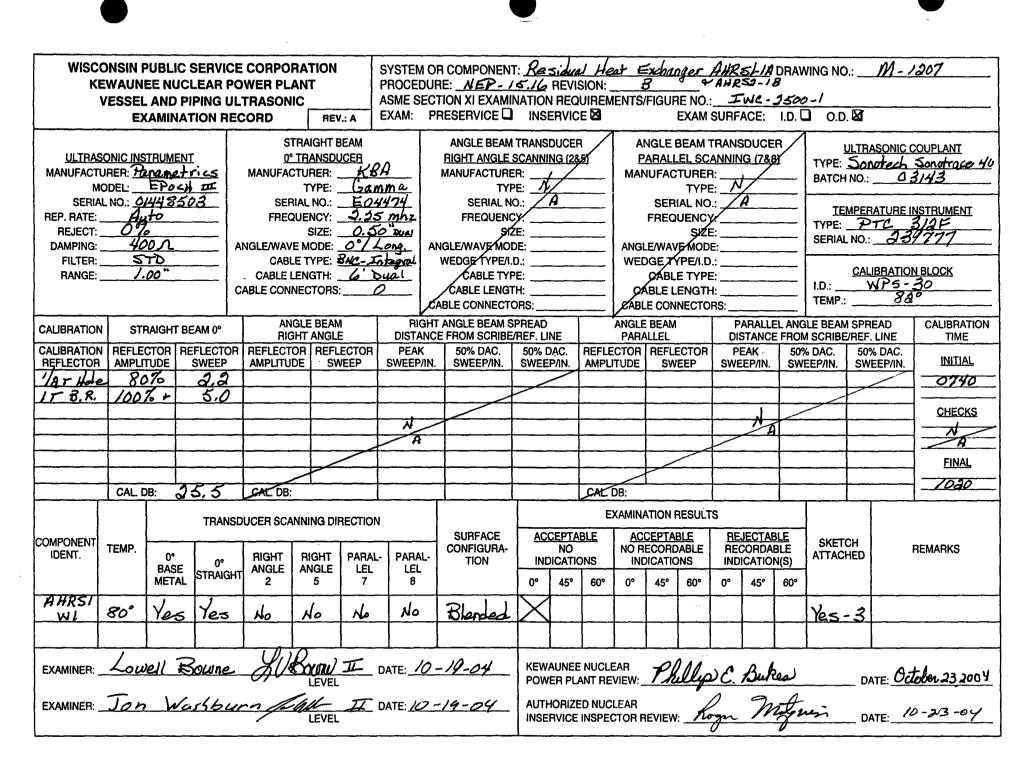
4th Ten-Year Interval June 16, 2004 - June 16, 2014

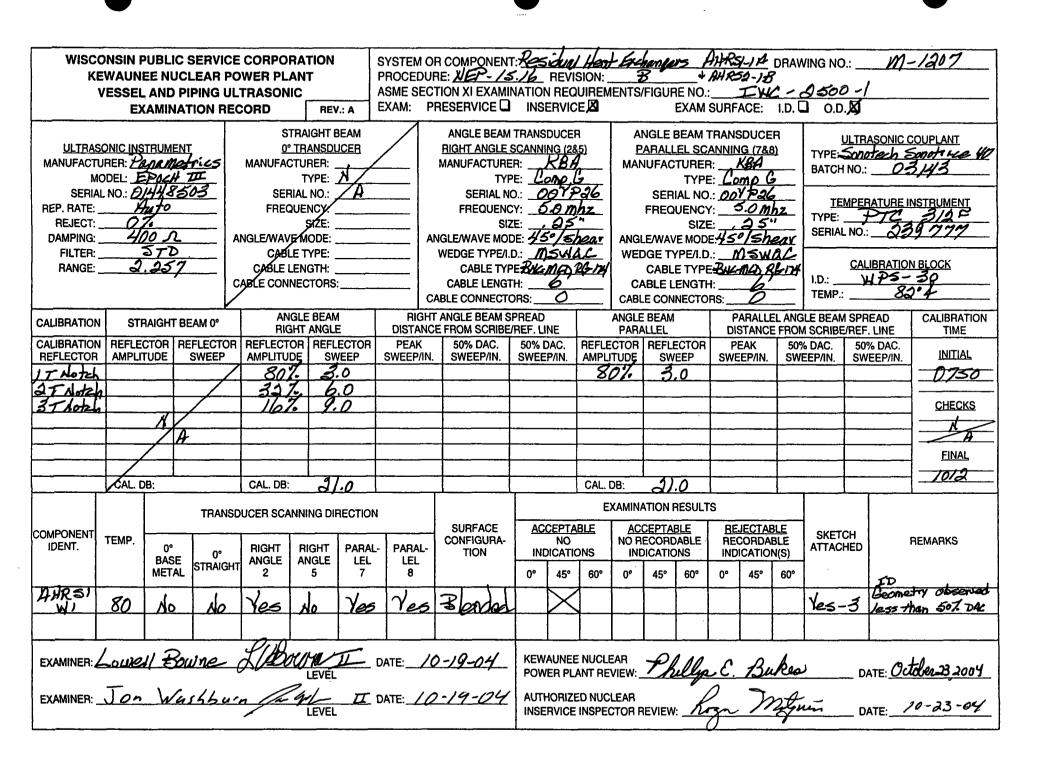
#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-8

#### 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.11). [ADAMS Accession No. ML061660437]

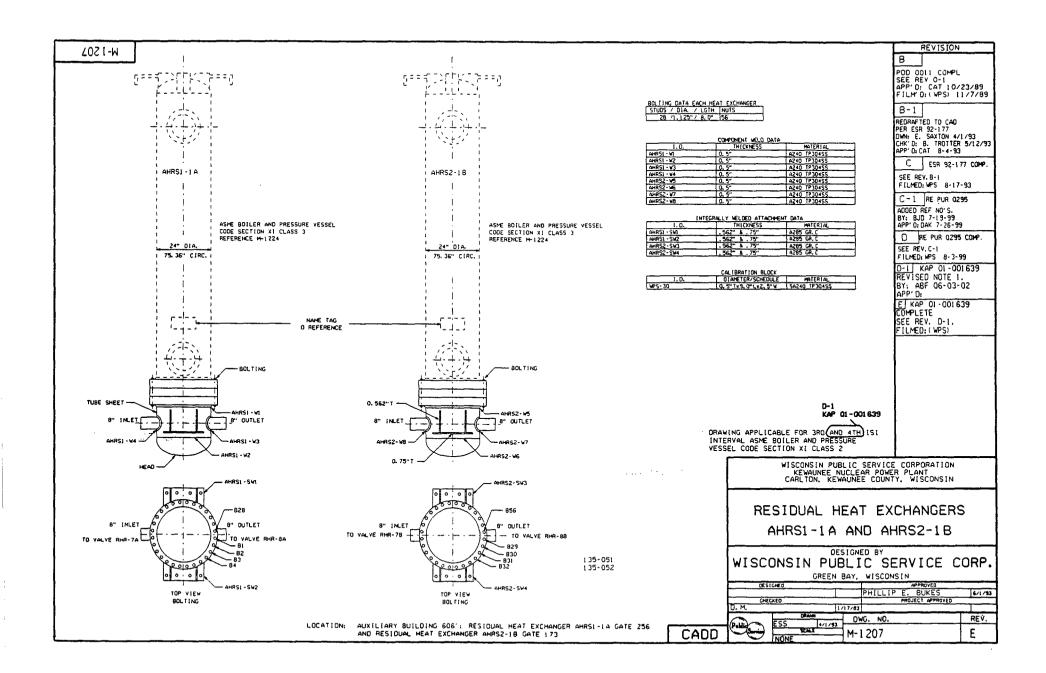




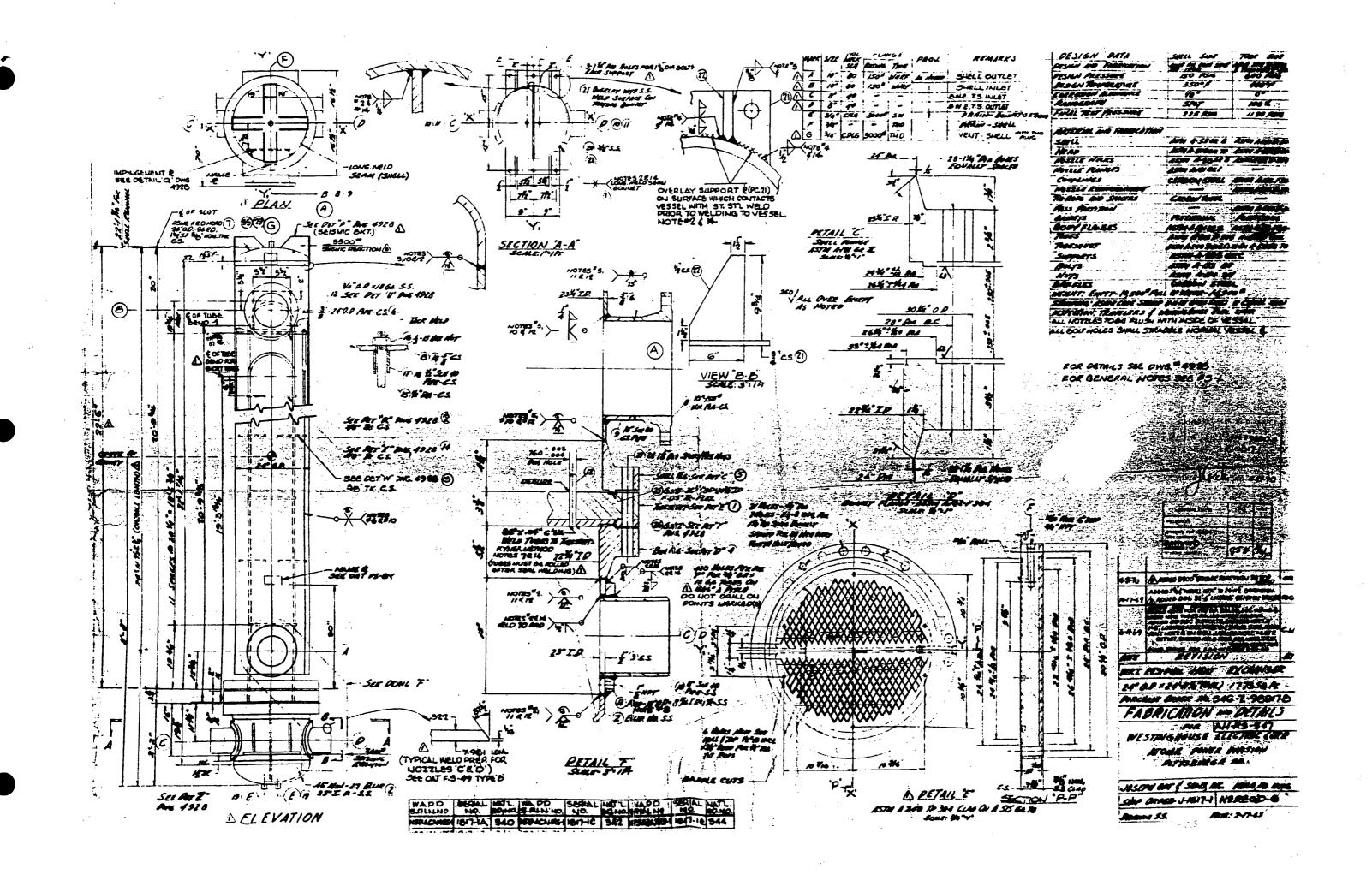
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	D:: M-1207	U
COMPONENT	IDENTIFICATION: AHRSI - WI PROCEDURE: NEP-15.16 REVISION	:_ <u>B</u>
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EXAMINER:	Jon Washburn And II DATE: 10/19/09 LEVEL	<u>~</u>
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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-4

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

Regenerative Heat Exchanger Tube Sheet to Shell Circumferential Weld ARG-W10

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-A; Item No. C1.30

### 4. Impracticality of Compliance:

16% of the Regenerative Heat Exchanger Tube Sheet to Shell Circumferential Weld ARG-W10 was inaccessible due to a rigid support clamp on the Regenerative Heat Exchanger thus restricting ultrasonic examination.

### 5. Burden Caused by Compliance:

To provide for access to the 16% of the Head Circumferential Weld ARG-W10 would require removal of the rigid support clamp. The Regenerative Heat Exchanger is located in a radiation field of approximately 1R-2R per hour. Total man rem would be expected to approach approximately 2 rem for removal and replacement of the rigid support clamp.

### 6. **Proposed Alternative and Basis for Use:**

No alternative Code required Ultrasonic examination is available due to the limited access unless the rigid support clamp is removed. VT-2 Examinations were performed during the first and second periods of the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda:

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-4

Table IWC-2500-1; Examination Category C-H; Item C7.10 for evidence of leakage.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-64 for similar Regenerative Heat Exchanger Weld ARG-W11

#### 9. References:

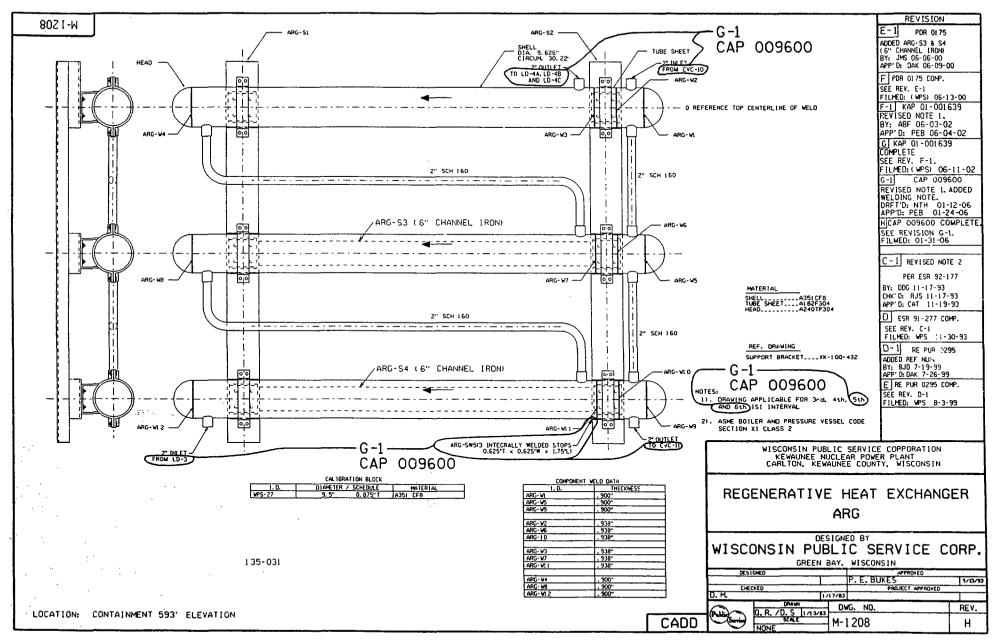
- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.11). [ADAMS Accession No. ML061660437]

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT VESSEL AND PIPING ULTRASONIC								SYSTEM OR COMPONENT: <u>REGENERATIVE HEAT EXCHANGER ARG</u> DRAWING NO.: <u>M-1208</u> PROCEDURE: <u>NEP-15.17</u> REVISION: <u>A</u> ASME SECTION XI EXAMINATION REQUIREMENTS/FIGURE NO.: <u>IWC-2500-2</u>												8			
			ATION							RESERVICE						EXAM					.D, 🛛		
MANUFACTU	odel: 📕	na Ac POCH	trics I		0° ] MANUFAC1	TYPE:	JCER AEROT GAMM	AHP			SCANN R: E: <u>(2)</u>	KBA	(5) •.6	P	ARALI	BEAM	ANNIN R:	IG (7&	<u>8)</u>		: Sance		COUPLANT Sono TRALE 40 143
SERIA REP. RATE: _ REJECT: _ DAMPING: _ FILTER:	400	FD % OHM		A	FREQU	ENCY: SIZE: MODE:		NHZ		SERIAL NO FREQUENC SIZ IGLE/WAVE MOI WEDGE TYPE/I.	:Y: :E: <b>.3</b> 7 :DE:	1.5 M 15"   .3 45°L	HZ 75"	ANGI	FREQ	IAL NO UENC SIZE /E MOD YPE/I.D	/: E: <u>. 374</u> E:4	1.5N */.31 15°L	1 <i>H Z</i> 5"	TYP	: <b>P</b>	ATURE II TC : Z 39	
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CALIBRATION REFLECTOR	AMPL		REFLECT SWEE		REFLECTO AMPLITUD		ECTOR	PEAK SWEEP/		50% DAC. SWEEP/IN.		DAC. EP/IN.	REFLE AMPL		CTOR REFLECTOR				% DAC. VEEP/IN	6 DAC. 509 EEP/IN. SW		INITIAL 0855	
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	CAL.	DB: 4	49.0		CAL. DB:	64.	0				<u></u>		CAL.	DB: 55.9					<del></del>		<del>_</del>		
COMPONENT IDENT.	TEMP.	0°		NSD	UCER SCAN	NING DI			_	SURFACE CONFIGURA-	A	CEPTA NO		AC	CEPTA ECORC	BLE	RE	JECTA CORDA	BLE		ETCH CHED		REMARKS
		BAS MET				ANGLE 5	LEL 7	LEL 8		TION	1N 0°	DICATIO 45°	5NS 60°	INC 0°	45°	ONS 60°	IND 0°	ICATIO 45°	N(S) 60°	-			
AR6-6010	72°F	וא	a Ye.	s	Yes	<u>Ye s</u>	Yes	465		FLUSH	$\geq$	$\mathbb{X}$								Ye	s-3		
EXAMINER:	In	ļ	-	2	}	LEVEL	l	DATE:	/0	/27/04	104 KEWAUNEE NUCLEAR POWER PLANT REVIEW: Thillip C. Bukes DATE: October 28,2004										ober 28,2004		
EXAMINER: _	LEVEL								v/A	AUTHORIZED NUCLEAR INSERVICE INSPECTOR REVIEW: <u>Logo</u> <u>Motjun</u> DATE: <u>10-28-04</u>													

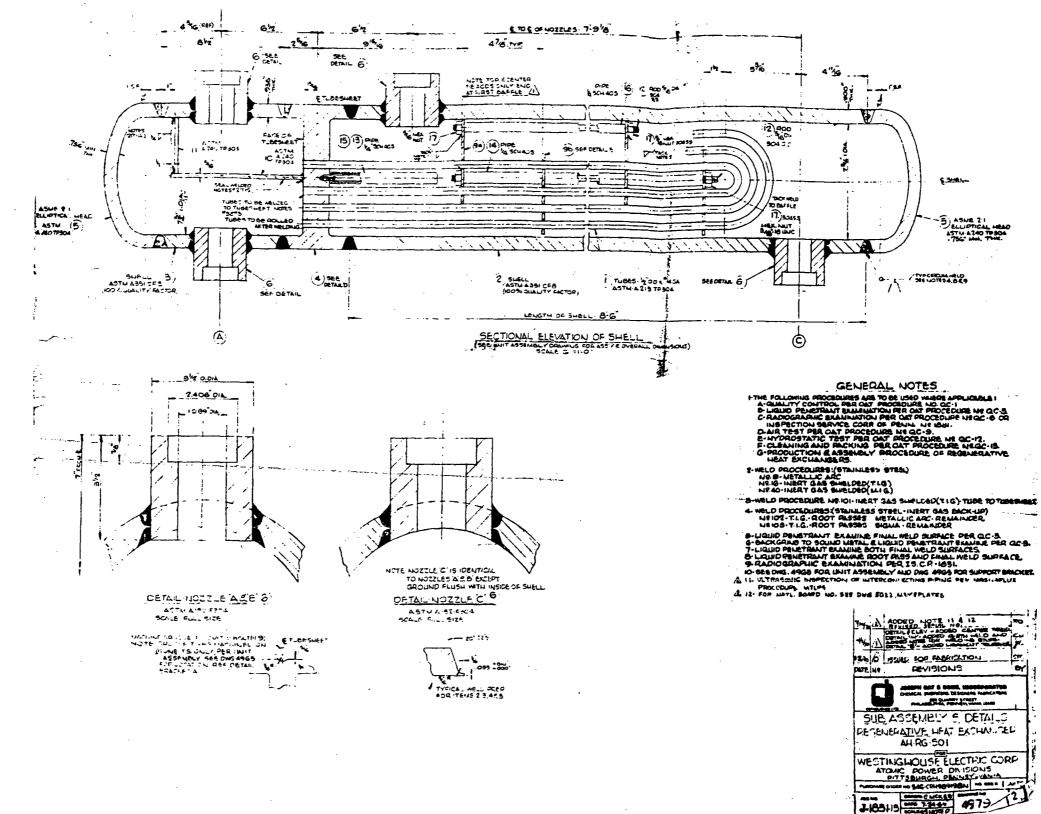
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	OMPONENT: REGENERATIVE HEAT EXCHANGER ARG
DRAWING NO.	M-1208
COMPONENT	IDENTIFICATION: <u>ARG ماناه</u> PROCEDURE: <u>NEP -15.17</u> REVISION:
ULTRASONIC:	LIQUID PENETRANT: MAGNETIC PARTICLE: VISUAL:
EXAMINER:	My Elm II DATE: 10/27/04 LEVEL
EXAMINER:	DATE:
	ARG-W1D



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# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-5

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

# 1. ASME Code Component Affected:

Residual Heat Exchanger AHRS1-1A Head Circumferential Weld AHRS1-W2

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-A; Item No. C1.20

# 4. Impracticality of Compliance:

75.0% of the Residual Heat Exchanger Head Circumferential Weld AHRS1-W2 was inaccessible due to configuration of the Residual Heat Exchanger 2 Welded Supports and the 8" Inlet Nozzle and the 8" Outlet Nozzle thus restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 75.0% of the Head Circumferential Weld AHRS1-W2 would require modification from the Original Design of the Residual Heat Exchanger.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the first and second periods of the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for evidence of leakage.

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-5

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-9

#### 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.11). [ADAMS Accession No. ML061660437]

(				UT	Calibrati	on	ninatio	n								
Domi	inion'	Site/Unit:	KPS	/ 1		Proce	dure:	NE	P-15.16 Rev.	3		Outage No	o.:	K1R30		
	Sun	nmary No.:	K1	.C1.20.002		Procedure	Rev.:		3	_	-	Report No	o.: U	T-09-006	;	
	v	Vorkscope:		ISI		Work Orde	r No.:	к	W100274984		_	Pag	e: 1	of	3	
Code:	A	SME Sect. >	(I 98 Ed/00 Add	Cat.	/Item:	C-A/C1.20	)		Location:		AUX		ING			
Drawing No.:	_		M-1207		Description	RESIDUAL		– HANGEF	RAHRS1-1A	HEAD CIR	CUMFER	ENTIAL WELD				
System ID:	RHR - RE	ESIDUAL H	EAT EXCHANGER	S AHRS1-1A AND AHR	RS2-1B			<del></del>								
Component ID	: M-1207 /	AHRS1-W2	. / C1.20					Size/L	ength: 2	4"/75.36"	-	Thickness/Dian	neter:	0.50"/24.	.0"	
Limitations:		ched limitat	ion sheet						Start	Time:	10:32	Finish	 Time:	10:42	·	
	Instrur	nent Settin	<u>ns</u>	 S	earch Unit				 							
Serial No.:	motrai	04022	-	Serial No.:	01RNM9		Cal. Checks	Time	Date			Orientated Se				
Manufacturer:		PANAM	ETRICS	Manufacturer:	KRAUTKR		Initial Cal.	07:35	09/22/2009	Calibra Refle		Signal mplitude %	Sweep Division	Dep	th	
Model:	······	EPO	CH 4	Size: 0.25"	Shape:	ROUND	Inter. Cal.		09/22/2009	1/2	т	80%	3.0	.20	1"	
Delay:	5.132"	Range:	0.681"	Freq.: 5.0 MHZ	Style:	FDEP	Inter. Cal.		09/22/2009	1T E	8W	>100%	7.4	.50 <sup>-</sup>	1"	
M'tl Cal/Vel:	0.2308	Pulser:	Square	Exam Angle:	0 # of Eler	ments: DUAL	Inter. Cal. Final Cal.	N/A	09/22/2009					-		
Damping:	400 ohms	<b>`</b>	0%		LONGITUNDIN		L									
Rep. Rate:	Auto	Freq.:	5.0 Mhz	Measured Angle:	0	<u> </u>		Coupla						1		
Filter:	3-6 Mhz Max	Mode: Other:	Fullwave N/A	Wedge Style:	N/A		Cal. Batch:		07143	·	Circumferential Orientated Search Unit					
Voltage: Ax. Gain (dB):			ain (dB): N/A	 Sear	rch Unit Cable				RACE 40 ECH INC.	Calibration Signal Reflector Amplitude %			Sweep Division	Dep	oth	
10 Screen			Depth		C To Intergral:	RG-174				N/A			<u></u>			
Linearity Repo			-09-016	Length: 6'		0	Exam Batc Type:		07143 RACE 40							
Lineanty Repo		ration Bloc			-				ECH INC.	·		<u> </u> .		-		
Cal. Block No.		WPS		Upstream 🔽 Dow	nstream 🔽 Sc	an dB: 49.7	·			·	<u> </u>	eference/Simulator Block				
Thickness	0.5"	Dia.:	0	cw []	ccw∏ so			erence		Gain	Refe	1				
Cal. Blk. Temp	p. 68 Te	mp. Tool:	267092	Exam Surface:		)	Serial No.:		08-4346	dB		Signal Amplitude %	Sweep Division	Dep	)th	
Comp. Temp.:	78 Te	mp. Tool:	267092	Surface Condition:	Gro	ound	Туре:	RUI	MPAS	43.7	.3" SDH	70%	4.4	.299	<u>9"</u>	
Recordable Ir	ndication(s)	): Ye	s 🗌 No 🖌	(If Yes, Ref. Attache	d Ultrasonic Ind	lication Report	.)							<u> </u>		
Results:	Accept	Z Rej	ject	Info 🔲				Co	omments: No	one			<u> </u>	1		
Percent Of Co	overage Obt	ained > 90%	. <u>No</u>	Reviewed Previou	is Data:	Yes										
Examiner	Level	II-PDI	0 11 /1	Signature		Date Revie	wer				Signat			·	Date	
Currao, Jeffro	ey T.	(	feller Com		09/22	/2009	THOMAS				AL			09.25	109	
Examiner	Level	II-PDI		' Signature		Date Site R	leview		~	1 1 1	Signat	ure p .	1		Date	
Muirhead, Ry			1		09/22			<u> Buke</u>	s Th	illip C	Buke	a Septen	ber 2	5,200	9	
Other	Level	N/A		Signature	· .		Review			ר, ר ר	Signat				Date	
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					UT Ca	alibrati	on Can	ninatio	n						
Domin	ion	Site/Unit:	KPS	1	1		Proce	dure:	NE	P-15.16 Rev.	3	_	Outage N	o.:	K1R30
	Sum	mary No.:		.C1.20.002			Procedure	Rev.:		3		-	Report N	o.: U	T-09-006
	w	orkscope:		ISI			Work Orde	No.:	ĸ	(W100274984		_	Paç	ge: 2	of 3
Code:	AS	ME Sect. X	(I 98 Ed/00 Add		Cat./Ite	em:	C-A/C1.20			Location:		AUX	ILIARY BUILI	DING	
Drawing No.:			M-1207			Description	: RESIDUAL	HEAT EXC	 HANGE	R AHRS1-1A	HEAD CIR	CUMFERE		<u> </u>	
System ID:	RHR - RE	SIDUAL HE	EAT EXCHANGE	RS AHRS1-1A	AND AHRS2	-1B							······································		
Component ID:	M-1207 / /	AHRS1-W2	/ C1.20		- <u>.</u> =				Size/	Length: 2	4"/75.36"		hickness/Dia	meter:	0.50"/24.0"
Limitations:	See attac	hed limitat	ion sheet	<u> </u>	<u></u>		· · · · · · · · · · · · · · · · · · ·			Start	Time:	10:43	Finish	Time:	10:50
	Instrum	ent Setting	ys		Sea	rch Unit		Cal.	Time	Data		Axial	Orientated Se	arch Unit	
Serial No.:		04022	9207	Serial No.	.:	00YP26		Checks	Time	Date	Calibra		Signal	Sweep	
Manufacturer:		PANAME		Manufact	urer:	KRAUTKR	AMER	Initial Cal.			Refle		nplitude %	Division	Sound Path
Model:		EPOC		Size:	0.25"	_ Shape: _		Inter. Cal.	<u> </u>		11	Г	80%	3.0	.707"
Delay:	4.080"	Range:	2.357"		5.0 MHZ	_ Style: _		Inter. Cal. Inter. Cal.	10:47 N/A	03/22/2003	21		31%	6.0	1.414"
M'tl Cal/Vel:	0.1232	Pulser:	Square 0%	Exam Ang	gle: <u>45</u>		ments: Single			09/22/2009	37		10%	9.0	2.126"
Damping:	400 ohms Auto	Reject: Freq.:	 5.0 Mhz	Mode:		Shear			Coupla						
Filter:	3-6 Mhz	Mode:	Fullwave	Measured Wedge S	-	4 MSWG		Cal. Batch	-	07143		l	ntial Orienta	ted Searc	h i Init
Voltage:	Max	Other:	N/A	Wedge S		INISAAC	<u></u>			RACE 40	Calibr		Signal	Sweep	
Ax. Gain (dB):	21	Circ. Ga	ain (dB): 21	<u> </u>	Search	Unit Cable	•	···		ECH INC.	Refle		mplitude %	Division	Sound Path
10 Screen D	iv. = 2.35			Type:	BNC	to MCD: R	RG-174	Exam Bate		07143	1	r	80%	3.0	.707"
Linearity Report			-09-016	Length:	6'	No. Conn.:	0			RACE 40	2		31%	6.0	1.414"
		ration Bloc			Scan	Coverage		··		ECH INC.	3.	r	10%	9.0	2.126"
Cal. Block No.:		WPS		Upstream	Downst	tream 🔽 S	can dB: 33		ference	Dia ali		 Refe	rence/Simula		
Thickness	0.5"	Dia.:		cw	/ 🔽	ccw 🗹 s	can dB: 33	Serial No.:		ыоск 08-4346	Gain		Signal	Sweep	Sound Path
Cal. Blk, Temp.	68 Ter	– – – mp. Tool:	267092	Exam Su	Irface:	O	D	Туре:		MPAS	dB		Amplitude %		44
Comp. Temp.:	78 Ter	mp. Tool:	267092	Surface (	Condition:	Gr	ound				21	.75" SDH	24%	4.4	1.040"
Recordable Inc	dication(s)	: Ye	s No 🗸	(If Yes, Ref	- f. Attached U	Jitrasonic In	dication Report	.)					1		+
Results:	Accept 🔽	Rej	ect	Info 📋					с	omments: No	one	L	1		- <b>-</b>
Percent Of Cov	erage Obta	ined > 90%	: <u>No</u>	Reviewe	d Previous D	Data:	Yes	_							
Examiner	Level	II-PDI	0.10	Signature			Date Revie	wer				Signatu	ure	· · · · ·	Date
Currao, Jeffrey	у Т.		Vellet C.	<u></u>		09/22	2/2009 س.د.	THOMAS				411_			09.25.09
Examiner	Level	II-PDI		Signature	->		Date Site F	•			, , ,	Signati	ure		Date
Muirhead, Rya			le			09/22	2/2009 Ph,		Buka	es Th	illes C	Buke		Imber :	25,2009
Other	Level	N/A		Signature				Review				Signati	•		Date
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				U	T Calibr	ation	ami	inatio	n						
Domi	nion`	Site/Unit:	KPS	/ 1		I	Procedu	ıre:	NE	P-15.16 Rev.	3		Outage N	o.:	K1R30
	Sum	mary No.:	K1.	C1.20.002		Proce	edure Re	ev.:		3		-	Report N	o.: U	T-09-006
	w	orkscope:		ISI		Work	Order N	lo.:	к	W100274984		_	Pag	ge: 3	of 3
Code:	AS	ME Sect. X	1 98 Ed/00 Add		Cat./Item:	C-A/	/C1.20			Location:		AU	XILIARY BUIL	DING	
Drawing No.:			M-1207		Descr	iption: RESID	DUAL HE		– IANGEI	R AHRS1-1A	HEAD CIR	CUMFER	RENTIAL WELI	)	·
System ID:	RHR - RE	SIDUAL HE	AT EXCHANGER	S AHRS1-1A AND	AHRS2-1B			·			-				· · · · · · · · · · · · · · · · · · ·
Component ID:	. M-1207 / /	AHRS1-W2	/ C1.20	· · · ·		<u></u>			Size/L	_ength: 2	4"/75.36"		Thickness/Dia	meter:	0.50"/24.0"
Limitations:	See attac	hed limitat	ion sheet							Start	Time:	10:51	Finish	Time:	10:56
• • • • • • •	Instrum	ent Setting	js		Search Un	it	Γ	Cal.				Avia	I Orientated Se	arch Linif	
Serial No.:		04022	9207	Serial No.:	sc	0121		Checks	Time	Date	Calibra		Signal	Sweep	
Manufacturer:		PANAME		Manufacturer:		TKRAMER		nitial Cal.		09/22/2009	Refle		Amplitude %	Division	Sound Path
Model:		EPOC		Size:0.;	25" Shar		Ľ h	nter. Cal. nter. Cal.		09/22/2009 09/22/2009	11	Г	80%	3.0	.937"
Delay:	5.344	Range:	3.127"		MHZ Sty		<u> </u>	nter. Cal.	N/A	09/22/2009	21		30%	6.0	1.870"
M'tl Cal/Vel:	0.1232	_ Pulser: .	Square 0%	Exam Angle:		f Elements: Si	ingle –	Final Cal.		09/22/2009	31		10%	9.0	2.780"
Damping: Rep. Rate:	400 ohms Auto	_ Reject: Frea.:	0%5.0 Mhz	Mode: Measured Ang	She	ear 60	Ľ		Coupla	·		h			
Filter:	3-6 Mhz	- Mode:	Fullwave	Wedge Style:		SWQC	c	al. Batch:	•	07143		 Circumfe	rential Orienta	ted Searc	h Unit
Voltage:	Max	Other:	N/A	Wedge etyle:						RACE 40	Calibr		Signal	Sweep	
Ax. Gain (dB):	33.8	Circ. Ga	in (dB): N/A	· · · ·	Search Unit C	able				ECH INC.	Refle		Amplitude %	Division	Sound Path
10 Screen	Div. = 3.12	in. of	Sound Path	Туре:	BNC to MC	D: RG-174	F	Exam Batc		07143	N/.	A			
Linearity Repo	rt No.:	 L·	09-016	Length:	6' No. Co	nn.: <u>0</u>			_	RACE 40					
	Calibr	ation Bloc	k		Scan Covera	age	N	Vfg.:	SONOTI	ECH INC.					
Cal. Block No.	:	WPS	-30	Upstream 🖌	Downstream	Scan dB:	39.8	Ref	erence	Block		Re	ference/Simula	tor Block	
Thickness	0.5"	Dia.:	0	cw	ccw[	Scan dB:	N/A S	Serial No.:		DIGER 08-4346	Gain		Signal	Sweep	Sound Bath
Cal. Blk. Temp	o. <u>68</u> Ten	np. Tool:	267092	Exam Surface	):	OD		Type:		MPAS	dB 33.8	.75" SD	or Amplitude %	Division	1.469"
Comp. Temp.:	_ <b>78</b> Ter	np. Tool: _	267092	Surface Cond	ition:	Ground					55.0	.75 50	11 0076	4.7	1.405
Recordable Ir	ndication(s):	Ye	s 🔲 🛛 No 🖌	(If Yes, Ref. Att	ached Ultrason	ic Indication R	Report.)								
Results:	Accept 🔽	] Rej	ect 🔲	Info 🗌					Co	omments: No	one				
Percent Of Co	verage Obta	ined > 90%	: <u>No</u>	Reviewed Pro	evious Data:	Yes									
Examiner	Level	II-PDI	n 10	Signature		Date	Reviewe	er				Signa	ature	· · · · · ·	Date
Currao, Jeffre	ey T.	24	M Cum	u-		09/22/2009	J.L. TH	TOMAS			A	Ľ_	-		09.25.09
Examiner	Level	II-PDI	$\geq$	Signature		Date	Site Rev	view			1 11	Signa			Date
Muirhead, Ry		12	$\leq \sim$					PE.B	<u>uKe</u>	s Th	ulles C	Buk		mber 2.	5,2009
Other	Level	N/A		Signature		Date	ANII Re			$\bigcirc$	-	Signa			Date
N/A	<u> </u>						لم ل_	mes WI	Vieme	$g \rightarrow$	anu li	H came	rg 255	PTEMBET	209

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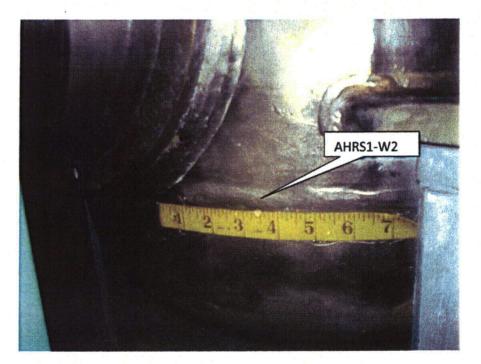
# **Limitation Record**

Site/Unit: Summary No.:	KPS / 1 K1. C1. ZO. DOZ	Procedure: Procedure Rev.:	NEP-15.16 3	-	KIR30 UT-09-006		
Workscope:		Work Order No.:	Kw 10027 4984	- Page:		of	3
Description of I						Nainting Bernary P	

Description of Limitation:

Welded Supports And Nozzles

Sketch of Limitation:



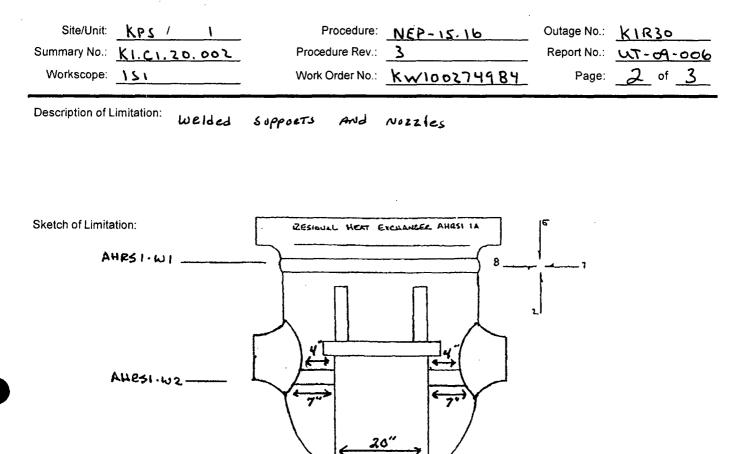
Limitations removal requirements: NONE

## Radiation field: 10 mg

	Level IL. POT	Signature	Date 9/22/09	Reviewer W.L. TYOMAS	Signature	Date 09.25 09
Examiner Ryan M	Level II-PAI	Signature	Date	Site Review Ph. 1119 E. Bukes 7	Phillip C. Buken S	Date
Other	Level	Signature	Date	ANII Review James W Nuemerg	Signature	Date 2559709
					, ,	

Dominion

# **Limitation Record**

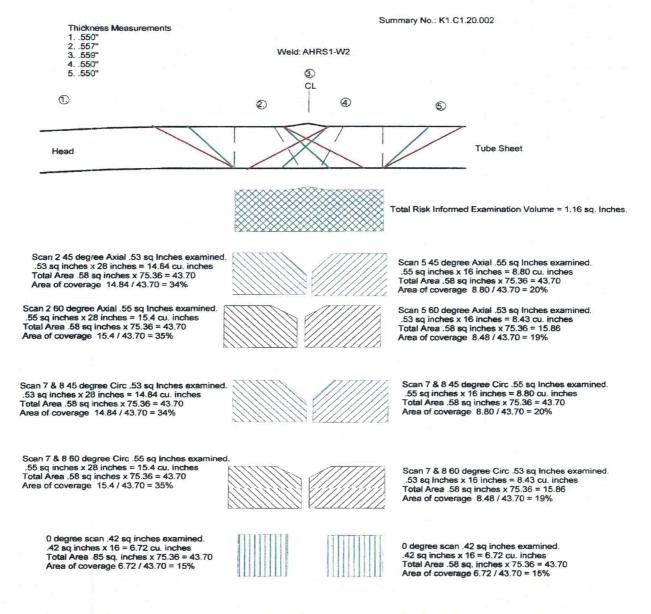


NOTE: SLAN 2.5.7.8 i DO ERAMUETION LIMITED TO AREAD NOTED AGOUG DUG TO SUPPORTS/NO22/05 I EDDOLG WELD INTERFERENCE.

Limitations removal requirements: NONE

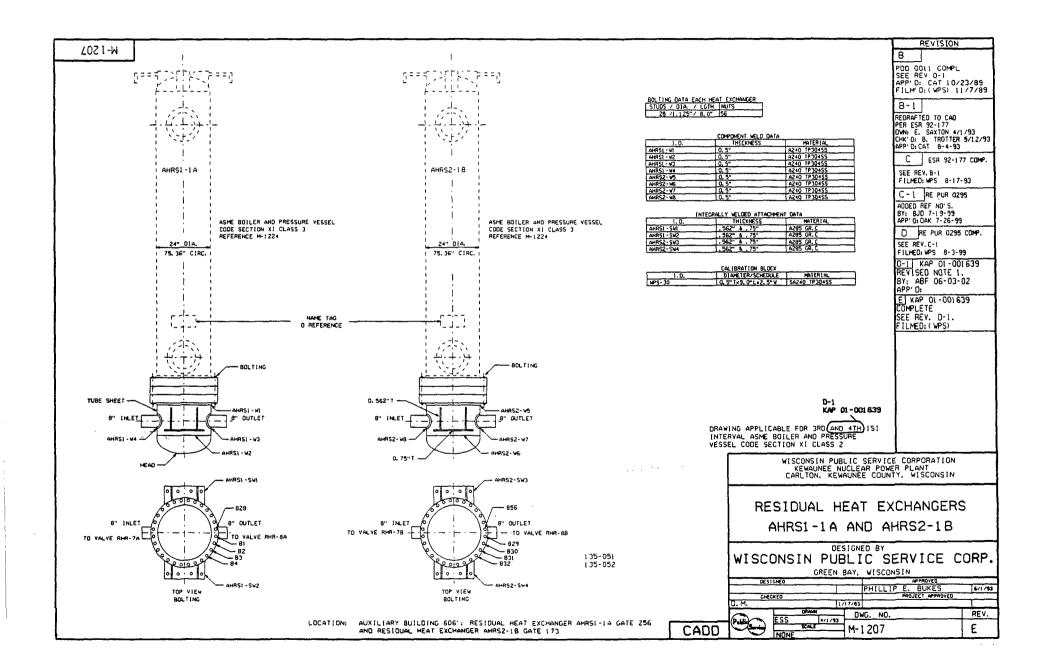
Radiation field: 10 MR

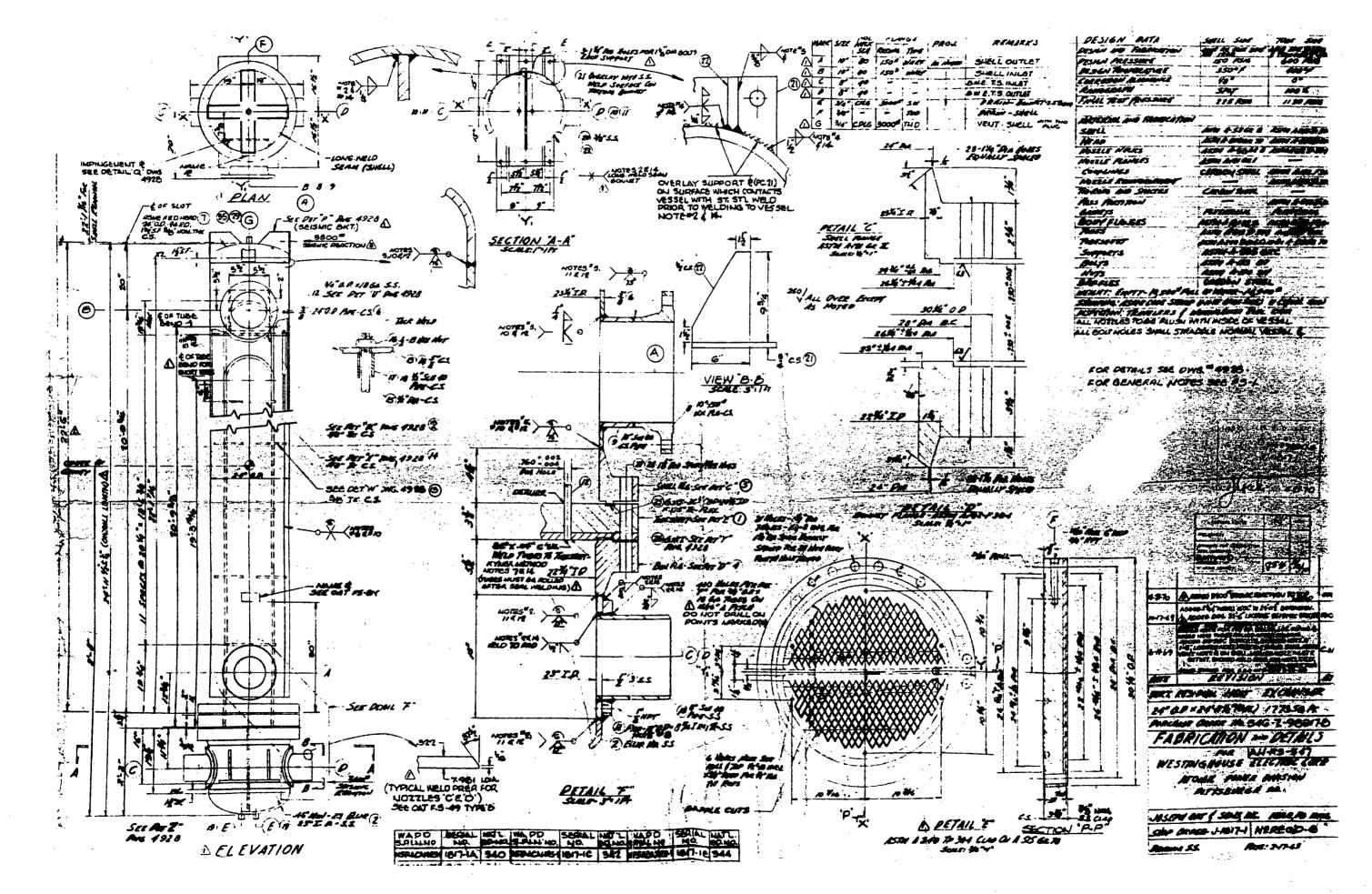
Examiner	Level I . AD	Z Signature	Date	Reviewer	 Si	gnature	Date
JEFFRey	TLURRAD	2Mp Cmm	9/22/09	W.L. THOMAS	11		09.25.09
Examiner Ryan Mu	Level I PAS	Signature	Date 9/22/09	Site Review Ph.II.P E.Buk		gnature Buku	Date Sept. 25, 2009
Other	Level	Signature	Date	ANII Review Janes WN ene		gnature	Date 255EPT 09



Total Examination Coverage Achieved 25%

Page 3 of 3





# <sup>-</sup>

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-6

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

# **1. ASME Code Component Affected:**

Pressurizer 6" Nozzle to Safe End Butt Weld PR-W1DM constructed of SA-216, Grade WCC Carbon Steel Casting, clad with austenitic stainless steel, and fitted with a 316L stainless steel safe-end.

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-F; Item No. B5.40

# 4. Impracticality of Compliance:

32.0% of the Pressurizer 6" Nozzle to Safe End Butt Weld PR-W1DM was inaccessible due to the Carbon Steel Nozzle Configuration and Nozzle O.D. Taper Configuration thus restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 32.0% of the Pressurizer 6" Nozzle to Safe End Butt Weld PR-W1DM would require modification of the original design of Pressurizer Nozzle to Safe End.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item B15.20 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-6

performed on Pressurizer 6" Nozzle To Safe End Butt Weld PR-W1DM during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-F and Item No. B5.40.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-31

#### 9. References:

Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]

<b>Se Domi</b>	nion	Site/Unit:	KPS	/ 1		_	Proc	edure:	ER-AA-	NDE-UT-810 I	Rev. O		Outage	No.:	K1R29
	Sum	mary No.:	K1	.B5.40.002		_	Procedure	Rev.:		0			Report	No.: U	T-08-251
	Wa	orkscope:		ISI		-	Work Orde	ar No.:		07-004170		_	P	age: 1	of _1
Code:	ASI	ME Sect. X	1 98 Ed/00 Add	·	Cat./It	tem:	B-F/B5.4	)		Location:			CONTAINME	NT	
Drawing No.:			ISIM-940-1			Descriptio	on: 6" SAFE E	ND TO NOZ	— ZLE WEI	LD				·····	<u> </u>
System ID:	RC - REAC	TOR COO	LANT - FROM PR	ESSURIZER TO	D PRESSU	RIZER REL	JEF TANK								
Component ID:	ISIM-940-1	/ PR-W1D	M / B5.40						Size/	Length:	6"/20.8"		Thickness/Di	ameter: '	1.25"/6.625"
Limitations:	Yes, See A	ttatched S	upplimental Shee	t						Start	Time:	1550	Finis	h Time:	1553
	Instrume	ent Setting	s		Sea	arch Unit		Cal.	1						
Serial No.:		01R5	w	Serial No.:		01JP1L	L	Cal. Checks	Time	Date			ial Orientated S		<del></del>
Manufacturer:		GE INSPE	CTION	Manufactur	er:	KRAUTK	RAMER	Initial Cal.	1318	4/27/2008	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	SW	Size:	0.375"	Shape:	ROUND	Inter. Cal.	NA		ID N	otch	80%	4.0	.986"
Delay:	6.1734us	Range:	2.453"	Freq.:	1.5 MHZ	Style:	COMP-G	Inter, Cal.	NA						
M'tl Cal/Vel:	0.1232"/Us	Pulser:	Square	Exam Angl	e: 45	# of El	ements: Single	Inter. Cal.	NA						
Damping:	500 Ohms	Reject:	0%	Mode:		SHEAR		Final Cal.	1620	4/27/2008	L				
Rep. Rate:	Auto/High	Freq.:	2.0 Mhz.	Measured /	Angle:	4	15		Couplar	nt					
Filter:	NA	Mode:	FullWave	Wedge Sty	le:	MSWO	QC	Cal. Batch:		07143		Circum	ferential Orient	ated Search	ı Unit
Voltage:	450	Other:	P/W: 330					Туре:	SONOTI	RACE 40	Calib	ration	Signal	Sweep	Sound Path
Ax. Gain (dB):	17.9	_ Circ. Gai	n (dB): <u>NA</u>		Search	h Unit Cable	•	Mfg.:	SONOTE	ECH INC.	Refle	ector	Amplitude %	Division	Sound Pain
10_Screen D	)iv. = <b>2.45</b> 3	in. of	Sound Path	Туре:	BNO	C to MCD: F	RG-174	Exam Batc	h:	07 143	N	Α			
Linearity Report	: No.:		08-003	Length:	6'	No. Conn.:	0			RACE 40	<u> </u>				
, ,		tion Block			Scan	Coverage		· · · · · · · · · · · · · · · · · · ·		ECH INC.					
Cal. Block No.:	Calibra			Upstream [	Downs	stream 🖌 S	Scan dB: <b>23.9</b>					p	eference/Simul	eter Bleek	
Thickness:	0.719"	Dia.:	6	 CW [			Scan dB: <b>23.9</b>		ference l		Gain		Signal	Sweep	
Cal. Blk. Temp.			257125	 Exam Surfa		0		Serial No.:		MT-036	dB	Reflect	tor Amplitude %		Sound Path
Comp. Temp.:		' np. Tool:	257125	 Surface Co	ndition:	F	lush	Туре:	RUN	MPAS	17.9	0.75"S	DH 25%	4.3	1.05"
Recordable in		Yes	No 🗸	 (If Yes, Ref. )	Attached U	Itrasonic Ind	lication Report.)								<u> </u>
Results:	Accept		ect [7]	Info 🗔 See /	Attatched \$	Supplement	tal Report For	Coverage.	C	omments: <b>Ri</b> s	sk Inform	ed Weld	l	-4	L
Percent Of Cov			No	ليب	Previous D		Yes	U							
Examiner	Level	=    1		Signature			Date Revie	wer		Level II		Sign	ature		Date
Timm, Jeremy			hall	5		4/2	27/2008 Zoj	Iner I	Srian	C	Ku		alle en	5	-4-08
Examiner	Level	10	10.	Signature			Date Site F	leview		~	1 11	Ś	ature		Date
Knott, Brian D	).	Dru	n U.K	nott		4/2		PE.BI	1 Kes	Ph	ullips C	1	ies)	May 4	2008
Other	Level	NIA	<del></del>	Signature			1	Review		~		Sign	ature	0	Date
N/A							<i></i>	amesWA	lieuer	q <u> </u>	_) <i>am</i> e	inA	Camera	5MAY	18
•										]	/				

<b>M</b> oomi	nion	Site/Unit:	KPS	/ 1			Proce	dure:	ER-AA-	NDE-UT-810	Rev. 0		Outage	No.:	K1R29
	Sum	mary No.:	K1.	B5.40.002			Procedure	Rev.:		0			Report	No.: U	T-08-256
, .	W	orkscope:		ISI			Work Orde	r No.:		07-004170		_	P	age: 1	of _1
Code:	AS	ME Sect. X	1 98 Ed/00 Add		Cat./Item	:	B-F/B5.40			Location:		(	CONTAINME	NT	
Drawing No.:			ISIM-940-1		0	Descriptio	n: 6" SAFE EN	ID TO NOZZ	LE WEI	LD					
System ID:	RC - REAC	TOR COO	LANT - FROM PRE	ESSURIZER TO P	RESSURIZ	ZER REL	IEF TANK								
Component ID:	ISIM-940-1	/PR-W1D	W / B5.40			_			Size/	Length:	6"/20.8"		Thickness/Di	ameter: 1	.25"/6.625"
Limitations:	Yes, See A	ttatched S	upplemental Shee	.t						Start	Time:	1542	Finis	h Time:	1544
<u> </u>	instrum	ent Setting	5		Search	n Unit		Cal.				Avial	Orientated S	oarch Unit	
Serial No.:		01R5	W	Serial No.:		V0450		Checks	Time	Date	Calibr		Signal		
Manufacturer:		GE INSPE	CTION	Manufacturer:		MEGASC	NICS	Initial Cal.	1350	4/27/2008	Refle		mplitude %	Sweep Division	Sound Path
Model:		USN 60	SW	Size: 2 (15mm	nx25mm)	Shape:	RECTANG.	Inter. Cal.	NA		N	A			
Delay:	8.4744us	_ Range: _	2.345"	Freq.:1.5	MHZ	Style:	CSS	Inter. Cal.	NA						
	0.2320"/Us	_ Pulser: _	Square	Exam Angle:	35L	# of Ele	ments: DUAL	Inter, Cal.	NA 1622	4/27/2008					
· • —	500 Ohms	_ Reject: _	0%	Mode:	LON	GITUNDI	NAL	Final Cal.			<u> </u>				
Rep. Rate:	Auto/High	Freq.:	2.0 Mhz.	Measured Ang	le:	3	5		Couplar	nt	<u> </u>				I
Filter:	NA	Mode:	FullWave	Wedge Style:		D-SB	<u>s</u>	Cal. Batch:		07143		Circumfer	ential Orienta	ated Search	Unit
Voltage:	450	Other:	P/W: 330					· · · · · · · · · · · · · · · · · · ·		RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	<u>NA</u>	Circ. Gai	• •	<u>.</u>	Search U			Mfg.:	SONOTE	ECH INC.	Refle		mplitude %	Division	000"
10 Screen D	$iv = \frac{2.345}{$	in. of	Sound Path	Type:	(2) BNC	-		Exam Batch	n:	07 143		otcn	80%	4.0	.936"
Linearity Report	No.:	L-	08-003	Length:	6' No	o. Conn.:	0	Туре:	SONOT	RACE 40					
	Calibra	ation Block			Scan Co	overage		Mfg.:	SONOTE	ECH INC.					1
Cal. Block No.:		WPS	-17	Upstream 🔤	Downstrea	am 📃 S	can dB: <u>NA</u>	Ref	erence l	Block		Refe	erence/Simul	ator Block	
Thickness:	0.719"	Dia.:	6	cw 🔽	cc	w⊽ s	can dB: <u>48.9</u>	Serial No.:		UXE017A	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <b>70</b> Ten	np. Tool:	257125	Exam Surface	:	O	)			RN. BLOCK	dB NA	Reflector	Amplitude %	6 Division	
Comp, Temp.:	<b>79</b> Ten	np. Tool:	257125	Surface Condi	ition:	FI	ush	· )po:							
Recordable Inc	dication(s):	Yes	No <b>∠</b>	 (If Yes, Ref. Atta	ached Ultra	sonic Indi	cation Report.)						<u> </u>		
Results:	Accept 🖌	Reje	ect	Info 🔲 See Atta	itched Sup	oplement	al Report For C	overage.	C	omments: Ol	Contour sk inform		=43mm. (CIR	C)	
Percent Of Cov	erage Obtain	ed > 90%:	No	Reviewed Pre	vious Data	:	Yes				SK MIOTA				
Examiner	Level	111		Signature			Date Review	ver		Level :		Signati	ure		Date
Timm, Jeremy	, <b>Т</b> .		Imt	40		4/2	7/2008 Zol	lner B	, Tìam	•	DL	un v	dlen	5	-4-2008
Examiner	Level	11		Signature			Date Site R	eview			DA MA	Signati	re		Date
Knott, Brian D	). 🧹	Dra	a.V.K	nott		4/2		IPE.P	uke:	s ,	Thilly	<u> 26 13 1</u>	kes	May 4	
Other	Level	NA		Signature				Review				Signati			Date
N/A							<i>Ia</i>	nes walk	aero		-James	uni	mery .	5 MAY U 8	·

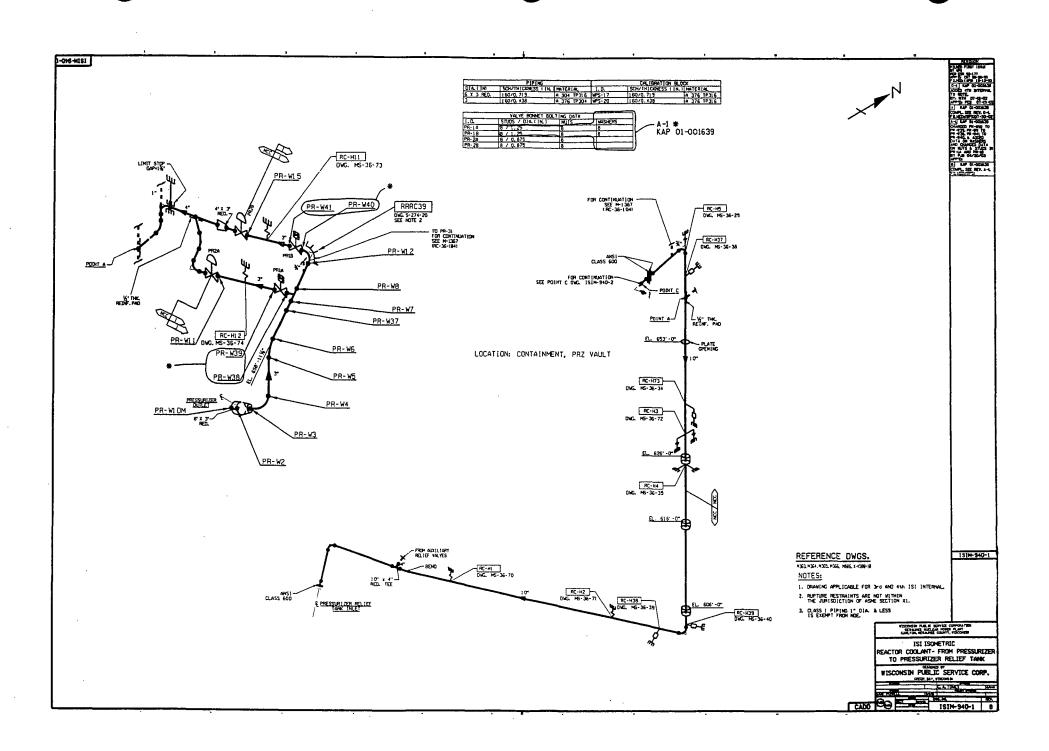
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<b>Ja B</b> oomi	nion	Site/Unit:	KPS	/ 1			Procee	dure:	ER-AA-	NDE-UT-810 F	Rev. O		Outage	No.:	K1R29
	S	ummary No.:	K1	B5.40.002		Pr	ocedure f	Rev.:		0			Report	No.: U	T-08-271
		Workscope:		ISI		Wa	ork Order	No.:		07-004170		_	P	age: 1	of 1
Code:		ASME Sect. )	(1 98 Ed/00 Add		Cat./Item	а: <b>В</b> -	-F/B5.40			Location:			CONTAINME	NT	<b></b>
Drawing No.:			ISIM-940-1		I	Description: 6" S	AFE EN	D TO NOZZ	LE WEI	LD					
System ID:	RC - RE	ACTOR COC	DLANT - FROM PR	ESSURIZER TO F	PRESSURI	ZER RELIEF TAI	NK								
Component ID:	ISIM-94	0-1 / PR-W1D	M / B5.40						Size/	_ength:	6"/20.8"		Thickness/Di	ameter: 1	.25"/6.625"
Limitations:	Yes, Se	e Attatched S	Supplemental She	et						Start	Time:	1554	Finis	h Time:	1557
	Instru	ment Setting	js		Searc	h Unit	[	Cal.				٨٧١	al Orientated S		
Serial No.:		01R5	NW	Serial No.:		V0451		Checks	Time	Date	Calibr	······	Signal		T
Manufacturer:		GE INSP	ECTION	Manufacturer:		MEGASONICS		Initial Cal.	1415	4/27/2008	Refle		Amplitude %	Sweep Division	Sound Path
Model:	<u> </u>	USN 6		Size: 2 (15m	mx25mm)	Shape: RECT	ANG.	Inter. Cal.	NA		ID No	otch	80%	4.0	1.112"
Delay:	8.3747us		2.722"	Freq.:1.5	MHZ	Style: CS		Inter. Cal. Inter. Cal.	NA						
	0.2320"/U		Square	Exam Angle:	45L	# of Elements:	DUAL	Final Cal.	NA 1624	4/27/2008					
Damping:	500 Ohm	´	0%	Mode:		GITUNDINAL	I				ļ				
Rep. Rate:	Auto/Hig		2.0 Mhz.	Measured Ang		45			Couplar						<u> </u>
Filter:	NA	Mode:	Fullwave	Wedge Style:		D-SBS		Cal. Batch:		07143	L		erential Orient	ited Search	Unit
Voltage:	<u>450</u> 53.5	Other: Circ. Ga	P/W: 330 in (dB): NA	<u> </u>	Casaab II	nit Cable		·'		RACE 40	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
Ax. Gain (dB):			Sound Path	 T: = o'		To Limo: RG-17	4	·			N				<u> </u>
10 Screen D	$J_{\rm IV.} = -$	<u>22</u> in. of		Type:		b. Conn.: 0	<u> </u>	Exam Batch		07143		<u> </u>		····	
Linearity Report	t No.:	L	-08-003	Length:				·		RACE 40	·				
	Cali	bration Bloc	k		Scan Co	-		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:		WPS	5-17	Upstream 🖌		am 🖌 Scan dB:		Ref	erence l	Block		Re	ference/Simul	ator Block	<u></u>
Thickness:	0.719"	Dia.:	6	cw 🗀	CC	CW 📋 Scan dB:	NA	Serial No.:	ME	UXE012A	Gain đB	Peflect	Signal or Amplitude %	Sweep 6 Division	Sound Path
Cal. Blk. Temp.	.: <u>70</u> T	emp. Tool:	257125	Exam Surface	e:	OD		Type: PC		RN. BLOCK	NA	Renect		Division	
Comp. Temp.:	<u>79</u> T	emp, Tool:	257125	Surface Cond	lition:	Flush		•				······································			
Recordable In	dication(s	): Yes	s 📋 🛛 No 🖌	(If Yes, Ref. Att	ached Ultra	sonic Indication F	Report.)								
Results:	Accept	🖌 Rej	ject 🗌	Info 🔄 See Atta	atched Su	pplemental Repo	ort for Co	overage.	C		Contour		S=43mm (AX)		
Percent Of Cov	verage Obta	ained > 90%:	No	Reviewed Pro	evious Data	r Yes						cu vrciu.			
Examiner	Level	 M		Bignature	-	Date	Review			Level	II.	Signa	ature		Date
Timm, Jeremy	y T.		Cha	1th	-	4/27/2008	Zoll	ner B	Fian		Eu	ωńπ	aluer	5	-4-2008
Examiner	Level	"0		signature		Date	Site Re	view			011	Sign			Date
Knott, Brian D	).	<u>C/2</u>	ian N.K	nott		4/27/2008	1h.11	PE.B	<u>u Kes</u>		Thill	lip C	Buken	May 4	
Other	Level	N/A		Signature		Date	ANII R		,			Signa	ature	-	Date
N/A							a	meswin	I EMERA		- Jame	will	emery	5MAS	108

**......** 

Manufacturer: MEGASUNICS Inter Cal NA	)
Code:     ASME Sect. XI 98 Ed/00 Add     Cat./Item:     B-F/B5.40     Location:     CONTAINMENT       Drawing No.:     ISIM-940-1     Description:     6" SAFE END TO NOZZLE WELD     Editorial     CONTAINMENT       System ID:     RC - REACTOR COOLANT - FROM PRESSURIZER TO PRESSURIZER RELIEF TANK     Size/Length:     6"/20.8"     Thickness/Diameter:     1.25"/6       Component ID:     ISIM-940-1 / PR-W1DM / B5.40     Size/Length:     6"/20.8"     Thickness/Diameter:     1.25"/6       Limitations:     Yes, See Attatched Supplemental Sheet     Start Time:     1605     Finish Time:     161       Serial No.:     01R5NW     Serial No.:     V0452     Cal.     Time     Date     Axial Orientated Search Unit       Manufacturer:     GE INSPECTION     Manufacturer:     MEGASONICS     Initial Cal.     1426     4/27/2008     Reflector     Amplitude %     Division     Sour	72
Drawing No.:     ISIM-940-1     Description:     6" SAFE END TO NOZZLE WELD       System ID:     RC - REACTOR COOLANT - FROM PRESSURIZER TO PRESSURIZER RELIEF TANK       Component ID:     ISIM-940-1 / PR-W1DM / B5.40       Limitations:     Yes, See Attatched Supplemental Sheet       Imitations:     Yes, See Attatched Supplemental Sheet       Serial No.:     01R5NW       Serial No.:     V0452       Manufacturer:     MEGASONICS       Initial Cal.     1426       Initial Cal.     1426       Vest Solution     Signal       Serial No.:     V0452	1
System ID:       RC - REACTOR COOLANT - FROM PRESSURIZER TO PRESSURIZER RELIEF TANK         Component ID:       ISIM-940-1 / PR-W1DM / B5.40       Size/Length:       6"/20.8"       Thickness/Diameter:       1.25"/6         Limitations:       Yes, See Attatched Supplemental Sheet       Search Unit       Start Time:       1605       Finish Time:       161         Serial No.:       01R5NW       Serial No.:       V0452       Cal.       Time       Date       Axial Orientated Search Unit         Manufacturer:       GE INSPECTION       Manufacturer:       MEGASONICS       Initial Cal.       1426       4/27/2008       Reflector       Signal       Sweep       Sour	
Component ID:       ISIM-940-1 / PR-W1DM / B5.40       Size/Length:       6"/20.8"       Thickness/Diameter:       1.25"/6         Limitations:       Yes, See Attatched Supplemental Sheet       Start Time:       1605       Finish Time:       161         Imitations:       Instrument Settings       Serial No.:       V0452       Cal.       Time       Date       Axial Orientated Search Unit       Calibration       Signal       Sweep       Sour         Manufacturer:       GE INSPECTION       Manufacturer:       MEGASONICS       Initial Cal.       1426       4/27/2008       Reflector       Amplitude %       Sour       Sour	
Limitations:       Yes, See Attatched Supplemental Sheet       Start Time:       1605       Finish Time:       161         Instrument Settings       Search Unit       Cal.       Time       Date       Axial Orientated Search Unit       Calibration       Signal       Sweep       Sour         Manufacturer:       GE INSPECTION       Manufacturer:       MEGASONICS       Initial Cal.       1426       4/27/2008       Reflector       Amplitude %       Sour	
Instrument Settings     Search Unit       Serial No.:     01R5NW       Manufacturer:     GE INSPECTION       Manufacturer:     MEGASONICS       Initial Cal.     1426       4/27/2008     Seflector       Serial No.:     Serial No.:	625"
Serial No.:     01R5NW     Serial No.:     V0452     Time     Date     Axial Orientated Search Unit       Manufacturer:     GE INSPECTION     Manufacturer:     MEGASONICS     Initial Cal.     1426     4/27/2008     Calibration     Signal     Sweep     Sour       Maddle     USN 60 SW     Signal     Sweep     Division     Sour	1
Serial No.:     01R5NW     Serial No.:     V0452     Checks     Time     Date     Cellibration     Signal     Sweep     Sour       Manufacturer:     GE INSPECTION     Manufacturer:     MEGASONICS     Initial Cal.     1426     4/27/2008     Reflector     Amplitude %     Division     Sour	
Manufacturer: GE INSPECTION Manufacturer: MEGASONICS Initial Cal. 1426 4/27/2008 Reflector Amplitude % Division	
	id Path
Size. 2 (Tommizzonim) Shape. RECTANS.	55"
Delay:         6.6956 us         Range:         4.0"         Freq.:         1.5 MHZ         Style:         CSS         Inter. Cal.         NA	
M'tl Cal/Vel: 0.2320"/Us Pulser: Square Exam Angle: 60L # of Elements: DUAL Inter. Cal. NA	
Damping:         500 Ohms         Reject:         0%         Mode:         LONGITUNDINAL         Final Cal.         1626         4/27/2008	
Rep. Rate:       Auto/High       Freq.:       2.0 Mhz.       Measured Angle:       60       Couplant	i
Filter:     NA     Mode:     Fullwave     Wedge Style:     D-SBS     Cal. Batch:     07143     Circumferential Orientated Search Unit	
Voltage: 450 Other: P/W: 330 Type: SONOTRACE 40 Calibration Signal Sweep Sources	d Path
Ax. Gain (dB):       52.7       Circ. Gain (dB):       NA       Search Unit Cable       Mfg.:       SONOTECH INC.       Reflector       Amplitude %       Division       Source	
10 Screen Div. = 4.0 in. of Sound Path Type: (2) BNC To Limo: RG-174 Exam Batch: 07143	
Linearity Report No.: L-08-003 Length: 6' No. Conn.: 0 Type: SONOTRACE 40	
Calibration Block Scan Coverage Mfg.: SONOTECH INC.	
Cel Block No. Wps 47 Upstream 🕢 Downstream 🕢 Scan dB: 52.7	
Thicknesse: 0.710" Die: 6 CW CCW Scan dB: NA Gain Signal Sween	id Path
Cal. Blk. Temp.: 70 Temp. Tool: 257125 Exam Surface: OD Type: PDI ALTERN. BLOCK dB Reflector Amplitude % Division	
Comp. Temp.: 79 Temp. Tool: 257125 Surface Condition: Flush	
Recordable Indication(s): Yes No V (If Yes, Ref. Attached Ultrasonic Indication Report.)	
Results: Accept 🖌 Reject 🗌 Info 🗍 See Attatched Supplemental Sheet For Coverage. Comments: OD Contour=8.75" FS=50mm (AX)	
Percent Of Coverage Obtained > 90%: No Reviewed Previous Data: Yes Reviewed Previous Data: Yes	
Examiner Level III / Signature Date Reviewer Level II _ Signature	Date
	008
Examiner Level II Signature Date Site Review Signature	Date
Knott, Brian D. Knott 4/27/2008 Phillip E. Bukes Phillip E Bukes May 4,20	2 <b>8</b>
Other Level N/A Signature Date ANII Review Signature Signature	Date
NIA James WIN Vienera () america (iemory 51117908	

	Suppleme	ntal Rep	ort		
Dominion				Report No.: 10	
KI DC HA AL				Page:	of
Evaminary No.: KI.BS. 40.002		Reviewer	Q	Brian Joll Dat	6 5-1 11
Examiner: Josen Timm Juli Examiner: Briand, Kust Buan		Site Review	Phill DE Rukest	helly C. Buka Dat	re: MAAIN
Other: No	Level: Ng	ANII Review:	Jameswi Niemerg	Dany Wiemay Dat	e: 5 MAY 08
				,	
Comments:			Thickness Mea	asurements	
Weld: PR-W1DM	0 25 25		1. 1.382" 2. 1.29" 3. 1.24"		
			4. 1.20" 5. 1.16"		
Sketch of Photo: (1.)		4.)	5.		
Nozzle	X				
			Safe-end		
VX				$\mathbf{i}$	
	XX			$\mathbf{N}$	
V	XIN				
		XXXXX			
		Tota	al Risk informed Examina	ation Volume = 0.9741 sq.	Inches
		XXXXX			
	····		25 on Inches Fueringd	in evial Direction with 45 d	ooroo or 04%
		.91.	25 sq. inches Examined	in axial Direction with 45 d	egree 01 94 %
<u></u>					
1 and the second se	N.C.	.29	46 sq. Inches Examined	in axial Direction with 60 d	legree or 30%
					en constantino de la constantino de la El constantino de la c
	and a second s				
		.786 sq. Inch	es Examined in Circ Dire	ction with 45 degree or 81	%
Total	Dick Informed Course	an Achiever	ad .		
	Risk Informed Covera	aye Achieve	5 <b>U</b>		
	45 degree 94% 60 degree 30%				
	5 degree 81%				
Total	68%				



### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## **RELIEF REQUEST NO: RR-G-5-7**

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

### 1. ASME Code Component Affected:

Pressurizer 6" Nozzle To Safe End Butt Weld PR-W26DM constructed of SA-216, Grade WCC Carbon Steel Casting, clad with austenitic stainless steel, and fitted with a 316L stainless steel safe-end.

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-F; Item No. B5.40

# 4. Impracticality of Compliance:

63.0% of the Pressurizer 6" Nozzle to Safe End Butt Weld PR-W26DM was inaccessible due to the Carbon Steel Nozzle Configuration and Nozzle O.D. Taper Configuration thus restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 63.0% of the Pressurizer 6" Nozzle To Safe End Butt Weld PR-W26DM would require modification of the original design of Pressurizer Nozzle to Safe End.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval, as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: TableIWB-2500-1; Examination Category B-P; Item B15.20 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-7

performed on Pressurizer 6" Nozzle to Safe End Butt Weld PR-W26DM during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-F and Item No. B5.40.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-33

#### 9. References:

Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]

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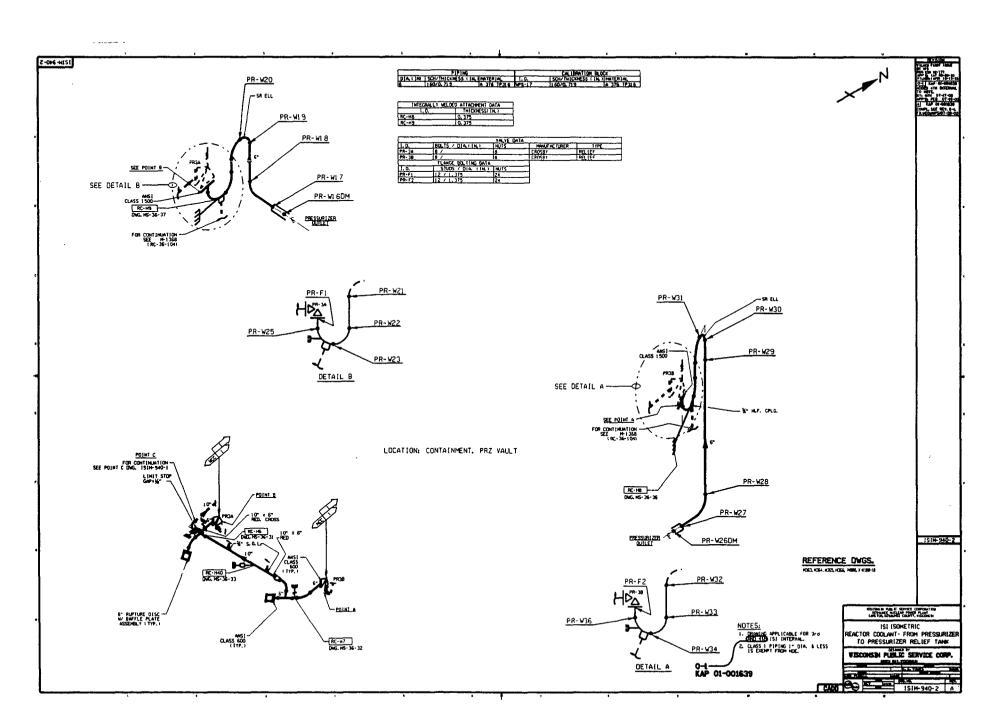
🎤 Domîn	nișn	Site/Unit:	KPS	1	1	_	Proc	edure:	ER-AA-	NDE-UT-810 F	Rev. O	_	Outage N	lo.:	K1R29
	Summ	nary No.:	K1	.B5.40.003			Procedure	e Rev.:		0			Report N	io.: U	T-08-241
	Wa	rkscope:		ISI			Work Orde	er No.:		07-004170			Pa	ge: 1	of 1
Code:	ASN	IE Sect. X	98 Ed/00 Add		Ca	t./Item:	B-F/B5.4	0		Location:			CONTAINMEN	IT	
Drawing No.:			ISIM-940-2			Descript	ion: 6" SAFE EI	ND TO NOZZ		_D					
System ID:	RC - REAC	TOR COOL	LANT - FROM PR	ESSURIZER	TO PRES	SURIZER RE	LIEF TANK								
Component ID:	ISIM-940-2	/ PR-W26D	M / B5.40						Size/l	_ength:	6"/20.8"		Thickness/Dia	ameter: 1	.25"/6.625"
Limitations:	Yes, See At	tatched S	upplemental She	et						Start	Time:	1546	Finist	Time:	1549
	Instrume	nt Setting	5 5			Search Unit		Cal.	Ţ Ţ		[	Avia	Orientated S	arch Unit	
Serial No.:		01R5N	IW	Serial No	o.:	01JP1	IL	Checks	Time	Date	Calibr		Signal	Sweep	r
Manufacturer:		GE INSPE	CTION	Manufac	turer:	KRAUTK	RAMER	Initial Cal.	1318	4/27/2008	Refle		Amplitude %	Division	Sound Path
Model:		USN 60		Size:	0.375"	Shape:	ROUND	Inter, Cal.	NA		ID No	otch	80%	4.0	.986"
Delay:	6.1734us	Range: _	2.453"	Freq.:	1.5 MHZ	Style:	COMP-G	Inter. Cal.	NA						
	0.1232"/Us	Pulser:	Square	Exam Ar	ngle:	45# of E	Elements: Single	Inter. Cal. Final Cal.	NA 1620	4/27/2008					
· · ·	500 Ohms	Reject:	0%	Mode:		SHEAR		L							<u> </u>
· · ·	Auto/High	Freq.:	2.0 Mhz	Measure	d Angle:		45		Couplan						I
Filter:	NA	Mode:	FullWave	Wedge S	Style:	MSW		Cal. Batch:		07143		Circumfer	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W: 330	<u> </u>						RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	17.9	Circ. Gair	· · · · · · · · · · · · · · · · · · ·	_	Sea	rch Unit Cab	le	Mfg.:	SONOTE	CH INC.	Refle		Amplitude %	Division	
10 Screen D	iv. = 2.453	in. of	Sound Path	Type:	B	NC to MCD:	RG-174	Exam Batch	ר:	07143	<u>N</u>	<u>A</u>			<u> </u>
Linearity Report	No.:	L-C	<b>)8-003</b>	Length:	6'	No. Conn.	:0	Туре:	SONOTE	RACE 40		<u> </u>	<u> </u>		┼───
	Calibra	tion Block			Sc	an Coverage	1	Mfg.:	SONOTE	CH INC.					ł
Cal. Block No.:		WPS-	-17	Upstrear	n 🗹 🛛 Dov	vnstream 🖌	Scan dB: 23.9	Pof	erence E	Block		Ref	erence/Simula	tor Block	
Thickness:	0.719"	Dia.:	6	cv	v 🗹	ccw	Scan dB: 23.9	Serial No.:		MT-036	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.:	<b>70</b> Tem	p. Tool:	257125	Exam Su	urface:	(		Type:		MPAS	dB 17.9	.75" SDH		Division 4.3	1.05"
Comp. Temp.:	79 Tem	p. Tool:	257125	Surface	Condition:		Flush				17.5		2370		1.05
Recordable inc	lication(s):	Yes	N₀ 🖌	(If Yes, Re	f. Attached	I Ultrasonic In	dication Report.)							1	
Results:	Accept 🖌	Reje	ect	Info 🗌 Se	e Attatche	d Suppleme	ntal Report For	Coverage.	Co	omments: <b>Ris</b>	k Inform	ed Weld			
Percent Of Cove	erage Obtaine	d > 90%:	<u>No</u>	Review	ed Previous	Data:	Yes								
Examiner	Level			Signature		·····	Date Revie	wer		Level II		Signat	ure		Date
Knott, Brian D	. /	the is	-O.K.	Æ		4	127/2008 Zol	lner B	rian		Kin	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Dia	5.	4-2008
Examiner	Level	H	2	Signature		·····		Review				Signat			Date
Timm, Jeremy	Т.	/	he b	45		4	127/2008 Phill	IPE.B	ukes	Ph	lline	: Buk	us Ma	N4200	ප
Other	Level	N/A	17	Signature			Date ANII	Review				Signat	ure (	y _	Date
N/A								Tames Will	Viene	iq	Jame	whe	emery	5MAY0	3

<b>A B</b> asmi	mion	Site/Unit:	KPS	/ 1			Proce	dure:	ER-AA-	NDE-UT-810 I	Rev. O		Outage	No.:	K1R29
	Su	mmary No.:	K1	.B5.40.003		Pr	ocedure l	Rev.:		0		-	Report	No.: U	T-08-245
		Workscope:	·	ISI		W	ork Order	No.:		07-004170		_	P	age: 1	of 1
Code:	4	SME Sect.	XI 98 Ed/00 Add		Cat./Item:	В	-F/B5.40			Location:			CONTAINME	тт	
Drawing No.:			ISIM-940-2		De	escription: 6" S	SAFE EN	D TO NOZZ	LE WEI		· · · · · · ·				
System ID:	RC - RE	ACTOR COC	DLANT - FROM PR	ESSURIZER TO PR	RESSURIZI	ER RELIEF TA	NK								
Component ID:	ISIM-940	-2 / PR-W26	DM / B5.40						Size/l	Length:	6"/20.8"		Thickness/Di	ameter: 1	.25"/6.625"
Limitations:	Yes, See	Attatched	Supplemental She	et						Start	Time:	1350	Finis	h Time:	1622
	Instru	ment Setting	gs	·	Search	Unit		Cal.	<b>T</b>	Data		Δγί	al Orientated S	earch Unit	
Serial No.:		01R5	iNW	Serial No.:		V0450		Checks	Time	Date	Calibr		Signal	Sweep	1
Manufacturer:		GE INSP		Manufacturer:	M	EGASONICS		Initial Cal.	1538	4/27/2008	Refle		Amplitude %	Division	Sound Path
Model:		USN 6	* <u></u>	Size: 2 (15mm		·		Inter. Cal.	NA NA		<u> </u>	A			
Delay:	8.4744us	Ŭ	2.345"	Freq.: 1.5 M		Style: CS		Inter. Cal. Inter. Cal.	NA NA						ļ
	0.2320"/U	<u> </u>	Square 0%	Exam Angle:	35L	# of Elements:	DUAL	Final Cal.	1541	4/27/2008					
Damping:	500 Ohms Auto/High		076 2.0 Mhz.	Mode:					Couplar	h	}				
Filter:	NA NA	Mode:	FullWave	Measured Angl Wedge Style:	e:	35 D-SBS	·	Cal, Batch;	-	 07143	<u>├</u> ────	Circumf	erential Orient	ated Search	Linit
Voltage:	450	Other:	P/W:330				•••••••			RACE 40	Calibr		Signal	Sweep	T
Ax. Gain (dB):	NA	Circ. Ga	ain (dB): 42.9		Search Un	it Cable				CH INC.	Refle		Amplitude %	Division	Sound Path
10 Screen D	Div. = 2.3	45 in. of	Sound Path	— Туре:	(2) BNC T	o Limo: RG-17	4	Exam Batch		07 143	ID No	otch	80%	4.0	.936"
Linearity Report	t No.:	 L	-08-003	Length: 6	' No.	Conn.:	0			RACE 40	ļ				
	Calil	oration Bloc	k		Scan Cov	/erage		Mfg.:	SONOTE	ECH INC.				<u></u>	+
Cal, Block No.:		WPS	6-17	Upstream 🔄	Downstrea	m 📋 Scan dB	: <u>NA</u>	Ref	erence E	Block		Re	eference/Simul	ator Block	
Thickness:	0.719"	Dia.:	6	cw 🗹	CCV	N 🗹 Scan dB	48.9	Serial No.:		UXE017A	Gain		Signal	Sweep	Sound Path
Cal. BlkTemp.	.: <u>70</u> T	emp. Tool:	257125	Exam Surface:		OD				RN. BLOCK	dB NA	Reflect	or Amplitude %	6 Division	
Comp. Temp.:	_ <b>79</b> ⊤	emp. Tool: _	257125	Surface Condit	ion:	Flush								1	
Recordable in	dication(s)	: Ye	s 📄 No 🖌	(If Yes, Ref. Attac	ched Ultras	onic Indication f	Report.)								
Results:	Accept	Rej	ject	Info 📋 See Attat	ched Supp	plemental Repo	ort For C	overage.	Co				S=43mm (CIR	C)	
Percent Of Cov	verage Obta	ined > 90%:	No	Reviewed Prev	vious Data:	Yes					sk Inform	ea vyeia.			
Examiner	Level	= 1		Signature	······	Date	Review	er		Level	₩,	Sign	ature		Date
Knott, Brian D	).	the	in U.A	not		4/27/2008	Zoll	ner K	rion		Bu	ans	aller	5.	-4-2008
Examiner	Level		1	Signature		Date	Site Re	view			OA IA	Sigh	ature		Date
Timm, Jeremy			my E	the -		4/27/2008		PE.Bu	Kes	Z	Killy	<u>s C. T.</u>	Jukes	<u> May 4</u> ,	2008
Other	Level	N/A		Signature		Date	ANII R	-			$\neg$	Sign	ature	v C	Date
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<b>M</b> Domb	nion	Site/Unit:	KPS	/	1			Proce	edure:	ER-AA-	NDE-UT-810	Rev. 0		Outage	No.:	K1R29	
	Sum	mary No.:		K1.B5.4	0.003			Procedure	Rev.:		0		_	Report	No.: U	T-08-247	,
	W	orkscope:		IS	l			Work Orde	f No.:		07-004170			P	age: 1	of <b>1</b>	
Code:	ASI	ME Sect. X	(1 98 Ed/00 Add			Cat./Item:		B-F/B5.40	· · · · · · · · · · · · · · · · · · ·		Location:			CONTAINME	NT		-
Drawing No.:			ISIM-940-2			D	escription:	6" SAFE EN	ID TO NOZZ	LE WE	LD			<u> </u>			
System ID:	RC - REAC	TOR COO	LANT - FROM	PRESS	URIZER TO PR	ESSURIZ	ER RELIEF	TANK									
Component ID:	ISIM-940-2	/ PR-W260	OM / B5.40		······		<u>-</u>			Size/	Length:	6"/20.8"		Thickness/D	ameter:	1.25"/6.625"	
Limitations:	Yes, See A	ttatched S	upplemental Si	neet							Start	Time:	1546	Finis	h Time:	1558	
	Instrume	ent Setting	S			Search	Unit		Cal.					al Orientated S	earch Unit		Ξ
Serial No.:		01R5	NW	;	Serial No.:		V0451		Checks	Time	Date	Calibr		Signal	Sweep	<b></b>	
Manufacturer:		GE INSPE		I	Manufacturer:	N	EGASONI	cs	Initial Cal.	1415	4/27/2008	Refle		Amplitude %	Division	Sound Pat	ιh
Model:		USN 60		;	Size: 2 (15mm	x25mm) S	Shape: <b>RE</b>	ECTANG,	Inter. Cal.	NA		ID No	otch	80%	4.0	1.112"	
Delay:	8.3747us	Range:	2.722"	<u> </u>	Freq.: 1.5 M	/HZ	Style:	CSS	Inter. Cal. Inter. Cal.	NA							
	0.2320"/Us	Pulser:	Square		Exam Angle:	45L.		ants: DUAL	Final Cal.	NA 1624	4/27/2008	<b> </b>				<u> </u>	
Damping:	500Ohms	- Reject: -	0%		Mode:	·	ITUNDINA		L		LJ						
	Auto/High	- Freq.:	2.0 Mhz.		Measured Angle	e:	45			Coupla		}	]			<u> </u>	<del></del> ,
Filter: Voltage:	NA 450	_ Mode: Other:	Fullwave P/W: 330		Wedge Style:		D-SBS		Cal. Batch:	<u>.                                    </u>	07143 RACE 40			erential Orient			
Ax. Gain (dB):	53.5	- Circ. Gai		Δ		Search Un	uit Cable		· · · · · · · · · · · · · · · · · · ·		ECH INC.	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Pat	th
10 Screen D			Sound Path		Туре:		o Limo: RC	3-174	·			N	A	· · · · · · · · · · · · · · · · · · ·			
		· ···· ·· —			Length: 6	· /	Conn.:	0	Exam Batch		07143						
Linearity Report		· · · · · · · · · · · · · · · · · · ·	08-003		·	Scan Cov					RACE 40 ECH INC.						
	Calibra	tion Block			Linetreem 🗔		-		wiig	5011011							_
Cal. Block No.:		WPS					m 🖌 Scar		Ref	erence	Block	<u> </u>	Re	eference/Simul		<del></del>	
Thickness:	0.719"	Dia.:	6		cw 🗌		<u> </u>	n dB: <u>NA</u>	Serial No.:	ME	UXE012A	Gain dB	Reflect	or Amplitude %	6 Division	Sound Pat	ťh
Cal. Blk. Temp.:		· _	257125		Exam Surface:		OD		Type: PC	ALTE	RN. BLOCK	NA					
Comp. Temp.:		np. Tool:	257125		Surface Conditi		Flus										_
Recordable Inc	dication(s):	Yes	No <b>∨</b>	] (If	Yes, Ref. Attac	hed Ultras	ionic Indicat	ion Report.)					<u> </u>			<u> </u>	_
Results:	Accept 🖌	Reje	ect	Info	See Attat	ched Sup	plemental F	Report For C	overage.	C		) Contour sk Inform					
Percent Of Cov	erage Obtaine	əd > 90%:	No	<u> </u>	Reviewed Prev	ious Data:	<u> </u>	es									
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Examiner	Level	=	/	7 Sigr	nature /			ate Site R	eview			Q 1 11	Sign	ature		Date	
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<b>W</b> Domi	inion	Site/Unit:	KPS	/ 1			Proc	edure:	ER-AA-	NDE-UT-810 I	Rev. 0		Outage	No.:	K1R29
	Sun	nmary No.:	K	I.B5.40.003			Procedure	Rev.:		0	_	_	Report	No.: U	T-08-250
	W	/orkscope:		ISI			Work Orde	er No.:		07-004170			P	age: 1	of 1
Code:	AS	SME Sect. X	1 98 Ed/00 Add		Cat./Item		B-F/B5.40	)		Location:			CONTAINME	NT	
Drawing No.:			ISIM-940-2		Į,	Description	6" SAFE EN	ND TO NOZZ	LE WE						
System ID:	RC - REA	CTOR COO	LANT - FROM PF	ESSURIZER TO F	RESSURI	ZER RELI	EF TANK								
Component ID:	ISIM-940-	2 / PR-W260	OM / B5.40	·					Size/	_ength:	6"/20.8"		Thickness/Di	ameter: 1	.25"/6.625"
Limitations:	Yes, See	Attatched S	upplemental She	et						Start	Time:	1559	Finis	h Time:	1604
	Instrum	ent Setting	s		Searc	h Unit		Cal.					al Orientated S	e e roh Unit	
Serial No.:		01R51	<b>W</b>	Serial No.:		V0452		Checks	Time	Date	Calibi				
Manufacturer:		GE INSPE		Manufacturer:		MEGASO	NICS	Initial Cal.	1426	4/27/2008	Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	sw	Size: 2 (15m	mx25mm)	Shape:	RECTANG.	Inter. Cal.	NA		ID N	otch	80%	4.0	1.55"
Delay:	6.6956us	Range:	4.0"	Freq.: 1.5	MHZ	Style:	CSS	Inter Cal.	NA						
M'tl Cal/Vei:	0.2320"/Us	Pulser:	Square	Exam Angle:	60L	# of Eler	ments: DUAL	Inter. Cal.	NA 1990	4/07/0000					
Damping:	500 Ohms	Reject: _	0%	Mode:	LON	GITUNDIN	AL	Final Cal.	1626	4/27/2008					
Rep. Rate:	Auto/High	Freq.:	2.0 Mhz.	Measured Ang	gle:	60			Couplar					· _ · ·	1
Filter:	NA	- Mode: -	Fullwave	Wedge Style:		D-SBS		Cal. Batch:		07143		Circumf	erential Orient	ated Search	Unit
Voltage:	450	Other:	P/W: 330							RACE 40	Calib Refle		Signal Amplitude %	Sweep Division	Sound Path
Ax. Gain (dB):	52.7	Circ. Gai	` '	— _	Search U			Mfg.:	SONOT	ECH INC.	N				
10 Screen D	Div. = 4.0	in. of	Sound Path	Туре:		To Limo: I	······	Exam Batch	h:	07143		<u> </u>			+
Linearity Report	t No.:	<u>L-</u>	08-003	Length:		o. Conn.: _	0	· · · · · · · · · · · · · · · · · · ·		RACE 40					
	Calibr	ation Block			Scan Co	overage		Mfg.:	SONOTI	ECH INC.			······		
Cal. Block No.:		WPS	-17	Upstream 🖌	Downstre	am 🖌 Sc	an dB: 52.7	Ref	ference	Block		R	eference/Simul	ator Block	
Thickness:	0.719"	Dia.:	6	cw 🗋	cc	CW 🗌 So	an dB: NA	Serial No.:		UXE012A	Gain dB	Deflect	Signal	Sweep	Sound Path
Cal. Blk. Temp.	.: <u>70</u> Tei	mp. Tool:	257125	Exam Surface	e: 	OD	<u></u>	Type: PL		RN. BLOCK	NA	Renect	or Amplitude %	6 Division	
Comp. Temp.:	<b>79</b> Tei	mp. Tool:	257125	Surface Cond	lition:	Flu	ish	· · · · · · · · · · · · · · · · · · ·							<u> </u>
Recordable in	dication(s):	Yes	No 🔽	(If Yes, Ref. Att	ached Ultra	isonic Indic	ation Report.)								
Results:	Accept 🔽	Reje	ect 🗌	Info 🔲 See Atta	atched Sup	pplementa	I Sheet For C	overage.	C				<sup>-</sup> S=50mm (AX)		
Percent Of Cov	verage Obtair	ned > 90%:	No	Reviewed Pro	evious Data	i:	Yes				sk Inform	ea vveia.			
Examiner	Level	" /	``````````````````````````````````````	Signature			Date Review	wer	~	Level .	II	Sign	ature		Date
Knott, Brian D	D/	Kre	m D.X	not		4/27			Bria	v)	K	im	sollier_		5-4-2008
Examiner	Level	11	11	Signature			Date Site R	leview		,	011	Sign	ature		Date
Timm, Jeremy	у Т		Inte	5		4/27		I.P.E.Ba	ikes		Phil	lype C	Buke	May 4,	2008
Other	Level	N/A	//	Signature				Review				1	ature	U ·	Date
N/A								amos Wh	liemera	$\subseteq$	- Iam	WN (	emery	5MM	108

# **Supplemental Report** Report No .: UT-08-241 Dominion Page: l of 1 Summary No .: KI. B5. 40. 00 3 Level: Reviewer: Brian Zollner Kus Rollin Date: 5-4-2008 Examiner: Jeremy Timm Site Review: Phillip E. Bukes Phillip C. Buke Date: May Y 2008 Examiner: Brian D. Knott St Level: II. Kyla Level: Ng ANII Review: James under and undiemour Na Date: 5MAY08 Other: Comments: Weld: PR-26DM Sketch or Photo: 2. 3. 4. 5. **Thickness Measurements** 1. 1.35" 2. 1.25" 3. 1.20" CL 4. 1.16" 5. 1.07" Nozzle Safe-End Total Risk informed Examination Volume = 0.9455 sq. Inches .4396 sg. Inches Examined in axial direction with 45 degree or 46% .2338 sq. Inches Examined in axial direction with 60 degree or 25% .3845 sq. Inches Examined in axial direction with 60 degree or 41% Total Risk Informed Coverage Achieved Axial 45 degree 46% Axial 60 degree 25% Circ 45 degree 41% Total 37%



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# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-8

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

# 1. ASME Code Component Affected:

8" Reactor Coolant Pipe Branch Connection Weld RC-W3BC

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.31

# 4. Impracticality of Compliance:

73.0% of Reactor Coolant Pipe 8" Branch Connection Weld RC-W3BC was inaccessible for Ultrasonic Examination due to the Branch Nozzle Configuration thus restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to perform Ultrasonic Examination for Reactor Coolant Pipe 8" Branch Connection Weld RC-W3BC would require modification of the original design of the Reactor Coolant Pipe.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic Examination is available for Reactor Coolant Pipe Branch Connection RC-W3BC due to the Nozzle Configuration. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item No. B15.50 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was performed on Reactor Coolant Pipe 8" Branch Connection Weld RC-W3BC during the 4th

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-8

Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-J and Item No. B9.31.

## 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

## 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-27

## 9. References:

Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]

# UT Calibration



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<b>de Bomb</b>	mion S	Site/Unit:	KPS	1	1		Proce	edure:	NE	P-15.39 Rev.	2	_	Outage I	No.:	K1R29
	Sumn	nary No.;	K1	B9.31.001			Procedure	Rev.:		2		_	Report !	No.: L	JT-08-120
	Wa	rkscope:		ISI			Work Orde	r No.:		07-004170			Pa	ige: 1	of 1
Code:	ASM	IE Sect. X	1 98 Ed/00 Add		Ca	t./Item:	B-J/B9.31			Location:			CONTAINMEN	IT	
Drawing No.:			ISIM-1703	·	•	Description	n: REACTOR	COOLANT P	 PIPE 8" I	BRANCH CON	NECTIO	WELD			
System ID:	RC - REAC	TOR COO	LANT PIPING LOO	DP A											
Component ID:	ISIM-1703 /	RC-W3BC	; / B9.31						Size/	Length: 8	3"/36.30"	-,,	Thickness/Di	ameter:	2.34"/8.625"
Limitations:	Single Side	d Exam di	ue to Branch Con	nection						Start	Time:	1457	Finisl	n Time:	1514
	Instrume	nt Setting	5			Search Unit		Cal.				Anda			
Serial No.:	<u> </u>	071555	309	Serial No	o.:	552417		Checks	Time	Date	Calibr		I Orientated S	Sweep	- <b>T</b>
Manufacturer:		OLYM		Manufac	turer:	OLYMF	PUS	Initial Cal.	1155	4/17/2008	Refle		Amplitude %	Division	Sound Path
Model:		EPOC		Size:	0.50"	Shape:	ROUND	Inter. Cal.	1456 NA	4/17/2008	1/4 T	hole	80%	2.0	0.585"
Delay:	10.44 Us 0.2228"/Us	Range: _ Pulser:	2.950"	Freq.:	2.25 MH		C106	Inter. Cal. Inter. Cal.	NA		3/4 T		20%	6.0	1.755"
M'tl Cal/Vel: Damping:	400 Ohms	Reject:	Square 0%	Exam Ar Mode:	ngle:	0 # of Ele	ements: Single	Final Cal.	1608	4/17/2008	1T Bad	Kwall	70%	8.0	2.34"
Rep. Rate:	Auto	Freq.:	2.0 Mhz.	Measure	d Anale:	LONGITUNDI N			Couplar	nt				*	
Filter:	0.8-3.0 Mhz.	Mode:	Fullwave	Wedge :		NA		Cal. Batch:		07143		Circumfe	rential Orienta	ted Searc	h Unit
Voltage:	NA	Other:	Energy: Max					Туре:	SONOTI	RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	3.4	Circ. Gai			Sea	rch Unit Cable		Mfg.:	SONOTE	ECH INC.	Refle		Amplitude %	Division	
10 Screen D	)iv. = <b>0.295</b>	in. of	Sound Path	Type:		BNC to MCD: R	······	Exam Batch	n:	07143	N	<u> </u>			
Linearity Report	No.:	L-4	08-001	Length:	6'	No. Conn.:	0	··· ·····		RACE 40					
	Calibrat	tion Block				an Coverage		Mfg.:	SONOTI	ECH INC.					
Cal. Block No.:		WPS	<u></u>	Upstream	ц.	vnstream 🔽 S		Ref	erence	Block		Ref	erence/Simula		<b>.</b>
Thickness:	2.34"	Dia.:	8.00"	_	N 🔽		can dB: <u>NA</u>	Serial No.:	L	MT-048	Gain dB	Reflecto	Signal r   Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp.		p. Tool:	257125	Exam Si	_	10		Туре:	RO	MPAS	3.4	1.0"	80%	3.4	1.0"
Comp. Temp.:		p. Tool: Vac	257125		Condition:	d Ultrasonic Indi	nooth							<u> </u>	
Recordable Inc	.,	Yes	ф <u>ш</u>				cation report.)		_			L	<u> </u>	<u> </u>	
Results:	Accept 🖌	Reje	ect	Info 📋					C				7 & 8 Are Lin To Configuration To Configuration		
Percent Of Cov	erage Obtaine	d > 90%:	<u> </u>	Review	ed Previous	s Data:	Yes			Co	nnection	. See Atta	tched Sheets	For Cover	age.
Examiner	Level	1	21	Signature			Date Review					Signal	ture /		Date
Knott, Brian D		Jrea	<u>- U. Kn</u>	ott		4/1		ecemy i	Timm			by to	top		4/22/08
Examiner Johnson, Jeff	Level			Signature		A/1	Date Site R		B. Va	~	Ð	Signat	ture <i>C A b</i>		
Other		V/A /	p-	Signature			Date ANII F	ILIP E.	DEVE	<u> </u>		Sibnat		» april	Date
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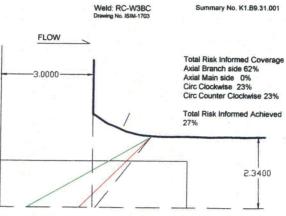


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<b>See</b> nom	inion <sup>. S</sup>	Site/Unit:	KPS	/ 1		Proce	edure:	NE	P-15.39 Rev.	. 2		Outage I	No.:	K1R29
	Summ	nary No.:	К1.В	9.31.001		Procedure	Rev.:		2		_	Report I	No.: L	IT-08-137
	Wo	rkscope:		ISI		Work Orde	r No.:		07-004170		-	Pa	ige: 1	of <u>1</u>
Code:	ASN	AE Sect. X	1 98 Ed/00 Add	(	Cat./Item:	B-J/B9.31			Location:			CONTAINME	NT	
Drawing No.:			ISIM-1703		Descript	ion: REACTOR	COOLANT P	 PIPE 8" I	BRANCH CO	NNECTIO	N WELD			
System ID:	RC - REAC	TOR COO	LANT PIPING LOOP	РА										
Component ID:	ISIM-1703 /	RC-W3BC	; / B9,31				·	Size/I	_ength:	8"/36.30"	· · · · ·	Thickness/Dia	ameter:	2.34"/8.625"
Limitations:	Single Side	d Exam dı	le to Branch Conne	ection					Star	t Time:	1533	Finisl	n Time:	1548
	Instrume	nt Setting	s		Search Unit		Cal.	Time	Date		Avia	Orientated S	earch Unit	
Serial No.:	<u></u>	071555	309	_ Serial No.:	012C6	in	Checks	11116		Calib		Signal	Sweep	┓━━━━┤
Manufacturer:		OLYM		Manufacturer:	KRAUTK		Initial Cal.	1145	4/17/2008	Refle		Amplitude %	Division	Sound Path
Model:		EPOC		Size:0.50		ROUND	Inter, Cal.	1532 NA	4/17/2008	<u>1 T N</u>		80%	2.0	3.31"
Delay:	6.507 Us	Range:	16.026"	_ Freq.:1.5 MI			Inter. Cal.	NA		211		20%	4.0	6.62"
M'tl Cal/Vel:	0.1236"/Us	Pulser:	Square	_ Exam Angle:		Elements: Single	Final Cal.	1636	4/17/2008	3 T N	lotch	8%	6.0	9.93"
Damping:	400 Ohms	Reject:	0%	Mode:	SHEAR		L	<u></u>		' <b> </b>				
Rep. Rate:	Auto	Freq.:	2.0 Mhz.	_ Measured Angle:		45		Couplar						
Filter:	0.8-3.0 Mhz. NA	- Mode: Other:	Fullwave Energy: Max	_ Wedge Style:	MSM		Cal. Batch:		07143	·		rential Orienta	ited Searc	
Ax. Gain (dB):	22.8	Circ. Gai		-	earch Unit Cab	10	···		RACE 40	Calibri Refle		Signal   Amplitude %	Sweep Division	Sound Path
10 Screen (		- in. of	Sound Path	– Type:	BNC to MCD:		·		07143	N	A			
Linearity Repor		· -		Length: 6'	No. Conn.	: 0	Exam Batcl Type:		0/ 143 RACE 40	· [				
		tion Block			Scan Coverage	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		ECH INC.	·			;	
Cal. Block No.:		WPS		Upstream 🗂 D	)ownstream 🔽	Scan dB: <b>28.8</b>				·	Ref	erence/Simula	ator Block	-l
Thickness:	2.34"	Dia.:	8.00"	cw 🔽	ccw	Scan dB: 34.8	Serial No.:	ference l	ыоск МТ-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp	.: 68 Tem	p. Tool:	257125	Exam Surface:		סכ	Зела № Туре:		MPAS	. <u>dB</u>		Amplitude %		<u></u>
Comp. Temp.:	60Tem	p. Tool:	257125	Surface Condition	n:S	mooth	· ,po			14.9	0.75" SDI	H <u>80%</u>	.65	1.095"
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Results:	Accept 🖌	Reje	et 🗌 🛛 Ir	nfo 🗌				Co				7 & 8 Are Lin		
Percent Of Cov	verage Obtaine	d > 90%:	No	Reviewed Previo	ous Data:	Yes						To Configura ched Sheets I		
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Examiner	Level		1 5	Signature		Date Site R	eview			OA IA	Signati	ure		Date
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aine service se		hary No.:	K1.	B9.31.001			Procedure			2		_	Report N	<del></del>	T-08-140
		rkscope:		ISI			Work Orde		· · ·	07-004170		_		ge: 1	of 1
Code:	ASM	E Sect. X	1 98 Ed/00 Add		Cat./Item:	<u> </u>	B-J/B9.31			Location:			CONTAINMEN	т	
Drawing No.:			ISIM-1703	<u> </u>	- Des	cription: F	REACTOR		 PIPE 8" E						
System ID:	RC - REACT	FOR COO	LANT PIPING LOC	P A		· -									
· Component ID:	ISIM-1703 /	RC-W3BC	C / B9.31						Size/	_ength: t	3"/36.30"	······	Thickness/Dia	meter:	.34"/8.625"
_imitations:	Single Side	d Exam d	ue to Branch Coni	nection						Start	Time:	1551		Time:	1607
	instrumer	nt Setting	s		Search U	nit				<u> </u>					
Serial No.:		071555		Serial No.:		2C6M		Cal. Checks	Time	Date			Orientated Se		
Manufacturer:		OLYM	PUS	 Manufacturer:	KRA	UTKRAM	ER	Initial Cal.	1140	4/17/2008	Calibr Refle		Signal	Sweep Division	Sound Path
Model:		EPOC	H 4		50" Sha	ape: R	OUND	Inter. Cal.	1550	4/17/2008	1 T N	otch	80%	4.0	4.177"
Delay:	10.44 Us	Range:	10.372*	Freq.:1.5	MHZ S	tyle: C	OMP-G	Inter. Cal.	NA		2 T N	otch	40%	8.0	8.354"
VI'tl Cal/Vel:	0.1305"/Us	Pulser: _	Square	Exam Angle:	#	of Elemer	nts: Single	Inter. Cal. Final Cal.	NA 1612	4/17/2008					
Damping:	400 Ohms	Reject:	0%	Mode:	SH	EAR		•	•						<b>_</b>
Rep. Rate:	Auto	Freq.:	2.0 Mhz.	Measured Ang		60			Couplar	nt					<u> </u>
Filter:	0.8-3.0 Mhz.	Mode:	Fullwave	Wedge Style:	N	ISWQC		Cal. Batch:		07143	ļ	Circumfer	ential Orienta	ted Search	Unit
Voltage:	NA 24.2	Other:	Energy: Max	_	Consta I Initi	0-bl-		· · · · · · · · · · · · · · · · · · ·		RACE 40	Calibr Refle		Signal Mplitude %	Sweep Division	Sound Path
Ax. Gain (dB):	34.3 Div. = 1.372	Circ. Gai	n (dB): <u>NA</u> Sound Path	 	Search Unit		74	Mfg.:	SONOTE	CHINC.	N	+·			
		in. of		Type: Length: 6	5' No. C		0	Exam Batcl		07143		<u> </u>			
Linearity Repo	rt No.:		08-001					···		RACE 40					
	Calibrat	ion Block	:		Scan Cove	-		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:	: 	WPS	-49		Downstream			Ref	ference l	Block		Ref	erence/Simula	tor Block	
Thickness:	2.34"	Dia.:	8.00"	cw []	CCW	Scan	dB: <u>NA</u>	Serial No.:	L	MT-048	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp	· ·	o. Tool:	257125	Exam Surface:		OD		Туре:	ROM	IPAS	14.1	0.3" SDH		.60	0.595"
Comp. Temp.:	Temp	o. Tool:	257125	Surface Condi		Smoot									
Recordable Ir	ndication(s):	Yes	□ No 🗹	(If Yes, Ref. Atta	iched Ultrason	ic Indicatio	on Report.)								
Results:	Accept 🖌	Reje	ect	Info 🔄					C				onfiguration (		
Percent Of Co	verage Obtained	d > 90%:	No	Reviewed Pre	vious Data:	Y.	es			Se	e Attatch	ed Sheets	For Coverage	Percenta	je.
Examiner	Level			Signature		Da	ate Review	wer				Signat	19/1		Date
Knott, Brian	D. 🦯		2 0. XV	st		4/17/20	08 J.	cremy	Timm	1		LE	65		4/22/08
Examiner	Level			Signature		Da	ate Site R	eview	_		ONN	Signat			Date
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Other	Level	NA (		Signature		D	ate ANII F					Signat	ure (		Date
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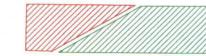
<b>Marit</b> a and	inion	Site/Unit:	KPS	1	1		Proce	edure:	NE	P-15.39 Rev.	. 2		Outage N	<b>\o</b> .:	K1R29
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	v	Vorkscope:		ISI			Work Orde	ar No.:		07-004170		_	Pa	ige: 1	of 1
Code:	A	SME Sect. X	(  98 Ed/00 Add		Cat./Ite	em:	<b>B-J/B9.3</b> 1			Location:			CONTAINMEN	IT	
Drawing No.:			ISIM-1703			Descriptio	n: REACTOR	COOLANT F	 PIPE 8"	BRANCH CO	NNECTIO	WELD	······		
System ID:	RC - REA	CTOR COO	LANT PIPING L	DOP A									**************************************		
Component ID:	ISIM-170	3 / RC-W3BC	C/B9.31						Size/	Length:	8"/36.30"		Thickness/Dia	ameter: 2	.34"/8.625"
Limitations:	Single Si	ded Exam d	ue to Branch Co	onnection						Star	t Time:	1516	Finist	n Time:	1530
· · · · · · · · · · · · · · · · · · ·	Instrur	nent Setting	s		Sea	rch Unit		Cal.	[	-		٨			
Serial No.:		071555	5309	Serial No.:		A14592	2	Checks	Time	Date			al Orientated S		T
Manufacturer:		OLYM	PUS	Manufactu	rer:	AEROT	ECH	Initial Cal.	1150	4/17/2008	Calibr		Signal Amplitude %	Sweep Division	Sound Path
Model:	<u></u>	EPOC	H 4	Size:	0.50"	Shape:	ROUND	Inter. Cal.	1515	4/17/2008	N/	A			
Delay:	6.890 Us	Range:	6.260"	Freq.:	1.0 MHZ	Style: _	Comp-G	Inter. Cal.	NA						
M'tl Cal/Vel:	0.1230"/Us		Square	Exam Ang	le: <u>34</u>		ements: Single	Inter. Cal. Final Cal.	NA 1634	4/17/2008					
Damping:	400 Ohms	— <u> </u>	0%	Mode:		SHEAR		La	Coupla		·				
Rep. Rate:	Auto 0.8-3.0 Mhz	Freq.: _ . Mode:	1.0 Mhz. Fullwave	Measured	-	MSWO	4	Cal. Batch:	-	07143		Circumfe	erential Orienta	tod Sourch	
Voltage:	NA	Other:	Energy: Ma	Wedge St	yie:	1412040				RACE 40	•				1
Ax. Gain (dB):	26.4	- Circ. Gai			Search	Unit Cable	•	· · · ·		ECH INC.	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
10 Screen D	Div = 0.62		Sound Path	Туре:	BNC	to MCD: R	G-174	Exam Batcl		07143	1T N	otch	80%	4.8	3.31"
Linearity Repor			08-001	Length:	6'	No. Conn.:	0			RACE 40	· [				
Enounty ropor					Scan	Coverage				ECH INC,	·				<u></u>
Cal. Block No.;	Callb	ration Block WPS		Upstream	Downs	tream ⊡ S	ScandB: NA	·			·		(		
Thickness:	2.34"	Dia.:	8.00"	cw		d	Scan dB: 38.4		erence		Gaìn	Ke	ference/Simula Signal	Sweep	
Cal. Blk. Temp.			257125	Exam Sur		0		Serial No.:		MT-048	. dB	Reflecto	or Amplitude %		Sound Path
Comp. Temp.;		emp. Tool:	257125	Surface C			nooth	Туре:	RO	<b>MPAS</b>	. 10.0	0.3"SD	H 65%	.65	0.367"
Recordable In		·		<u> </u>		trasonic Ind	ication Report.)						·		
Results:			ect 🗍	Info 🗌			• • •		C	omments: S	cans 7 & A	Are Limi	ted To Downst	ream Base	Metal Only
Nesulis.	Accept 🛓								0	D	ue To Con	figuratio	n Of Branch Co		
Percent Of Cov	/erage Obtai	ned > 90%:	<u>No</u>		Previous D	ata:	Yes		_	A	ttatched S	heets Fo	r Coverage.		
Examiner	Level	"//	· 0	Signature			Date Revie		_			→ Signa	ature		Date
Knott, Brian [	).	Tople	m.V.	Knott		4/1	7/2008 Je		Timm			m &	the		4/22/08
Examiner	Level	4 1		Signature			Date Site R	leview '	<b>V</b> -		-DA	Signa		<i>a</i> . <i>A</i>	Date
Johnson, Jeff Other		Int	<u> </u>	Signature		4/1		I.P.E.B Review	ukes		Thu	Signa		april à	<u>132008</u> Date
N/A	Level	<b>//</b> ^ ()	١	Signature				ameswirk	)	$\subset$	James	w	iemery	ZZAARIO	
L			•						~ ~						



Exmination Volume Dimensions = Height = 1.50" Length = 36.75" Width = 6.30"



Total Risk Informed Examination volume = 9.497 sq. inches.



Total Axial Examination Volume Achieved with 60 degree and 45 degree for the branch side = 5.9218 sq. inches or 62%

Circ Exmination volume where no coverage achieved with 34 degree in the clockwise direction = 7.2542 sq inches or 77%

Area Where No Examination Volume

Axial Area Where Examination Volume achieved 9.497 or 0%

achieved 3.752 or 38%

Circ Examination Volume where no coverage Achieved with 34 degree in the counter clockwise direction = 7.2542 sq inches or 77%

Total Circ Examination Volume Achieved with 34 degree in the clockwise direction = 2.2428 sq inches or 23%



Total Circ Examination Volume Achieved with 34 degree in the counter clockwise direction = 2.2428 sq inches or 23%

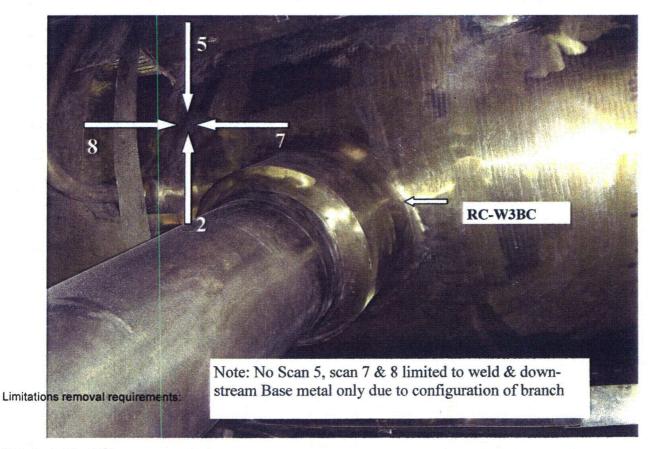


# **Limitation Record**

Site/Unit:	KPS 1 1	Procedure:	NEP-15.39	Outage No.:	KIRZ9
Summary No.:	K1. B9.31.001	Procedure Rev.:	Z	Report No.:	05-08-120
Workscope:	151	Work Order No.:	07-004170	Page:	of

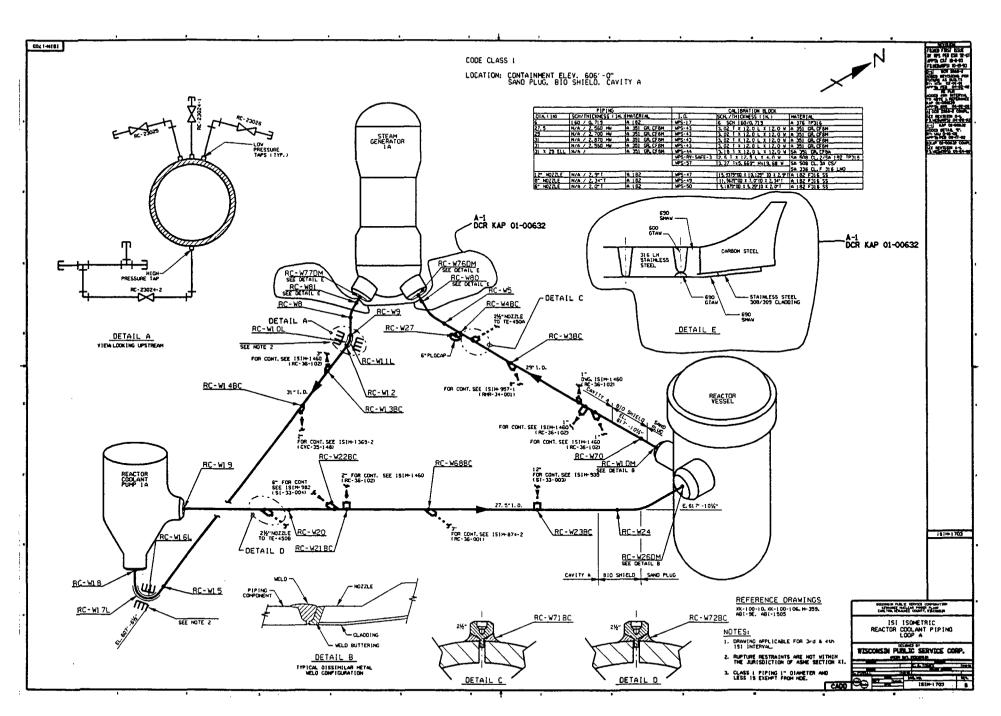
Description of Limitation: Due To Configuration.

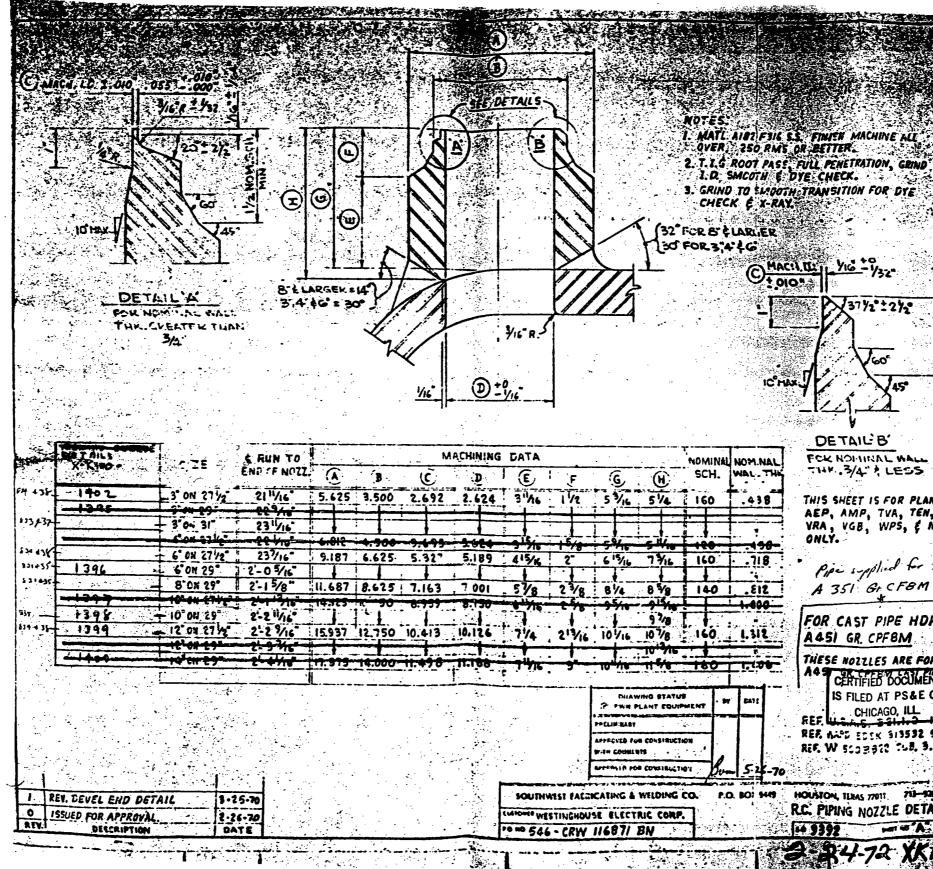
#### Sketch of Limitation:



Radiation field: 150mc

Examiner     Level     II     Signature     Date     Site Review     Signature     Date       JEFF rey     M. JOHNSUN     Implement     4/17/08     Phillip E. Bukes     Phillip C. Bukes (April 22,2008)       Other     Level     Signature     Date     ANII Review     Signature     Date       Tames W. Niemerg     Date     ANII Review     Signature     Date	Examiner Brian D	Level ). Kuott	Frian	Signature	Date 4/11/48	Reviewer Jeremy	Timm		Signature	Date 9/22/08
			husunt	Signature	Date 4/17/08	Site Review		Phy		
	Other	Level	0	Signature	Date			$\subset$	1 .	





<u>{</u>37 yz\*±2 yz\* 45 FOR NOMINAL MALL THE .3/4" ! LESS THIS SHEET IS FOR PLANTS AEP, AMP, TVA, TEN, DLW, VRA, VGE, WPS, & NRP, Pipe supplied for K- is A 351 Gr CFBM FOR CAST PIPE HDR. A451 GR. CPF8M THESE NOILLES ARE FOR A49 CERTIFIED DOCUMENT IS FILED AT PS&E CO. REF. LL CHICAGO, ILL RER AND EDEK SI3532 SURI. REF. W 5032912 148. 5. HOUSTON, TUMS 77011 713-528-3451 R.C. PIPING NOZZLE DETAILS HAT IS A WA

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-9

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

# 1. ASME Code Component Affected:

6" Reactor Coolant Pipe Branch Connection Weld RC-W22BC

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.31

# 4. Impracticality of Compliance:

50.0% of Reactor Coolant Pipe 6" Branch Connection Weld RC-W22BC was inaccessible for Ultrasonic Examination due to the Branch Nozzle Configuration thus restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to perform Ultrasonic Examination for Reactor Coolant Pipe 6" Branch Connection Weld RC-W22BC would require modification of the original design of the Reactor Coolant Pipe.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic Examination is available for Reactor Coolant Pipe Branch Connection RC-W22BC due to the Nozzle Configuration. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item No. B15.50 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was performed on Reactor Coolant Pipe 6" Branch Connection Weld RC-W22BC during the 4th

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-9

Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-J and Item No. B9.31.

## 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

## 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-28 for similar branch connection RC-W4BC

#### 9. References:

Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]



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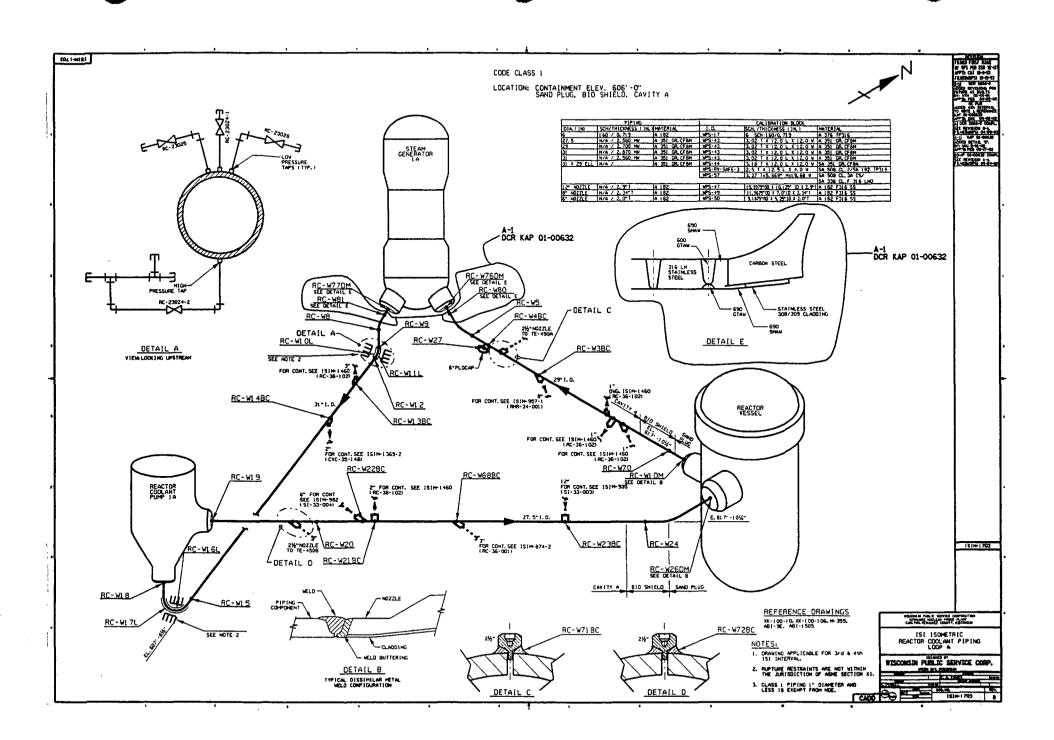
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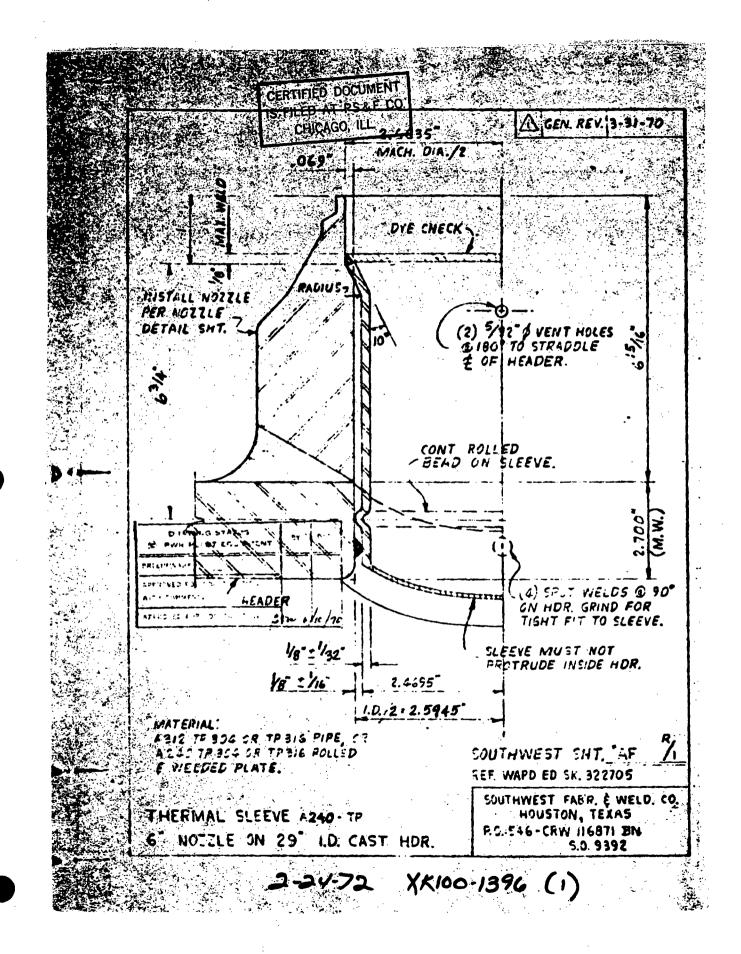
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### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-10

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

### 1. ASME Code Component Affected:

6" Pressurizer Relief Circumferential Weld PR-W27

### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

### 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.11

### 4. Impracticality of Compliance:

50.0% of the 6" Pressurizer Relief Circumferential Weld PR-W27 was inaccessible due to the Safe End to Elbow Configuration thus restricting Ultrasonic Examination.

### 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 6" Pressurizer Relief Circumferential Weld PR-W27 would require modification of the original design of the Pressurizer and Pressurizer Relief Piping.

### 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item B15.50 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was performed on 6" Pressurizer Relief Circumferential Weld PR-W27 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-10

Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-J and Item No. B9.11.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-43 for similar circumferential weld PR-W17

#### 9. References:

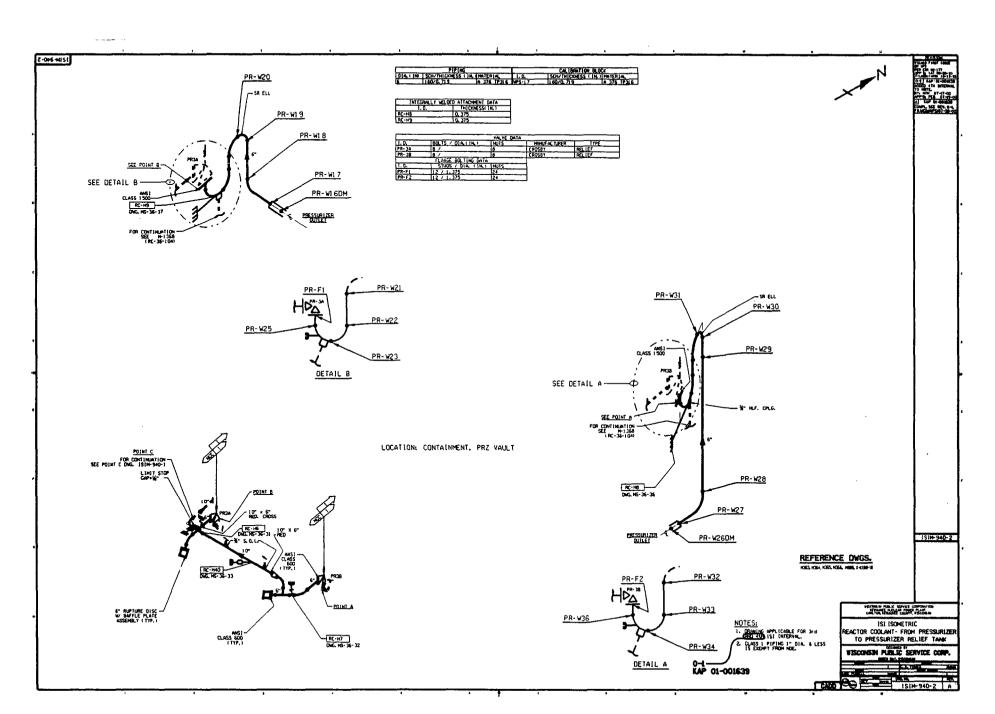
Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]

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# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-11

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

# 1. ASME Code Component Affected:

6" Reactor Coolant Circumferential Weld RC-W60

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.11

# 4. Impracticality of Compliance:

50.0% of the 6" Reactor Coolant Circumferential Weld RC-W60 was inaccessible due to the Pipe to Branch Connection Configuration thus restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 6" Reactor Coolant Circumferential Weld RC-W60 would require modification of the original design of Reactor Coolant Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item B15.50 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was performed on 6" Reactor Coolant Circumferential Weld RC-W60 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-11

Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-J and Item No. B9.11.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

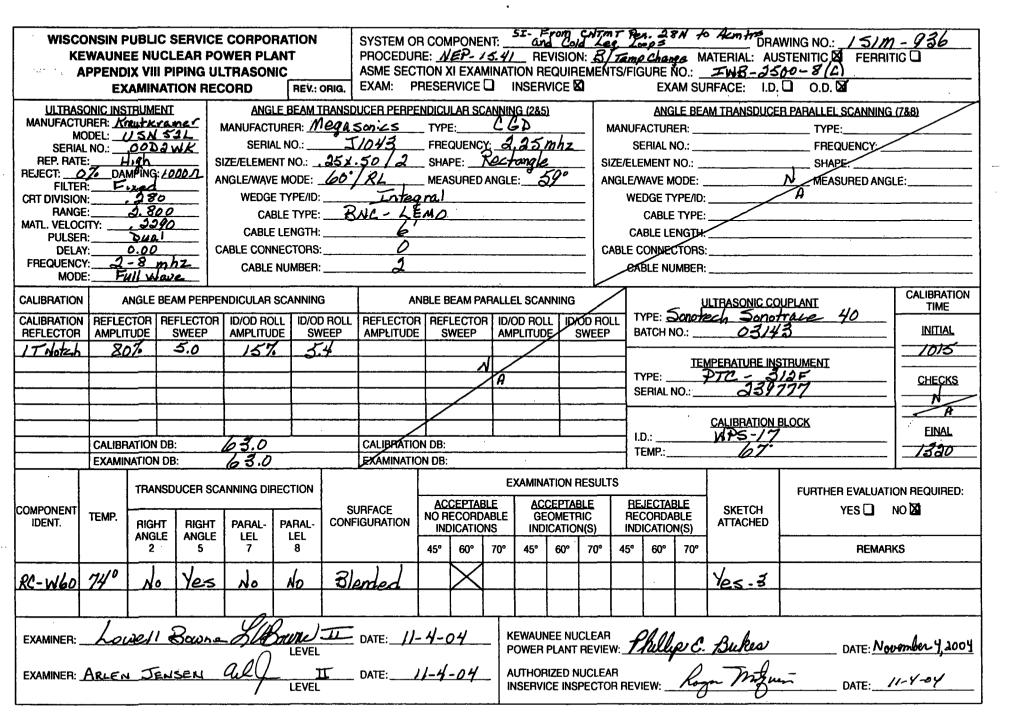
#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-69 for similar circumferential weld RC-W29.

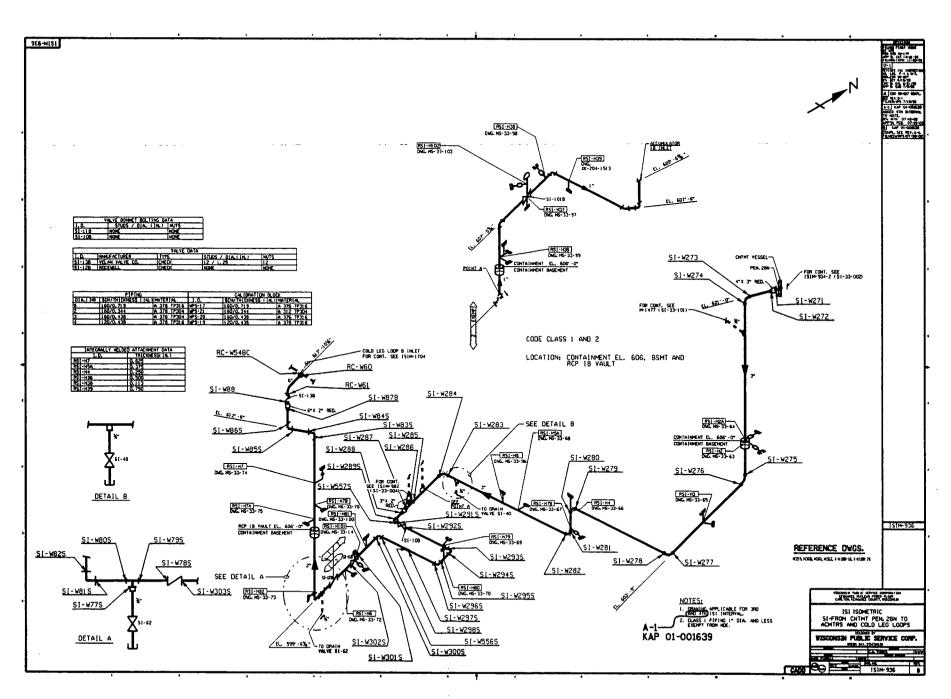
#### 9. References:

Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]

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## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-12

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

### 1. ASME Code Component Affected:

6" Safety Injection Circumferential Weld SI-W429

### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.14

## 4. Impracticality of Compliance:

50.0% of the 6" Safety Injection Circumferential Weld SI-W429 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 6" Safety Injection Circumferential Weld SI-W429 would require modification of the original design of the Safety Injection Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for the first and second periods of the Ten-Year Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 6" Safety Injection Circumferential Weld SI-W429 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for the first and second periods of the Ten-Year Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 6" Safety Injection Circumferential Weld SI-W429 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### **RELIEF REQUEST NO: RR-G-5-12**

C-F-1 and Item No. C5.14.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

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Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

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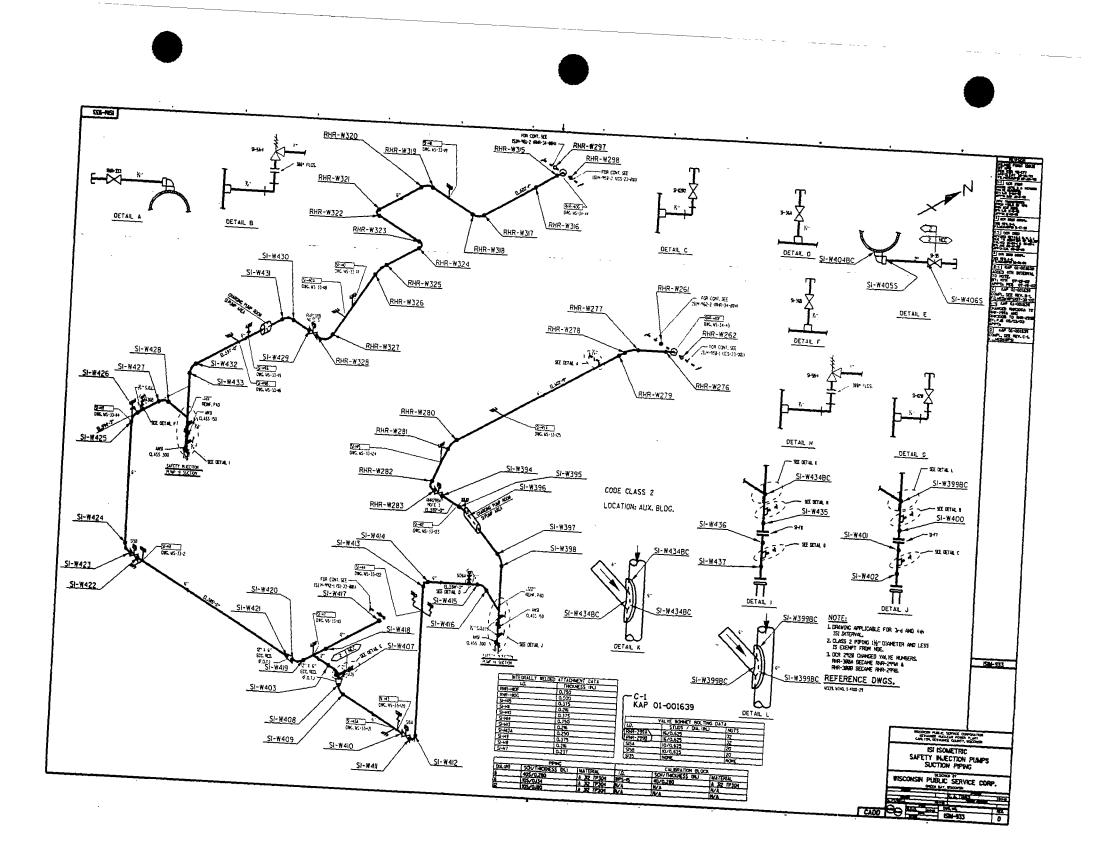
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SYSTEM OR CC	MPONENT: SAFETY INJECTION PURPS SUCTION PIPING
DRAWING NO .:	ISIM - 933
COMPONENT ID	ENTIFICATION: <u>SI-W429</u> PROCEDURE: <u>NEP-15.41</u> REVISION: Brea
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EXAMINER:	Lowell Bowne & Bown II DATE: 11-9-04 LEVEL DATE: N/A
EXAMINER:	LEVEL DATE: NA
	5 2 FLOW



# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-13

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

# 1. ASME Code Component Affected:

6" Containment Spray Circumferential Weld ICS-W180 Preservice Examination

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.13

# 4. Impracticality of Compliance:

50.0% of the 6" Containment Spray Circumferential Weld ICS-W180 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 6" Containment Spray Circumferential Weld ICS-W180 would require modification of the original design of the Containment Spray Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld ICS-W180 during the 2004 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Liquid Penetrant Surface examination to satisfy ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda Repair/Replacement requirements. Additionally examinations were performed during the second period of the 4th Ten-Year Interval as required by

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### **RELIEF REQUEST NO: RR-G-5-13**

ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for evidence of leakage.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

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Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

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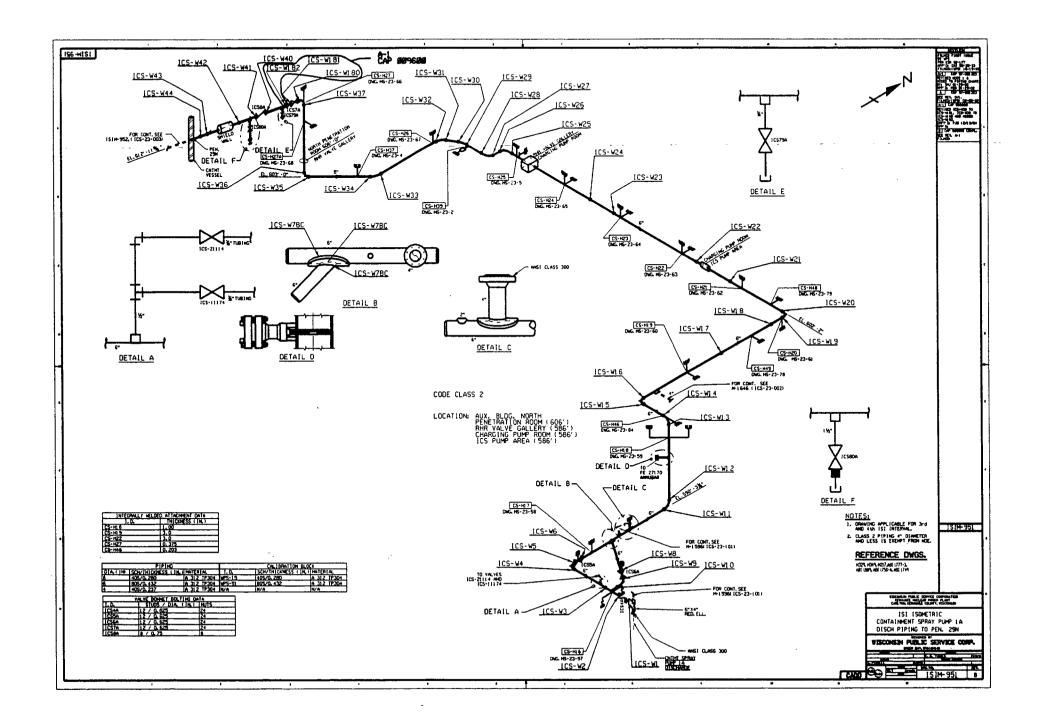
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	WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT SONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND EXAMINATION LIMITATION TO EXAMINATION RECORD
SYSTEM OR COM	APONENT: CONTAINMENT SPRAY PUMP IA DISCH PIPING TO PEN. 20
DRAWING NO .:	ESIM-951
COMPONENT ID	ENTIFICATION: ICS-W180 PROCEDURE: NEP-15.4/ REVISION: B/
ULTRASONIC:	
EXAMINER:	Jon Washburn LEVEL DATE: 11-22-04
EXAMINER:	Lowell Bowne Al DOWN IL DATE: 11-22-04 LEVEL
	MINATION LIMITED TO SINGLE SIDE ACCESS, DUE TO ELBOW TO VALVE
CON	AINATION LIMITED TO SINGLE SIDE ACCESS, DUE TO ELBOW TO VALVE EQUATION CENTAGE OF REDUCED EXAMINATION COVERAGE: 50%
	EIGURATION CENTAGE OF REDUCED EXAMINATION COVERAGE: 50%



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-14

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

## **1. ASME Code Component Affected:**

6" Containment Spray Circumferential Weld ICS-W181 Preservice Examination

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.13

# 4. Impracticality of Compliance:

50.0% of the 6" Containment Spray Circumferential Weld ICS-W181 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 6" Containment Spray Circumferential Weld ICS-W181 would require modification of the original design of the Containment Spray Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld ICS-W181 during the 2004 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Liquid Penetrant Surface examination to satisfy ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda Repair/Replacement requirements. Additionally examinations were performed during the second period of the 4th Ten-Year Interval as required by

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-14

ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for evidence of leakage.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

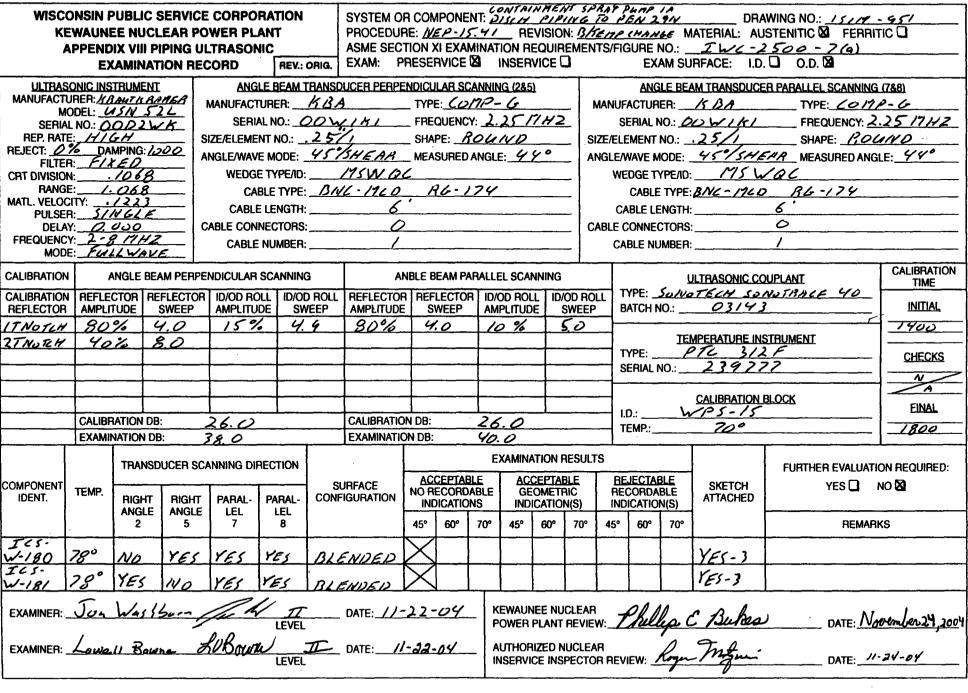
Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

### 9. References:

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Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

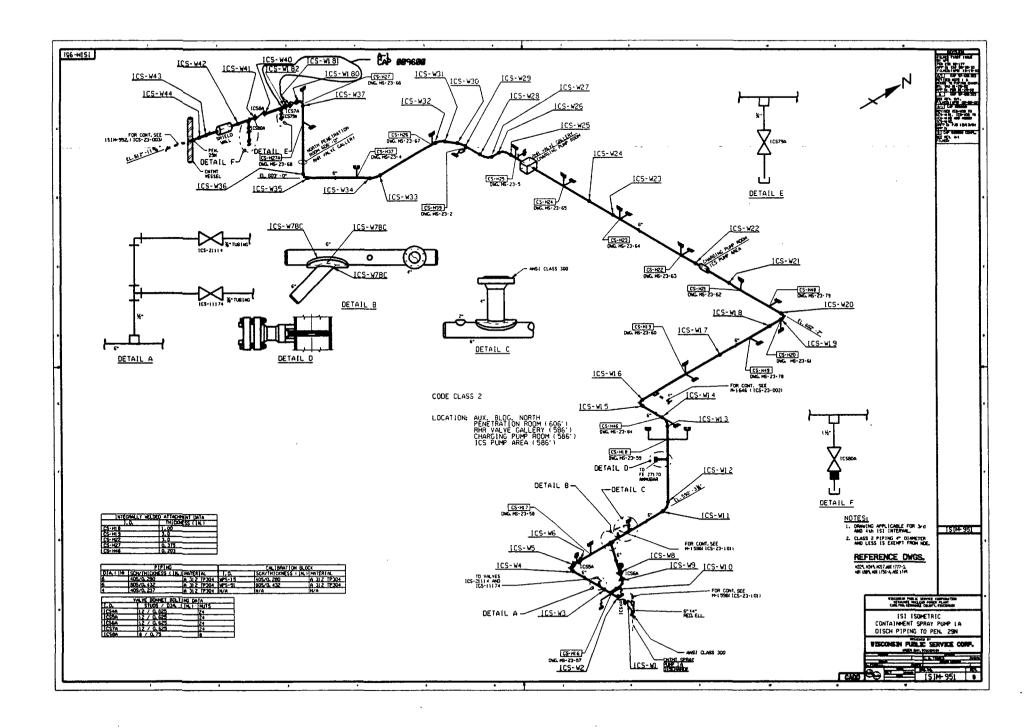




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SYSTEM OR C	OMPONENT: CONTAINMENT SPRAY PUMP IA DISCH PIPING TO PEN. 29N
DRAWING NO.	ISIM-951
COMPONENT	DENTIFICATION: ICS-WISI PROCEDURE: NEP-15.41 REVISION: 8/ C
ULTRASONIC:	
EXAMINER:	Jon Washbarn Mr II DATE: 11-22-04 LEVEL LOWELL BOWNE SUBOWN I DATE: 11-22-04
EXAMINER:	Lowell Bowne SUBOWN I DATE: 11-22-04 LEVEL
SKETCH TO PR	ROVIDE: APPROXIMATE SIZE, LOCATION, ORIENTATION, TYPE OF LIMITATION AN PERCENTAGE OF REDUCED EXAMINATION COVERAGE.
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## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-15

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## 1. ASME Code Component Affected:

6" Residual Heat Removal Circumferential Weld RHR-W419

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.13

# 4. Impracticality of Compliance:

50.0% of the 6" Residual Heat Removal Circumferential Weld RHR-W419 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 6" Residual Heat Removal Circumferential Weld RHR-W419 would require modification of the original design of the Residual Heat Removal Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for the first and second periods of the Ten-Year Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 6" Residual Heat Removal Circumferential Weld RHR-W419 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000.

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### **RELIEF REQUEST NO: RR-G-5-15**

Examination Category C-F-1 and Item No. C5.13.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

Page 2 of 2





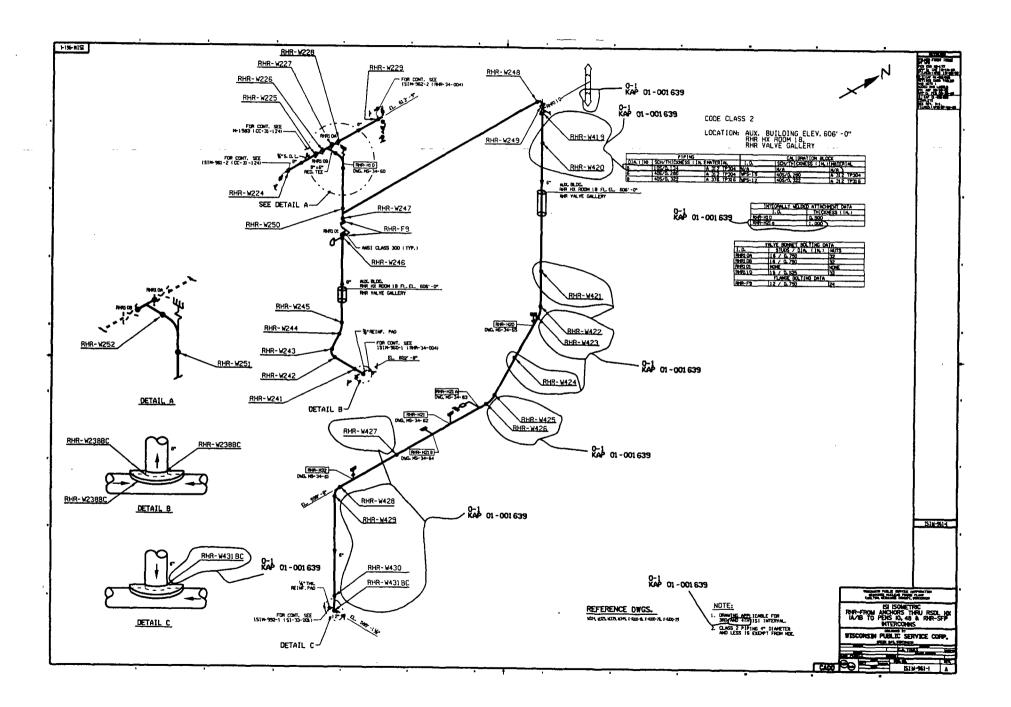
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	WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT TRASONIC, LIQUID PENETRANT, MAGNETIC PARTICLE AND UAL EXAMINATION LIMITATION TO EXAMINATION RECORD
SYSTEM C	R COMPONENT: RUR-From Anchors Three 2501. Hx 14/18 to Pans 10,48 +RUR. 5 PP Intercons
DRAWING	NO.: 15/1 -961-1
COMPONE	NT IDENTIFICATION: RHR - W419 PROCEDURE: NEP-15.41 REVISION: B/ Chang
ULTRASO	
	E Lowell Bowne Bl Bown I DATE: 11-5-04
EXAMINEF	: DAVID G. GARCIA Marthan I DATE: 11-5-04 LEVEL
	<text></text>
KEWAUNE	ENUCLEAR ANT REVIEW: <u>Phillips C. Bukes</u> DATE: <u>November 7,200</u> ED NUCLEAR INSPECTOR REVIEW: <u>Kogn Milyun</u> DATE: <u>11-8-04</u>



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-16

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## 1. ASME Code Component Affected:

6" Safety Injection Circumferential Weld SI-W51

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.11

## 4. Impracticality of Compliance:

13.33% of the 6" Safety Injection Circumferential Weld SI-W51 was inaccessible due to the 6" Pipe to Reducer Configuration thus restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 13.33% of the 6" Safety Injection Circumferential Weld SI-W51 would require modification of the original design of Safety Injection Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item B15.50 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was performed on 6" Safety Injection Circumferential Weld SI-W51 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-16

Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-J and Item No. B9.11.

1

7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

## 8. Precedents:

Not Applicable

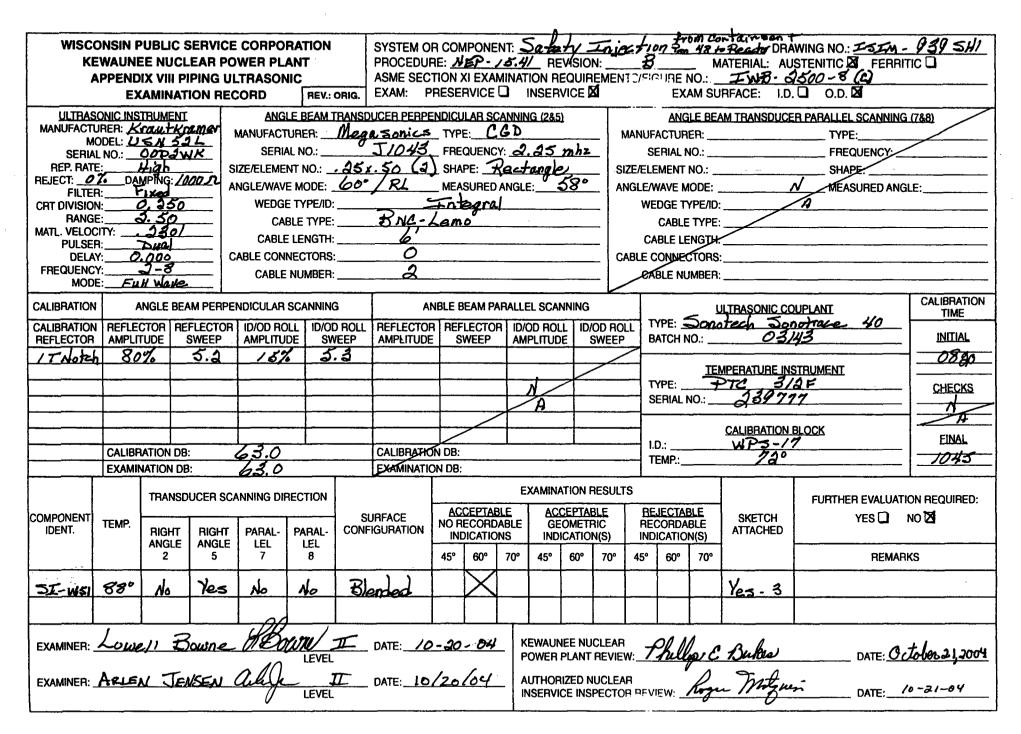
#### 9. References:

Not Applicable

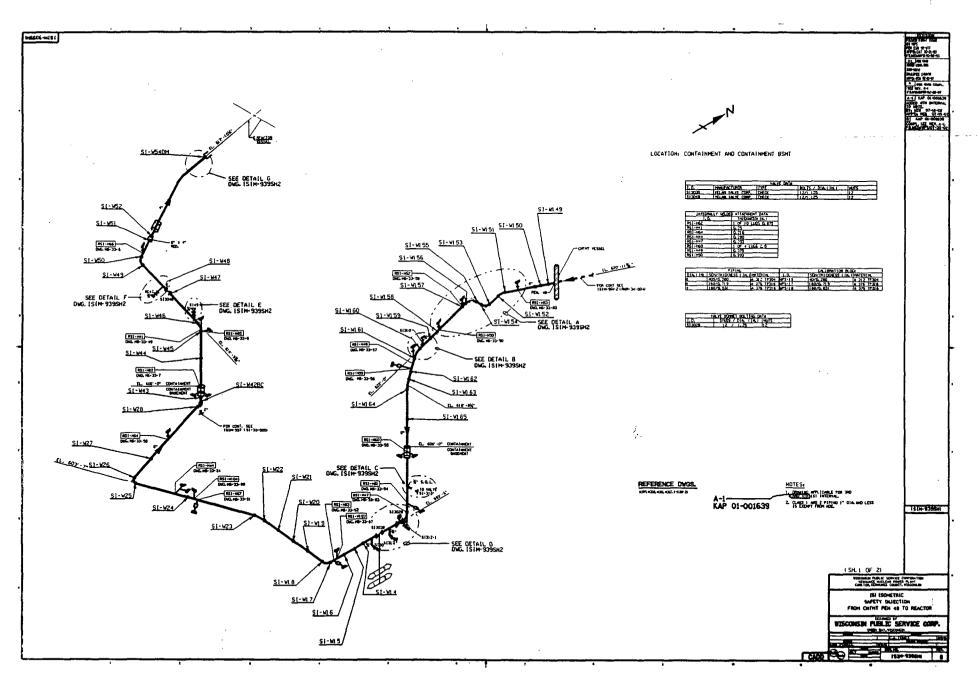


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	MPONENT: Safety Injection from Containment Pen, 48 to Reac
	ESIM - 939 SHI
	ENTIFICATION: SI-W51 PROCEDURE: NEP-15.4 REVISION: B
ULTRASONIC:	
EXAMINER: <u>Lo</u>	LEVEL
EXAMINER: <u>Ar</u>	LEN JENSEN alife II DATE: 10-20-04 LEVEL
	REDUCED CO DE RED URED EXAM VOLUME : 1.422 sq.b. 13.33%



#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-17

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### **INSERVICE INSPECTION IMPRACTICALITY**

#### 1. ASME Code Component Affected:

8" Residual Heat Removal Circumferential Weld RHR-W9

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.11

#### 4. Impracticality of Compliance:

50.0% of the 8" Residual Heat Removal Circumferential Weld RHR-W9 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

#### 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 8" Residual Heat Removal Circumferential Weld RHR-W9 would require modification of the original design of the Residual Heat Removal Piping.

#### 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWB-2500-1; Examination Category B-P Item B15.50 for the first and second periods of the Ten-Year Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 8" Residual Heat Removal Circumferential Weld RHR-W9 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda:

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-17

2500-1; Examination Category B-J and Item No. B9.11.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

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<b>M</b> tomi	nion	Site/Unit:	KPS	1	1		Proc	edure:	ER-AA-	NDE-UT-802	Rev. 0		Outage N	No.:	K1R29
	Sun	nmary No.:	H	(1.89.11.056		-	Procedure	• Rev.:		0		-	Report N	No.: U'	T-08-125
	v	/orkscope:		ISI		-	Work Ord	эт No.:		07-004170		_	Pa	age: 1	of 1
Code:	AS	ME Sect. )	(I 98 Ed/00 Add		Cat./I	tem:	B-J/B9.1	1		Location:			CONTAINMEN	NT	· · · · · · · · · · · · · · · · · · ·
Drawing No.:			ISIM-957-1SH1		-	Description	n: 8" PIPE TO	VALVE WE	LD					<u></u>	
System ID:	RC - RHR	FROM RC	LOOPS A & B H	OT LEGS TO	CNTMT PEN.	9 & TO CN1	MT SUMP B			······································	·		<u> </u>		
Component ID:	ISIM-957-	1SH1 / RHR	R-W9 / B9.11				· · · · · ·		Size/	Length:	8"/27.08"		Thickness/Dia	ameter: 0.	812"/8.625"
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Serial No.:		06150	3112	Serial N	No.:	00XTJM	l	Checks	Time	Date	Calib	·····			
Manufacturer:		PANAME	TRICS	Manufa	cturer:	KRAUTKR	AMER	Initial Cal.	0735	4/19/2008	Calibi Refle		Signal mplitude %	Sweep Division	Sound Path
Model:		EPOC	CH 4	Size:	0.375"	Shape:	ROUND	Inter, Cal.	0914	4/19/2008	ID N	otch	80%	5.1	1.02"
Delay:	5.150us	_ Range:	2.00"	Freq.:	2.25 MHZ	Style:	COMP-G	Inter. Cal.	N/A						
	0.1222"/us	Pulser:	Square	Exam /	Angle: <u>45</u>		ments: Single	Inter. Cal. Final Cal.	N/A 1325	4/19/2008	<u> </u>				
	400 ohms	Reject:	0%	Mode:		SHEAR								<u>.</u>	
Rep. Rate:	Auto	Freq.:	2.0 MHZ		red Angle:	4			Couplar						
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Comp. Temp.:	<u>55</u> Tei	· · ·	259606		e Condition:		ound						<u> </u>		
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Percent Of Cov	erage Obtair	ned > 90%:	<u>No</u>	Review	wed Previous D	)ata:	Yes								
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<b>Se a</b> ami	inian	Site/Unit:	KF	rs /		1		Proc	edure:	ER-AA-	NDE-UT-802	Rev. 0		Outage N	No.:	K1R29
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		Workscope:			ISI		_	Work Orde	ar No.:		07-004170		_	Pa	ge: 1	of <b>1</b>
Code:		ASME Sect.	XI 98 Ed/0	0 Add		Cat./	/Item:	B-J/B9.11			Location:			CONTAINMEN	IT	
Drawing No.:			ISIM-957-	-1SH1			Descriptio	on: 8" PIPE TO	VALVE WE	LD						
System ID:	RC - RH	R FROM RO	C LOOPS A	& B HOT L	EGS TO C		I. 9 & TO CN	TMT SUMP B		<u></u>						
Component ID:	ISIM-95	7-1SH1 / RH	IR-W9 / B9.	.11			<u></u>	<u> </u>		Size/	Length:	8"/27.08"		Thickness/Dia	ameter: 0.	812"/8.625"
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Manufacturer:		PANAM	IETRICS		Manufact	turer:	KRAUTK	RAMER	Initial Cal.	0740	4/19/2008	Refle		mplitude %	Division	Sound Path
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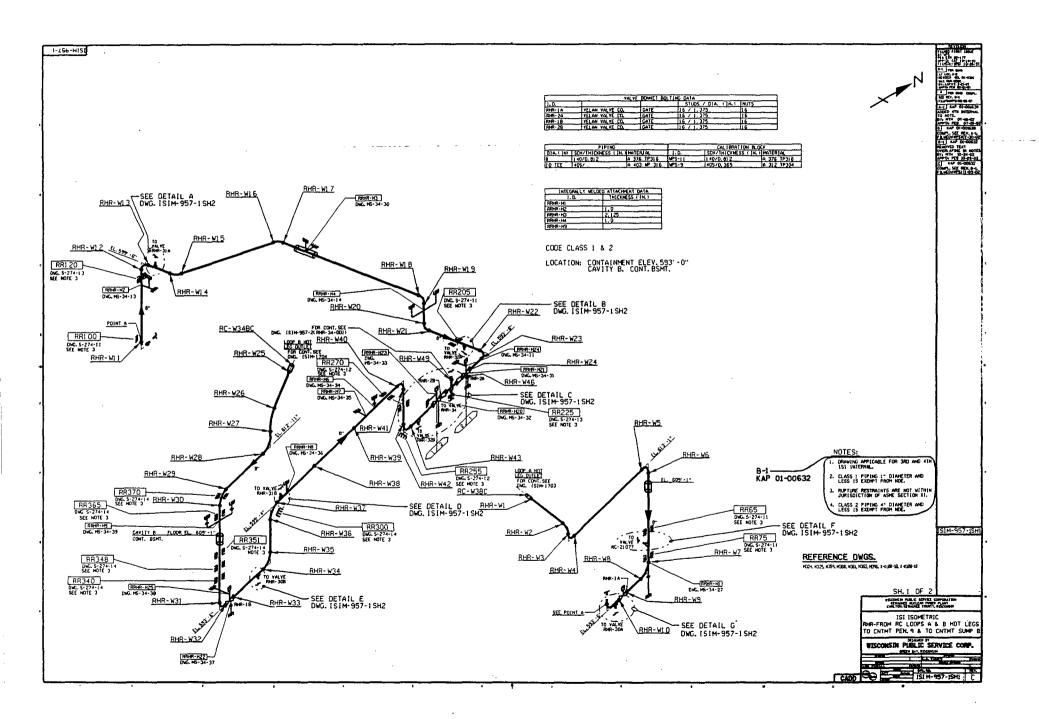
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Code:	A	SME Sect. XI	98 Ed/00 Add		Cat./It	em:	B-J/B9.11		<u> </u>	Location:		<u> </u>	ONTAINMEN	іт	
Drawing No.:		15	SIM-957-1SH1			Description: 8	" PIPE TO	VALVE WE	_ LD						
System ID:	RC - RHR	FROM RC L	OOPS A & B H	OT LEGS TO	CNTMT PEN.	9 & TO CNTMT	SUMP B								<u> </u>
Component ID:	ISIM-957-	1SH1/RHR-	W9 / B9.11				···· .		Size/	Length:	8"/27.08"		Thickness/Dia	meter: 0.	812"/8.625"
Limitations:	Limited E	xam Due to	Downstream V	alve RHR-1A						Star	t Time:	1045	Finish	Time:	1055
	Instrum	nent Settings	3		Sea	rch Unit		Cal.		_			Orientated So		
Serial No.:		00XK	65	Serial N	D.:	J1112		Checks	Time	Date	Caliba		····		r
Manufacturer:		KRAUTKR	AMER	Manufac	turer:	MEGASONIC	s	Initial Cal.	0745	4/19/2008	Calibr Refle		Signal mplitude %	Sweep Division	Sound Path
Model:		USN 5		Size: 2	(0.25" x 0.50"	) Shape: <b>RECT</b>	ANGULAF	Inter. Cal.	1044	4/19/2008	ID N	otch	80%	5.7	1.436"
Delay:	6.836us	Range:	2.5"	Freq.:	2.0 MHZ		CGD	Inter. Cal.	N/A						
	0.2320"/us	Pulser:	Dual	Exam A		# of Elemen	ts: DUAL	Inter. Cal. Final Cal.	<u>N/A</u> 1351	4/19/2008					<u> </u>
· · · · · · · · · · · · · · · · · · ·	1000 ohms		0%	Mode:		NGITUNDINAL					·				
Rep. Rate:	High	- Freq.: -	2.0-8.0 MHZ		ed Angle:	60			Couplar						
Filter: Voltage:	N/A N/A	Mode: _ Other:	Fullwave N/A	Wedge	Style:	Integral		Cal. Batch:		07143 RACE 40	·		ential Orienta		Unit
Ax. Gain (dB):	64.0	Circ. Gair		<u> </u>	Search	Unit Cable				ECH INC.	Calibi Refle		Signal mplitude %	Sweep Division	Sound Path
10 Screen Di			Sound Path	Type:		IC to MCD: RG-	174				N	A	·		
<u> </u>				Length:		No. Conn.:	0	Exam Batch		07143					
Linearity Report			8-006	`		Coverage				RACE 40 ECH INC.	·				
	Calibi	ration Block		Lingtrop		tream Scan	-R- 640				·				
Cal. Block No.:		WPS-		Upstrea	<u> </u>			Ref	erence	Block		Refe	rence/Simula		
Thickness:	0.812"	Dia.:	8.00"		_	CCW Scan	ud. <u>N/A</u>	Serial No.:	L	MT-033	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp.:		· —	259606	Exam S		OD Ground		Туре:	RO	/IPAS	56.0	0.75" SDH	75%	5.8	1.465"
Comp. Temp.:			259606		Condition:										
Recordable ind	lication(s):	Yes	□ No 🖌		er. Attached U	trasonic Indicatio	п кероп.)					·	l		
Results:	Accept 🖌	Reje	ct	Info 📋					C	omments: 50	)% Risk in	formed exa	mination area	a achieved.	
Percent Of Cove	erage Obtair	ned > 90%:	No	Review	ed Previous D	ata: Ye	S								
Examiner	Level	11	. 1/1	Signature		Da	-		~			Stgnatu			Date
Jenniges, Micl	hael J.	N	1 the			4/19/200	08 Je	ieny (	lima	۱		ms	the		572/08
Examiner	Level	11	1 1	Signature		Da			14		6	Signat			Date
Johnson, Jeffr			<u>_</u>		<u> </u>	4/19/200		I.PE.B	ukes	<b>)</b>	- TI	<u>ullip (</u>	Tuple	May	2,2000
Other	Level	N/A ()	V	Signature		Da			At		$\bigcap$	Signatu	ire Kiemeny	v 	Date
N/A .		·····				<u> </u>		James w	···· v pem	eng	$\geq$	ame	cemeny	3 MA	708

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<b>A Domi</b>	inton	Site/Unit:	KPS	1	1	_	Pro	cedure:	ER-AA-	NDE-UT-802	Rev. 0		Outage I	No.:	K1R29
	Sum	nmary No.:	K	(1.B9.11.056			Procedu	re Rev.:		0			Report I	No.: U	T-08-127
	Ŵ	orkscope:		ISI		_	Work Ore	der No.:		07-004170		_	Pa	ige: 1	of1
Code:	As	ME Sect.	XI 98 Ed/00 Add		Cat./	ltem:	B-J/B9.	11		Location:			CONTAINMEN	NT	
Drawing No.:			ISIM-957-1SH1			Description	on: <b>8" PIPE T</b>	O VALVE WE	LD					<b>_</b>	
System ID:	RC - RHR	FROM RC	LOOPS A & B H	OT LEGS TO		I. 9 & TO CN	TMT SUMP B								
Component ID:	ISIM-957-	1SH1 / RHI	R-W9 / B9.11						Size/	Length:	8"/27.08"		Thickness/Dia	ameter: 0	812"/8.625"
Limitations:	Limited E	xam Due t	o Downstream V	alve RHR-1A						Star	t Time:	1037	Finis	n Time:	1042
<u></u>	Instrum	ent Settin	gs		Se	arch Unit	- · · · · · · · · · · · · · · · · · · ·	Cal.	Time	Data		Axia	Orientated S	earch Unit	
Serial No.:		06150	3112	Serial No	o.:	00XTJ	N	Checks	Time	Date	Calibr		Signal	Sweep	
Manufacturer:		PANAM		Manufac	turer:	KRAUTK	RAMER	Initial Cal.	0743	4/19/2008	Refle		Amplitude %	Division	Sound Path
Model:	·	EPO		Size:	0.375"	Shape:	ROUND	Inter. Cal.	1025 N/A	4/19/2008		otch	80%	5.3	2.111"
Delay:	8.890us	_ Range:	4.00"	Freq.:	2.25 MHZ	Style:	COMP-G	- Unter Cal	N/A						
M'tl Cal/Vel:	0.1263"/us 400 ohms	Pulser:	Square 0%	Exam Ar	ngle: <u>70</u>		lements: Singl	Final Cal.	1329	4/19/2008					
Damping:	Auto		2.0 MHZ	Mode:	 ad Angle:	SHEAR	70		Coupla	nt	' <b> </b>				
	0.8 - 3.0 MHZ	_ ·	Fullwave	Wedge	·	MSW	-	– Cal. Batch:	-	07143	<u> </u>	 Circumfe	rential Orienta	ted Search	Unit
Voltage:	N/A	_	Pulser Energy-					-	-	RACE 40	Calib	···· 1	Signal	Sweep	Ι
Ax. Gain (dB):	31.0	— Circ. Ga	ain (dB): N/A		Searc	h Unit Cabl	9			ECH INC.	Refle		Amplitude %	Division	Sound Path
10 Screen D	Div. = 4.00	in. of	Sound Path	Туре:	BN	IC to MCD: I	RG-174	Exarn Batc	h:	07143	N	A			
Linearity Report	t No.:	 L	-08-004	Length:	6.0'	No. Conn.:	0			RACE 40	·				
		ation Bloc	k		Sca	n Coverage				ECH INC.	·				
Cal. Block No.:		WP:		Upstrea	m 🟹 Down	stream 🦳 🗧	Scan dB: <b>31.0</b>				·	I Ref	erence/Simula	ator Block	1
Thickness:	0.812"	Dia.:	8.00"	C\	<b>∧</b> □	ccw 🗌 🗄	ScandB: N/A		erence	ыоск .MT-033	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.		- – – mp. T <i>o</i> ol:	259606	Exam S	urface:	C	 D			MPAS	dB	Reflecto	+		
Comp. Temp.:	55 Ter	· -	259606	Surface	Condition:	G	round	_ Type:	KUN	VIFAS	20.0	0.3" SDI	1 58%	2.4	0.964"
Recordable In		· -	s 🗌 No 🖌	(If Yes, Re	ef, Attached I	Jitrasonic Inc	lication Report.	)							
Results:	Accept 🖌	] Re	ject	info 📋					C	omments: <b>50</b>	% Risk in	formed ex	amination are	a achieved	
Percent Of Cov	verage Obtain	ned > 90%:	No	Review	ed Previous (	Data:	Yes								
Examiner	Level		111	Signature	_		Date Revi	ewer				Signal	ture		Date
Jenniges, Mic	chael J.	ν	Mi you			4/*	19/2008 J	eiemy	Tim	M		( dra ~	to		5/2/08
Examiner	Level			Signature			Date Site	Review 1			- P	Signat	- 1	~	Date
Johnson, Jeff			~p~	Ci				MIPEBL	Kes		11	Sullip (		Maya	<b>,200 ව</b> Date
Other N/A	Level	N/A (j	V	Signature				Review Tames Wi	A			Signa Signa	Cemery	3MA)	
	<u></u>							v uney WI	iv jema	<u> </u>			<u> </u>		~0

Dominion	Report No.: UT-08-
	Page: / of
Summary No.: <u>k1, B9, 11, 056</u>	
Examiner: Jewiges Michael	J. M. Level: I Reviewer: Jeremy Timm white Date: 4/30
Examiner: Johnson Jeffrey M	The Lounds / Antiperstand Date. May 1
Other: <u>PA</u>	Level: N/A ANII Review: Jameswi Numera Janut Vimory Date: 3 MA
Comments:	
Sketch or Photo: 2. 0.820"	urements RHR-W9
3. 0.928" 4. N/A 5. N/A	Weld Crown Width 0.9" (5)
60° (J) 45°	2 E Q 60°RL 70°s
-	Valve
Pipe	
	Total Risk Informed Examination Volume = 0.5447 Sq. Inches
Axial Examination Coverage Upstream 100% 7	70 degree Best Effort Examination Coverage Downstream 43% 60 degree RL
	Total Area = .2724 Sq Inches / Best Effort Area = .1163 Sq. Inches
Circ Examination Coverage Upstream 100% With 45 Degree And Supplemented By 60 Degree	Skew Scans Circ Examination Coverage Downstream 0% 45 & 60 Degree
Clockwise And Counter Clockwise	
	Examination Volume Dimensions = Height 0.273" Length 27.75" Width 1
	Achieved 50% Risk Informed Examination Coverage



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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-18

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

8" Containment Spray Circumferential Weld ICS-W45

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.13

#### 4. Impracticality of Compliance:

50.0% of the 8" Containment Spray Circumferential Weld ICS-W45 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 8" Containment Spray Circumferential Weld ICS-W45 would require modification of the original design of the Containment Spray Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for the first and second periods of the Ten-Year Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 8" Containment Spray Circumferential Weld ICS-W45 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda:

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### **RELIEF REQUEST NO: RR-G-5-18**

Category C-F-1 and Item No. C5.13.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References: Electric Power Research Institute:

Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

<b>W</b> Domi	inian	Site/Unit:	KPS	1		-1			Proce	edure:	ER-AA-	NDE-UT-802	Rev. 0		Outage	No.:	K1R29
	Su	nmary No.:		K1.C5.	13.223			Р	rocedure	Rev.:		0			Report	No.: U	T-08-071
	v	Vorkscope:		15	SI			W	ork Orde	er No.:		07-004170		_	Р	age: 1	of 1
Code:	A	SME Sect.	XI 98 Ed/00 Ad	d		Cat	./Item:	C.	F-1/C5.1	13		Location:		AU	XILIARY BUI	LDING	
Drawing No.:			ISIM-950-1				Descri	iption: 8"	ALVE 1	TO PIPE WE	LD						<u></u>
System ID:	ICS - COI	TAINMEN	T SPRAY PUM	P SUCT	ION PIPIN	NG		_									
Component ID:	ISIM-950	1 / ICS-W4	5 / C5.13								Size/l	Length:	8"/ 27.08"		Thickness/D	iameter: 0	.322"/8.625"
Limitations:	Single si	led exam d	lue to upstrean	n Valve	ICS3A							Start	Time:	1428	Finis	sh Time:	1443
	Instrum	nent Settin	gs			s	earch Uni	ł		Cal.					l Orientated S	Soarch Unit	
Serial No.:	<u></u>	06150	)3112		Serial No	o.:	sco	)224		Checks	Time	Date	Calibi	ration	Signal	· · · · · · · · · · · · · · · · · · ·	T
Manufacturer:		PANAM	ETRICS		Manufact	turer:	KRAU	TKRAMER		Initial Cal.	1215	4/8/2008	Refle		Amplitude %	Sweep Division	Sound Path
Model:			CH 4		Size:	0.25"	Shap	e: <u>RO</u>	JND	Inter. Cal.	1427	4/8/2008	ID N	otch	80%	4.7	0469"
Delay:	4.187"/us	Range:			Freq.:	5.0 MHZ	Styl	e: <u>CON</u>	IP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	0.1230"/us	Pulser:	·		Exam An	igle:4	<b>45</b> # o	f Elements	Single	Inter. Cal. Final Cal.	N/A 1611	4/8/2008	· ·				
Damping:	400Ohms	Reject:			Mode:	<del></del>	SHE			<b>.</b>							<u></u>
Rep. Rate:	Auto	Freq.:	5.0 Mhz		Measure	• •		45			Couplar	nt		<u>_</u>		L	
_	3.0-6.0 Mhz		Fullwave		Wedge S	Style:	MS	WQC		Cal. Batch:		07143		Circumfe	rential Orient	ated Search	Unit
Voltage:	N/A	Other:	Pulser Energy			-						RACE 40	Calib Refle	ration	Signal Amplitude %	Sweep Division	Sound Path
Ax. Gain (dB):	8.5				_		rch Unit Ca			Mfg.:	SONOTE	CH INC.				DIVISION	
10 Screen [	Div. = -1.0	in.of	Sound Pat	<u> </u>	Туре:		NC to MCI			Exam Batcl	h:	07 143		<u>/A</u>			+
Linearity Repor	t No.:	L	-08-004		Length:	6'	No. Con	in.:	0	Туре:	SONOTE	RACE 40					+
	Calib	ration Bloc	:k			Sca	an Covera	ge		Mfg.:	SONOTE	ECH INC.					+
Cal. Block No.:		WP	S-12		Upstrean	n 📋 🛛 Dow	nstream 🖌	] Scan dB	: <b>20.5</b>	Ref	ierence E	Block		Re	ference/Simu	lator Block	,
Thickness:	0.322"	Dia.:	8.0"		CM	V 🔽	ccw	] Scan dE	: 24.5	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp	.: <u>73</u> Te	mp. Tool:	257125		Exam Su	Irface:		OD		Type:	RON	//PAS	dB 8.5	Reflecto		% Division 4.3	0.440"
Comp. Temp.:	_ <b>73</b> Te	mp. Tool: _	257125		Surface	Condition:	/	As Weided					0.0	0.0 00			0.110
Recordable In	dication(s):	Ye	es 🗌 🛛 No 💽	<b>i</b> (	If Yes, Re	f. Attached	Ultrasonic	Indication	Report.)					1			
Results:	Accept 🛓	Re	eject	info	<b>)</b>						Co				formed Exam	nination Cov	erage Due
Percent Of Cov	verage Obtai	ned > 90%:	No	,	Reviewe	ed Previous	Data:	Yes				to	Upstream	n vaive.			
Examiner	Level			/ Sig	nature			Date	Revie	wer			1	Signa	tupe		Date
Knott, Brian I	D. 🦯	Ru	i SK	natt	5			4/10/2008	Jeren	ny T. Timm			Charl	Ha			4/18/08
Examiner	Level		The second	Sig	nature			Date	Site R	eview		01		Signa	ture		Date
Zoliner, Brian	1 D.		Bin.	$\langle o \rangle$	the			4/10/2008	Philli	p E. Bukes		The	les C.	Buke	o a	<u>erel 18, 3</u>	008
Other	Level		100	Sig	nature			Date		Review		$\overline{}$		/ Signa			Date
Jenniges, Mic	chael J.	M	w y. yes	ノ 				4/10/2008	Jame	s W. Nieme	rg (	_/am	u U M	cemerg		APAZOOR	<u>}</u>

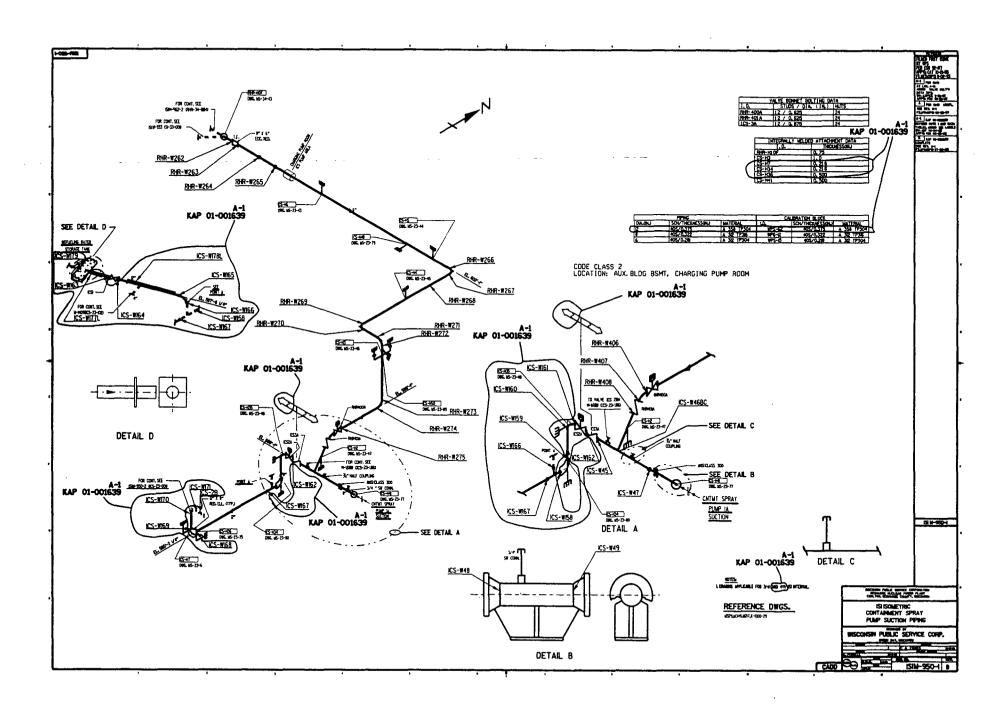
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<b>A B</b> asmi	nion S	Site/Unit:	KPS	/ 1			Proce	edure:	ER-AA-	NDE-UT-802	Rev. 0		Outage N	o.:	K1R29
	Summ	nary No.:	K1.0	5.13.223			Procedure	Rev.:		0			Report N	lo.: U	T-08-069
	Wo	rkscope:		ISI			Work Orde	er No.:		07-004170		_	Pa	ge: <b>1</b>	of 1
Code:	ASM	E Sect. )	(I 98 Ed/00 Add	<sup>_</sup>	Cat./It	em:	C-F-1/C5.1	3		Location:		AU		DING	
Drawing No.:			ISIM-950-1			Description	8" VALVE 1	O PIPE WE	LD						·····
System ID:	ICS - CONT	AINMEN	SPRAY PUMP SU	CTION PIPING											
Component ID:	ISIM-950-1 /	ICS-W45	5 / C5.13				·	- <del></del>	Size/l	ength:	B"/ 27.08"		Thickness/Dia	meter: 0.	322"/8.625"
Limitations:	Single sideo	d exam d	ue to Upstream Val	ve ICS3A				<u></u>		Start	Time:	1443	Finish	Time:	1454
	Instrume	nt Setting	15		Sea	rch Unit				<u> </u>					
Serial No.:		06150		Serial No.:		SC0138		Cal. Checks	Time	Date	0.17		I Orientated Se		1
Manufacturer:		PANAME	TRICS	 Manufacturer		KRAUTKRA	MER	Initial Cal.	1225	4/8/2008	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		EPOC	CH 4	Size: 0	.25"	Shape:	ROUND	Inter. Cal.	1442	4/8/2008	ID No		85%	5.5	0.559"
Delay:	5.870"/us	Range:	1.0"	Freq.:5.0	MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	0.1280"/us	Pulser:	Square	Exam Angle:	60	# of Elen	ments: Single	Inter. Cal.	N/A	4/0/0000					
Damping:	400 Ohms	Reject:	0%	Mode:		SHEAR		Final Cal.	1609	4/8/2008	 				
Rep. Rate:	Auto	Freq.:	5.0 Mhz	Measured An	gle:	60			Couplar	nt					
	3.0-6.0 MHZ	Mode:	Fullwave	_ Wedge Style:		MSWQ	2	Cal. Batch:		07143		Circumfe	rential Orienta	ted Search	Unit
Voltage:	N/A	Other:	Pulser Energy Ma	<u>«</u>				···	SONOTI	RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	22.9	Circ. Ga	· · ·	_	Search	Unit Cable		Mfg.:	SONOTE	ECH INC.	Refle		Amplitude %	Division	
10 Screen D	$Div_{.} = \frac{1.0"}{}$	in. of _	Sound Path	Туре:		to MCD: RO	<u>3-174</u>	Exam Batch	<b>1</b> :	07 143	N/	A			
Linearity Report	t No.:	L	-08-004	Length:	6'	No. Conn.:	0	Туре:	SONOTI	RACE 40					<u> </u>
	Calibrat	ion Bloc	k		Scan	Coverage		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:		WPS		Upstream 📋	Downs	tream 🖌 Sc	an dB: <b>28.9</b>	Def	erence l	Block		Ref	ference/Simula	tor Block	
Thickness:	0.322"	Dia.:	8.0"	cw 🗹		CCW 🖌 Sc	an dB: <b>28.9</b>	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: 73 Temp	o. Tool:	257125	Exam Surface	e:	OD		Type:		MPAS	dB 22.9	Reflecto 0.3" SDI		Division 6.1	0.600"
Comp. Temp.:	73 Temp	o. Tool:	257125	- Surface Cond	lition:	As W	elded				22.9	0.3 50	1 80%	0,1	0.000
Recordable in	dication(s):	Yes	3 🗋 No 🔽	 (If Yes, Ref. Att	ached U	trasonic Indic	ation Report.)								
Results:	Accept 🖌	Rej	iect 🕅 🛛	nfo 🗍					C	omments: Ad	cheived 50	% Risk In	formed Examin	nation Cov	erage Due
			No	 Reviewed Pr	ovioue D	ata.	Yes			Τα	o Upstrea	m Valve.			-
Percent Of Cov		a > 90%.				ala.						· · · · · · · · · · · · · · · · · · ·			
Examiner	Level	P.	· n.l	Signature		440	Date Review					1 Signa	ture		Date
Knott, Brian D		<u>ye</u>	an N. Kn	att		4/10/		ny T. Timm			/	m E	to		4/18/08
Examiner	Level			Signature		A/40	Date Site R	eview <b>6 E. Bukes</b>			PAM	Signa		с. Л	Date
Zoliner, Brian			OUAN X	Uleer_		4/ IV/		Review			1 nill	Signa	<u>Bukes</u>	april	10,-2008
Other Jenniges, Mic	Level j	M		Signature		4/10		s W. Niemer	ď	$\left( \right)$	-)anusl	·	mera	18 APR	R
		- /	- <i>y y</i>	···· ··· ··· ··· ··· ···	,						100.000	~) (d		101910	

Je Oomi	Site/Unit: KPS /		/ 1			Proce	edure:	ER-AA-	NDE-UT-802	2 Rev. 0		Outage No.:		K1R29		
	Su	mmary No.:	K1.	C5.13.223			Procedure	Rev.:		0		-	Report N	lo.: <b>U</b> '	o.: UT-08-072	
	,	Workscope:		ISI		. 1	Work Orde	r No.:		07-004170		-	Pa	ge: <b>1</b>	of <b>1</b>	
Code:	A	SME Sect.	XI 98 Ed/00 Add		Cat./Item:	;	C-F-1/C5.1	3		Location:		AUX	ILIARY BUIL	DING		
Drawing No.:			ISIM-950-1			escription: 8	VALVE T	O PIPE WE	LD							
System ID:	ICS - CO	NTAINMEN	T SPRAY PUMP SL	JCTION PIPING	-	_										
Component ID:	ISIM-950	-1 / ICS-W4	5 / C5.13		· · ·				Size/l	_ength:	8"/27.08"		Thickness/Dia	meter: 0.	322"/8.625"	
Limitations:	Single si	ded exam o	lue to Upstream Va	lve ICS3A						Sta	rt Time:	1418	Finish	Time:	1426	
	Instrument Settings S							Cal. Time Date Axial Orientated Sea						arch Unit		
Serial No.:		06150	3112	Serial No.:		SB0013		Checks	Time	Date	Calibi		Signal		г	
Manufacturer:		PANAM	ETRICS	Manufacture	: <b>K</b> I	RAUTKRAME	R	Initial Cal.	1202	4/8/2008			mplitude %	Sweep Division	Sound Path	
Model:		EPO	······	Size: 0	).25"	Shape: <b>R</b> (	DUND	Inter, Cal.	1417	4/8/2008	ID N	otch	80%	4.7	0.940"	
Delay:	8.470"/us	Range:		Freq.:2.2	5 MHZ	Style: CC	MP-G	Inter, Cal.	N/A							
	0.1293"/us		Square	Exam Angle:		# of Elemen	ts: <b>Single</b>	Inter, Cal. Final Cal.	N/A 1613	4/8/2008	╢────					
Damping:	400 Ohms		0%	Mode:		SHEAR			· · · · · · · · · · · · · · · · · · ·		<u>יייין</u> ני				<u> </u>	
Rep. Rate:	Auto	Freq.:	2.0 Mhz	Measured Ar	·	70			Couplar							
Filter: Voltage:	0.8-3.0 N/A	Mode: Other:	Fullwave Pulser Energy Ma	Wedge Style		MSWQC		Cal. Batch:		07143	-		ential Orienta			
Ax. Gain (dB):	30.0		ain (dB): N/A		Search Ur	sit Cabla		··· <u></u>		RACE 40 ECH INC.	_ Calibi Refle		Signal mplitude %	Sweep Division	Sound Path	
10 Screen E			Sound Path	 Type:		MCD: RG-17	4				-		_ <u></u>			
			<u> </u>	Length:		. Conn.:		Exam Batch		07143	-					
Linearity Report			-08-004		······································			···	SONOTRACE 40 SONOTECH INC.							
	Calib	eration Bloc			Scan Coverage Mfg				SUNUTE	CHINC.	-					
Cal. Block No .:		WP	S-12	Upstream					erence l	Block	Reference/Simulator Block					
Thickness:	0.322"	Dia.:	8.0"	CW		W 📋 Scano	dB: <u>N/A</u>	Serial No.:	L	MT-048	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path	
Cal. Blk. Temp.		· •	257125	Exam Surfac		OD		Туре:	ROM	IPAS		0.3" SDH	85%	4.2	0.842"	
Comp. Temp.:		emp. Tool: _	257125	Surface Con		As Welde					_					
Recordable In	dication(s)	: Ye	s 📄 No 🔽	(If Yes, Ref. At	tached Ultras	sonic Indicatio	n Report.)									
Results:	Accept	Z Re	ject	Info 🔄					Co		Acheived 50 o Upstrean		ormed Exami	nation Cov	erage Due	
Percent Of Cov	verage Obta	ined > 90%:	<u> </u>	Reviewed P	revious Data:	Ye	5				o opsileui					
Examiner	Level	//		Signature		Da	te Reviev	ver				Signatu	ire	2	Date	
Knott, Brian D	).	/B	rean V.K.	nott		4/10/200	)8 Jerem	y T. Timm				/hr	Æ		4/18/08	
Examiner	Level	G	+ 0-0	Bignature		Da					~	Signatu	ire		Date	
Zoliner, Brian	D		con Sal	her_		4/10/200	_	E. Bukes			Pa		. Bukes	, april	8002,81	
Other	Level		1 4 Di	Signature		Da						Signatu i W M 4	ire	T T A A	Date	
Jenniges, Mic	hael J.	m-	~ / F?			4/10/200	J8 James	s W. Niemer	g		- / ame	in Au	emera ;	BARCO	5	

	Supplemental Report	
Dominion	Report N	0.: UT-08-0-
	Pag	•••
Summary No.: KI.C5.13.23 Examiner: KNOTT, BRTA Examiner: ZOLLNER, BR Other: JEANEGES, M	AN Buin Plevel: II Site Review: Ph.II. E. Bukes Philling Bu	Date: 4/16/0 Date: April 18, Date: 18APR 08
Comments:		<u> </u>
Sketch or Photo:		
Thickness Measurements 1. NA 2. NA 3. 477" 4. 372" 5. 367"	ICS-W45 Weld Crown Width 0.6"	
	(1.) (2.) (3.) (4.) (5.)	
Valve	CL 1 70 Degree	Pipe
	Total Risk informed Examination Volume = .2005 sq inches	S
Best effort Axial Examination Coverage Upstrea Circ Examination Coverag		
	Examination Volume Dimensions = .15" Length 27.06" Width 1.47"	201 

Achieved 50% Risk Informed Examination Coverage



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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-19

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

3" Safety Injection Circumferential Weld SI-W249

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.21

## 4. Impracticality of Compliance:

50.0% of the 3" Safety Injection Circumferential Weld SI-W249 was inaccessible due to 4" x 4" x 3" Reducing Tee Configuration thus restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 3" Safety Injection Circumferential Weld SI-W249 would require modification of the original design of the Safety Injection Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code Section XI 1998 Edition 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.30 during the first and second periods of the 4<sup>th</sup> Inspection Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 3" Safety Injection Circumferential Weld SI-W249 during the 4th Interval as required by ASME Boiler

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-19

and Pressure Vessel Code, Section XI, 1998 Edition: Table IWC-2500-1; Examination Category C-F-1 and Item No. C5.21.

## 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

## 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-51.

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

## 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]
- Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

<b>M</b> Dami	Site/Unit: KPS		/	1			Proce	Procedure: E		NDE-UT-80	2 Rev. 0		Outage	⇒No.:	K1R29		
	Su	mmary No.		K1.C	5.21.021				Procedure	Rev.:		0			Repor	t No.: L	T-08-068
	١	Norkscope			ISI				Work Orde	r No.:		07-004170			I	Page: 1	of <u>1</u>
Code:	A	SME Sect	XI 98 Ed/	00 Add		Ca	t./item:		C-F-1/C5.2	:1		Location:		A	UXILIARY BU	ILDING	······································
Drawing No.;			ISIM-9	134-2			De	scription:	3" TEE TO	PIPE WELD							
System ID:	SI - SAFI	ETY INJEC	TION PUN	MPS DISCH.	PIPING TO	) PEN 28N	& RWS	τ									
Component ID:	ISIM-934	-2 / SI-W24	9 / C5.21								Size/l	Length:	3"/10.99	n	Thickness/	Diameter:	0.438"/3.5"
Limitations:	Tee Bod	y										St	art Time:	1530	Fini	ish Time:	1539
	Instru	ment Setti	igs				Search L	Jnit		Cal.				Δ.	al Orientated	Sourch Unit	
Serial No.:		0615	03112		_ Serial No	o.:	S	SC0224		Checks	Time	Date		bration	Signal	Sweep	-T
Manufacturer:		PANAN	ETRICS		Manufac	turer:	KR/	UTKRA	MER	Initial Cal.	1100	4/8/200	B Re	flector	Amplitude %	Division	Sound Path
Model:			CH 4		Size:	0.25"	Sł	nape:	ROUND	Inter. Cal.	1529	4/8/200		Notch	80%	5.7	0.628"
Delay:	4.365us	Range		1.10"	_ Freq.: _	5.0 MHZ		· —	COMP-G	Inter. Cal. Inter. Cal.	N/A N/A		┨┝━━━				
	0.1247"/us				_ Exam Ar	ngle:			ents: Single	Final Cal.	1623	4/8/200	8			<b>_</b>	+
Damping: Rep. Rate:	400 ohms Auto	Reject Freq.:		0% 0 MHZ	- Mode: Measure		5	IEAR 45		<b></b>	Couplar				<u> </u>	╂	
· · · · ·	3.0 - 6.0 MH			liwave	Wedge \$	•		MSWQC		Cal. Batch:	-	 07143		Circum	erential Orien	tated Searc	_ i \ Unit
Voltage:	N/A	Other:	Pulser E	EnergyMax					<u> </u>			RACE 40		bration	Signal	Sweep	Τ
Ax. Gain (dB):	12.7	Circ. G	ain (dB):	N/A	_	Sea	rch Unit	Cable		Mfg.:	SONOTE	ECH INC.		flector	Amplitude %	Division	Sound Path
10 Screen D	Div. = 1.1	0 in. of	Sou	nd Path	Type:	8	SNC to N	ICD: RG	-174	Exam Batch	ר <u>ייי</u>	07143	_	N/A		<u> </u>	
Linearity Report	t No.:	-	08-004		Length:	6.0'	No. (	Conn.:	0			RACE 40				<u> </u>	
		ration Blo			-				SONOTE	ECH INC.				<u> </u>	+		
Cal. Block No.:			S-20		Upstrear	Upstream Downstream Scan dB: 18.7					erence f			R	ference/Simulator Block		
Thickness:	0.438"	Dia.:	3	3.00"	- cv	N 🔽	ccw	🖌 🖌 Sca	an dB: <b>18.7</b>	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <b>73</b> Te		25	57125	Exam Si	urface:		OD		Type:		APAS		Reflect			
Comp. Temp.:	72 T	emp. Tool:	25	57125	Surface	Condition:		As We	lded	· ,po:			_ 12.7	0.3" SI	DH 60%	4.1	0.447"
Recordable Inc	dication(s)	: Y	es 📋	No 🔽	(If Yes, Re	ef. Attached	l Ultraso	nic Indica	ation Report.)								
Results:	Accept	R	eject 🗌	Ir	nfo 🗌						Co		Achieved tee config		nformed exam	ination cove	erage due to
Percent Of Cov	erage Obta	ined > 90%		No	Review	ed Previous	s Data:		Yes					<del></del>			
Examiner	Level		5	<u>) - s</u>	ignature	2			Date Review	•				2 Sign	atere	<u></u>	Date
Zoliner, Brian	D.			Supr	<u>zeu</u>	ken_		4/8/			imm			m E	tim		5/2/08
Examiner	Level	1	<i>ヺ</i> ・	Mall	ignature				Date Site R		Ve		-DI	A A -		244	Date
Knott, Brian D			ras	<u> 1. Xn</u>	ou_					ILP E.BI	rnes		Mal	<u>1</u>	Bukes	<u></u>	2, 2008 Date
Other Jenniges, Mic	Lever that .I.		2, 1/1	$n \sim 1^{\circ}$	Signature					Review ACSWINIC	all serve	$\subseteq$	) amest	Nu	lature	ZMAY	
			viy		· · ·					~		/		<u>ت</u> .			

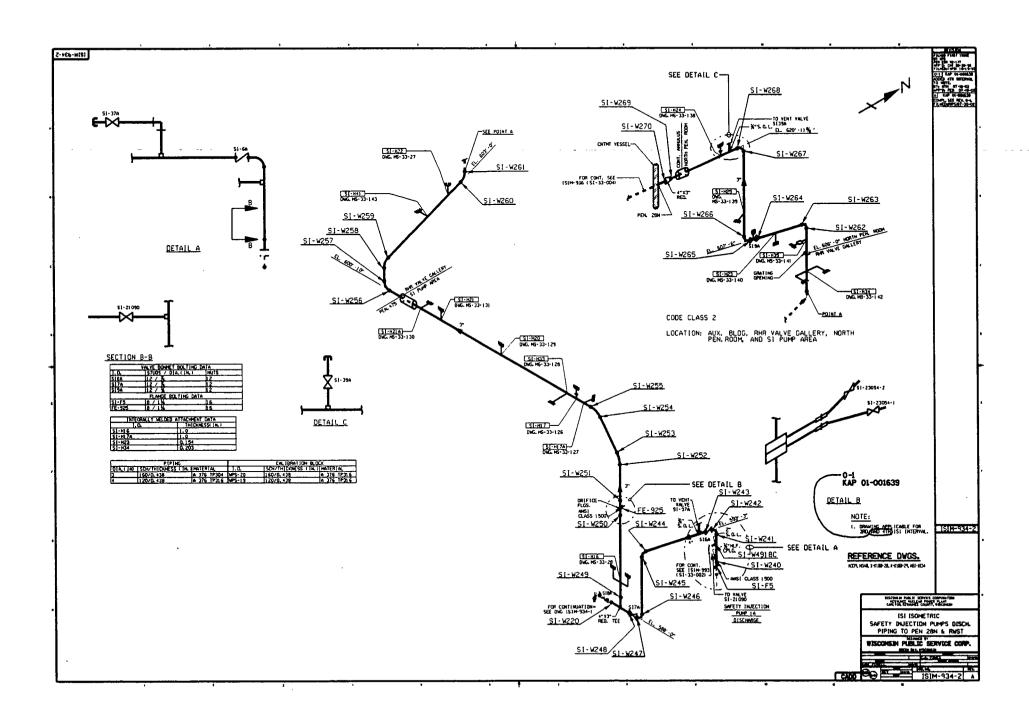
<b>Ser</b> toom	Sominion Site/Unit: KPS			/1			Proce	dure:	ER-AA-	NDE-UT-802	Rev. 0		Outage	No.:	K1R29	
	Sur	nmary No.:	K1.0	5.21.021			Procedure	Rev.:		0		-	Report No.:		T-08-192	
	v	/orkscope:		ISI			Work Orde	r No.:		07-004170		_	Pa	age: 1	of <b>1</b>	
Code:	A	SME Sect.	XI 98 Ed/00 Add		Cat./Ite	m:	C-F-1/C5.2	F-1/C5.21 Location: AUXILIARY						DING		
Drawing No.:			ISIM-934-2		_	Description	3" TEE TO I	PIPE WELD								
System ID:	SI - SAFE	TY INJECT	TION PUMPS DISCH	PIPING TO PE	N 28N & R	WST										
Component ID:	ISIM-934-	2 / SI-W249	9 / C5.21						Size/	.ength:	3"/10.99"		Thickness/Di	ameter: (	.438"/3.5"	
Limitations:	Tee Body				_					Star	t Time:	1541	Finis	h Time:	1548	
	Instrum	ent Settin	gs		Cal.				Aviel	Orientated S	oarch / Init					
Serial No.:		06150	3112	Serial No.:		SC0138		Checks	Time	Date	Colibr		Signal Swoon			
Manufacturer:	· · · · · · · · · · · · · · · · · · ·	PANAM	ETRICS	Manufacture	f:	KRAUTKR/	MER	Initial Cal.	1120	4/8/2008	Calibration Signal Reflector Amplitude %		Division	Sound Path		
Model:		EPO	CH 4	Size:	0.25"	Shape:	ROUND	Inter, Cal.	1540	4/8/2008	ID No	otch	80%	5.6	0.840"	
Delay:	5.735us	Range:		Freq.:5.	0 MHZ	_ Style:	COMP-G	Inter. Cal. Inter. Cal.	N/A							
M'ti Cal/Vel:	0.1239"/us	Pulser:	Square	_ Exam Angle:	60		nents: Single	Final Cal.	<u>N/A</u> 1627	4/8/2008						
Damping:	400 ohms	_ Reject:	0 %	_ Mode:		SHEAR					·					
Rep. Rate:	Auto 3.0 - 6.0 MH2	Freq.: Z Mode:	5.0 MHZ Fullwave	_ Measured Ar		60			Couplar			Classimfa	ential Orienta	to d Coord		
Filter:	N/A	Other:	Pulser Energy-Ma	_ Wedge Style		MSWQ	<u>ن</u>	Cal. Batch: Type:		07143 RACE 40	·	T	r			
Ax. Gain (dB):	24.0 Circ. Gain (dB): N/A				Search	Unit Cable				ECH INC.	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path	
10 Screen [			Sound Path	 Type:		to MCD: RC	6-174	°			. N/	A	N/A	N/A	N/A	
Linearity Report No.: L-08-004			Length:				Exam Batch Type:	-	07143 RACE 40							
					iype					ECH INC.						
		ation Bloc	∺k S-20	Upstream [	• • • • • • • • • • • • • • • • • • •											
Cal. Block No.:			3.00"		-		an dB: N/A	Keterence Block				Signal	Sweep			
Thickness:	0.438"	Dia.: mp. Tool:	257125	- Exam Surfac	-	OD		Serial No.:		MT-048	dB	Reflector			Sound Path	
Cal. Blk. Temp		· –	257125	- Surface Con	-	As W		Туре:	RON	MPAS	24.0	0.3"SDH	80%	4.2	0.624"	
Comp. Temp.: Recordable In		· -	s No 🗸	(If Yes, Ref. A	_		· · ·									
				•			.1,		C	ommente: A	bieved 50	% rick inf	ormed examin	ation cove	rade due to	
Results:	Accept 🔽	j re	ject	nfo 📋							e configur		Jilley exami	Iduoti COVE	age due to	
Percent Of Co	verage Obtail	ned > 90%:	<u>No</u>	Reviewed P	revious Dat	ta:	Yes									
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Other		$\checkmark$	mit y for	Signature		4/8		anes W.1	Ungung	<b>m</b> (	$\square$	Signat MAWY	/ .	ZMA	1	
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- A Domi	inian	Site/Unit:	KPS /	1			Proc	edure:	ER-AA-	NDE-UT-802 F	Rev. O		Outage	No.:	K1R29	
	Sum	mary No.:	K1.C	5.21.021			Procedure	e Rev.:	-	0		_	Report	No.: U	T-08-070	
	We	orkscope:		ISI			Work Ord	er No.:		07-004170		_	P	age: 1	of <b>1</b>	
Code:	AS	ME Sect. 2	XI 98 Ed/00 Add		Cat./Ite	em:	C-F-1/C5.	21	Location: AUXILIARY BUILDING							
Drawing No.:			ISIM-934-2			Descriptio	on: 3" TEE TO	PIPE WELD	-							
System ID:	SI - SAFET	Y INJECT	TION PUMPS DISCH.	PIPING TO PEN	28N & F	RWST										
Component ID:	ISIM-934-2	/ SI-W249	9 / C5.21	-					Size/Length: 3"/10.99" Thickness/Diameter:					ameter:	0.438"/3.5"	
Limitations:	Tee Body						-		Start Time: 1550 Finish Time: 1556							
	Instrume	ent Settin	gs		Sea	ch Unit	<u>.</u>	Cal.	Time Date Axial Orientated Search Unit							
Serial No.:	061503112 Serial No.:					SB0013 CI			Time	Date	Colibr	Calibration Signal			Г	
Manufacturer:		Manufacturer:		KRAUTK	RAMER	Initial Cal.	1145	4/8/2008	Refle		Amplitude %	Sweep Division	Sound Path			
Model:		EPO	CH 4	Size: 0.	25"	Shape:	ROUND	Inter. Cal.	1549	4/8/2008	ID No	otch	85%	5.7	1.136"	
Delay:	8.470us	Range:	2.0"	Freq.: 2.25	MHZ	Style:	COMP-G	Inter. Cal.	N/A							
M'tl Cal/Vel:	0.1293"/us	Pulser:	Square	Exam Angle:	70	# of El	ements: Single	Inter. Cal. Final Cal.	N/A 1620	4/8/2008						
Damping:	400 ohms	_ Reject:	0%	Mode:		SHEAR		ستمسم من من ا	I	LI					ļ.,	
Rep. Rate:	Auto	Freq.:	2.0 MHZ	Measured Ang	le:	7	0		Coupla		<b> </b>					
_	0.8 - 3.0 MHZ Mode: Fullwave Wedge Style:					MSWQC Cal. Batch:				07143		Circumfe	erential Orient	ated Search	Unit	
Voltage:	N/A Other: Pulser Energy-Max 30.0 Circ. Gain (dB): N/A									RACE 40	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path	
Ax. Gain (dB):	30.0	- Circ. Ga		-		Unit Cable		Mfg.:	SONOT	ECH INC.	N/		Ampinude //	DIVISION		
10 Screen I	Div. = <u>2.0</u>	in. of	Sound Path			to MCD: F		Exam Batcl	h:	07 143		<u>~</u>		<u> </u>	+	
Linearity Repor	rt No.:	L	-08-004	Length: <u>6</u>	.0'	No. Conn.:0 Type:			SONOT	RACE 40						
	Calibra	tion Bloc	k		Scan	Coverage		Mfg.: SONOTECH INC.								
Cal. Block No.;		WP	5-20	Upstream 🗌	Downst	Downstream Scan dB: 30.0				Block		Re	Reference/Simulator Block			
Thickness:	0.438"	Dia.:	3.00"	cw 🗌	(	ccw 🗌 🖇	ScandB: N/A	Serial No.:		.MT-048	Gain dB	Reflect	Signal or Amplitude %	Sweep 6 Division	Sound Path	
Cal. Blk. Temp	o.: <u>73</u> Tem	p. Tool: _	257125	Exam Surface	:	0	D	. Type:	RO	MPAS	30.0	0.3" SD		4.5	0.882"	
Comp. Temp.:	72 Terr	ap. Tool: _	257125	Surface Cond	tion:	As	Welded	-					<u> </u>			
Recordable In	ndication(s):	Ye	s 🗌 No 🖌	(If Yes, Ref. Atta	ached Uli	trasonic Ind	lication Report.)									
Results:	Accept 🖌	Re	ject 📋 Ir	ifo 🗌					C		hieved 50 configur		formed exami	nation cove	rage due to	
Percent Of Co	verage Obtaine	ed > 90%:	No	Reviewed Pre	vious Da	ata:	Yes				sconngai					
Examiner	Level	1	· ↓ s	ignature			Date Revie		-			Signa	ature		Date	
Zoilner, Briar	n D.		Alar	Solle	er	4	18/2008 J	eremy	Timm		(	Joy X	ty		5/z/08	
Examiner		1 - fr	$\overline{}$ . $\overline{}$	ignature				Review			D	Signa			Date	
Knott, Brian I	D.	P	ream d. 7	not		4		ILP E.B	ukes		Th		: Buter	May 2,		
Other	Level			Ignature		-		Review		$\sim$		Signa may W	ature	7	Date	
Jenniges, Mi	chael J.	-71	May pr			- 4	/8/2008	ameswin	emerg		a	matu	, among	ZMA	Ø	

	Supplemental Report	
3		Report No.: UT-08-068
Dominion		Page: I of I
Summary No.: _KI. < 5. 21. 021		
Examiner: Zallager Brian Prising	Level: II Reviewer: Jerem	Timm forther Date: 5/2/08
Examiner: BRIAND. KNOT Brean. Kan	ett Level: I Site Review: Philipi	E. Bukes Phillip C Bukes Date: May 2 2008
Other: MIKES. JEDUNGES milf	Level: I ANII Review: Jamesus	Nevery Dune Williameny Date: ZMAY08
Comments:		
	Weld: SI-W249	
	Weld Crown Width: .60"	Thickness Measurements
Sketch or Photo:		1. NA 2. NA
		3550"
1	Flow	4487" 5487"
TEE		5
	45/60/70 degree	
		Pipe
·		
	Total Risk Infor	med Examination Volume = .3155 sq. Inches
Best effort Examination coverage upstream 72%		tion Coverage Downstream 100% gree
Circ Examination Coverage 0% 45 degree	with 45 degr	ation Coverage Downstream 100% ee and supplemented by 60 degree Clockwise and Counter Clockwise
Examination Vol	lume Dimensions = Height .185" Length 11.50"	Width 1.65"
Achieved	50% Risk Informed Examination Covera	age



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-20

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W148 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.21

## 4. Impracticality of Compliance:

50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W148 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W148 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W148 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Liquid Penetrant Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements.

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### **RELIEF REQUEST NO: RR-G-5-20**

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

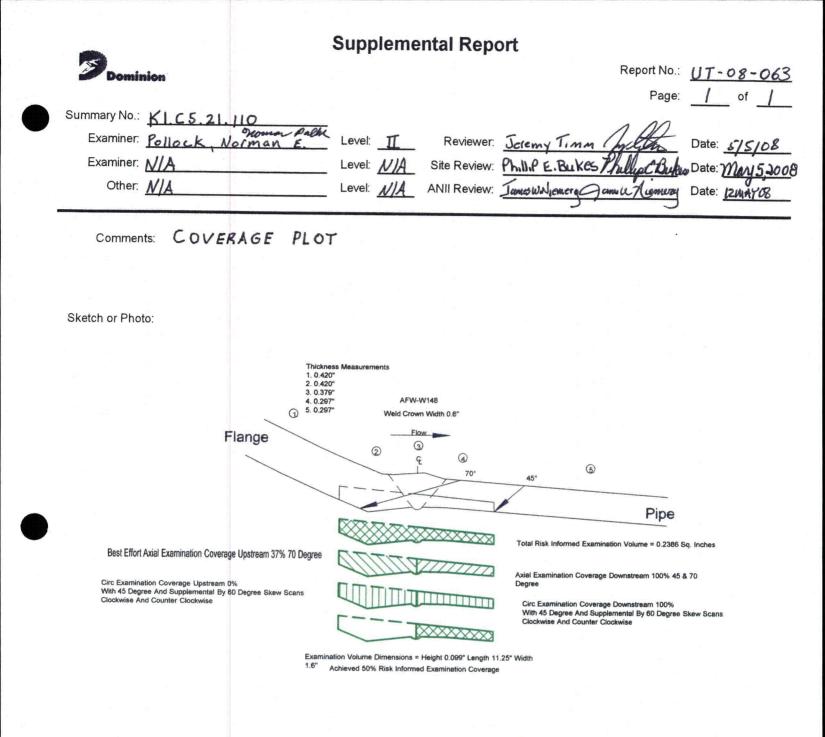
Summary No:         K1.C5.21.110         Procedure Roy:         0         Report No:         UT-08-463           Code         ASME Sect. X1 98 Ed/00 Add         Cat/Item         C-F-1/C5.21         Location:         AUXILARY EULDING           Code         ASME Sect. X1 98 Ed/00 Add         Cat/Item         C-F-1/C5.21         Location:         AUXILARY EULDING           System ID:         AFW - AUXILARY FEEDWATER PIPING FROM INTERMEDIATE ANCH. TO PEN. #46W         StorUergin:         3*10.99*         Thickness/Damator.         0.300 '75.5*           Limitations:         Access limited to downstroam side of weld due to flange configuration.         StorUergin:         3*10.99*         Thickness/Damator.         0.300 '75.5*           Limitations:         Cell INSPECTION         Manufacturer:         KRUTKRAMER         East         0.764         4/62000         Catibration         Signal         20xeep         Sound Pa           CidL24         Puble         StorU regin:		San Xanado	Site/Unit:	KPS	/ 1	••••		Proc	edure:	ER-AA-	NDE-UT-802	Rev. 0		Outage	No	K1R29		
Workscope         PSI         Work Order No:         07-064170         Page         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	<b>200</b> 4 - 200000													-				
Code:         ASME Sect. XI 98 Ed/00 Add         Cat./tem:         C-F-1/C5.21         Location:         AUXILIARY BUILDING           Drawing No:         ISIM-577-4/DI-D02         Description: 3* FLANGE TO PIPE WELD																		
Drawing No:         ISIM-477-1/01-002         Description:         3' FLANGE TO PIPE WELD           System ID:         AFW - AUXILIARY FEEDWATER PIPING FROM INTERMEDIATE ANCH. TO PEN. 446W         Size/Langh:         3'10.99'         Thicknees/Diametar         0.300'2.5 ''           Campondi ID:         ISIM-477-1/APW-W148         Size/Langh:         3'10.99'         Thicknees/Diametar         0.300'2.5 ''           Instrument Settings         Search Unit         Size/Langh:         3'10.99'         Thicknees/Diametar         0.300'2.5 ''           Skridi No:         01R5NW         Sorial No:         Score 1         Size/Langh:         Axial Orientated Search Unit         Calization         Calization         Calization         Calization         Calization						_					07-004170							
System ID:         AFW - AUXILLARY FEEDWATER PIPING FROM INTERTIEDIATE ANCH. TO PEN. #46W         Size/Longin:         3*/10.98*         Thickness/Diametor:         0.300*/7.5*           Component ID:         ISIM-477-1/AFW-W148         Size/Longin:         3*/10.98*         Thickness/Diametor:         0.300*/7.5*           Instrument Settings         Search Unit         Start Time:         0740         Finish Time:         0754           Morulacturer:         GE INSPECTION         Monulacturer:         KRAUTKRAMER         Inter. Cal.         0740         446/2005           Morulacturer:         GE INSPECTION         Monulacturer:         KRAUTKRAMER         Inter. Cal.         0740         446/2005           Marulacturer:         GE INSPECTION         Monulacturer:         KRAUTKRAMER         Inter. Cal.         NA         Inter. Cal.         NA           Marulacturer:         Start         0.300*         Freqt:         Sol MHZ         Sol MHZ         Sol MHZ         Mattime Cal.         10         Attime Cal.         Attim Cal.         Attim Cal.         Att	Code:	AS	SME Sect. X	198 Ed/00 Add		Cat./It	em:	C-F-1/C5.	21	_	Location:		AL	JXILIARY BUI	LDING			
Component ID       IsIM-477-1/AFW-W144       Size/Length:       3'10.99'       Thickness/Diameter:       0.300'73.5''         Limitations:       Access limited to downstream side of weld due to flange configuration.       Size/Length:       3'10.99''       Thickness/Diameter:       0.300'73.5''         Marulacturer:       GE INSPECTION       Manufacturer:       KRUTKRAMER       Size:       0.300'74.5''       Axial Orientated Search Unit       Other:       0.300'74.5''         Movis:       USN 05 SW       Size:       0.25''       Shape:       ROUND       Instrument Setting:       Signalitides'       Diversity       Other:       Other:       Galibration       Signalitides'       Diversity       Signalitides'	Drawing No.:		ISI	M-877-1/D1-D02			Descriptior	: 3" FLANGE	TO PIPE W	ELD								
Limitations:       Access limited to downstream side of weld due to flange configuration.       Start Time:       0740       Frish Time:       0754         Instrument Settings       Search Unit       Search Unit       Cali.       Date       Axial Orientated Search Unit       Cali.       Date       Axial Orientated Search Unit       Cali.       Date       Axial Orientated Search Unit       Cali.       Date       Cali.       Date       Axial Orientated Search Unit       Cali.       Date       Cali.       Cali.       Cali.	System ID:	AFW - AU	XILIARY FE	EDWATER PIPIN	G FROM INTER	MEDIATE	ANCH. TO F	PEN. #46W										
Instrument Settlings         Search Unit         Call         Time         Date           Sorial No::         01RSNW         Serial No::         Sco224         Callor Time         Date           Moundacturer:         GE INSPECTION         Manufacturer:         KRAUTKRAMER         Initial Call         0700         4/62/2008           Mulcici:         USN 60 SW         Size:         0.28"         Shape:         ROUND           Inter. Call         N/A         Moundacturer:         KRAUTKRAMER         Initer. Call         N/A           Micici:         USN 60 SW         Size:         0.28"         Shape:         ROUND           Inter. Call         N/A         Micia:         Origo definition         Signal         Signal           Banping:         S00 OHMS         Reject:         0%         Mode:         Stered Angle:         45         of Elements: Single         Inter. Call 1315         defizion         Angle:         One           Filter:         N/A         Mode:         FULLWAVE         Wedge Style:         MSWQC         Call Batch:         07143         Classingle         Classingle         Sound Pa           10         Score Div: =         90         in. of         Sound Pa         Mg::         SONOTRACE 40 <td>Component ID:</td> <td>ISIM-877-</td> <td>1/AFW-W14</td> <td>8</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>Size/l</td> <td>Length:</td> <td>3"/10.99"</td> <td></td> <td>Thickness/D</td> <td>liameter:</td> <td>0.300"/3.5"</td>	Component ID:	ISIM-877-	1/AFW-W14	8				-		Size/l	Length:	3"/10.99"		Thickness/D	liameter:	0.300"/3.5"		
Schicl No:     OTISNW     Serial No:     Sco224     Time     Date     Axial orientated Search Unit       Maudiacturer     GE INSPECTION     Manufacturer,     KRAUTKRAMER     Time     Date     Calibration     Signal     Sweep     Sound Pa       Mulci:     USN 60 SW     Size:     0.25"     Shape:     ROUND     Inter. Cal.     N/A     Calibration     Signal     Sweep     Sound Pa       Mill CALVel:     0.1224     Pulser:     SOUARE     Exam Angle:     45     of Elements: Single     Inter. Cal.     N/A     Inter. Cal.     N/A       Damping:     500 OHMS     Reject:     0%     Mode:     SHEAR     Columbration     Signal     Signal     Sweep     Sound Pa       Filter     N/A     Mode:     FULLWAVE     Wedge Style:     MSWOC     Cali Batch:     07143,     Chreumferential Orientated Search Unit       Voltage:     450     Othor:     Inder. Cal.     M/A     Mig:     SONOTEACE 40     Mig:     SONOTEACE 10       10     Sound Path     Type:     BNC to MCD: R0-174     Exam Batch:     07143,     N/A     Inter. Cal.     N/A       10     Sound Path     Type:     BNC to MCD: R0-174     Exam Batch:     07143,     N/A     Inter. Cal.     N/A <td>Limitations:</td> <td>Access li</td> <td>mited to do</td> <td>wnstream side of</td> <td>weld due to fla</td> <td>nge config</td> <td>uration.</td> <td></td> <td></td> <td colspan="9">Start Time: 0740 Finish Time: 0754</td>	Limitations:	Access li	mited to do	wnstream side of	weld due to fla	nge config	uration.			Start Time: 0740 Finish Time: 0754								
Serial No:       OTRSWW       Serial No:       SC0224       Checks       Inite       Call       Data         Manufacturer:       GE INSPECTION       Manufacturer:       KRAUTKRAMER       Initial Call       0700       4/82000s       Calibration       Reflector       Amplitude %       Divesion       Sound Pa         Del.y:       3.7606       Range       0.900"       Freq:       5.0 MHZ       Style:       Compring:       Compring:       Calibration       Reflector       Amplitude %       Divesion       Sound Pa         Mit Cal/Vel:       0.1224       Pulser:       SOUMAR       Exam Angle:       45       # of Elements: Single       Inter. Cal.       N/A	····	Instrument Settings Search Unit										<b></b>	At.		Convols Ultrit			
Marufacturer:         GE INSPECTION         Manufacturer:         KRAUTKRAMER         Initial Cal.         O780         4/6/2008         Stignal         Stignal <t< td=""><td>Serial No.:</td><td></td><td>-</td><td></td><td>Serial No.:</td><td></td><td>SC0224</td><td></td><td>1</td><td>Time</td><td>Date</td><td></td><td></td><td></td><td></td><td></td></t<>	Serial No.:		-		Serial No.:		SC0224		1	Time	Date							
Moriadi         USN 60 SW         Size:         0.25"         Shape:         ROUND         Inter. Cal.         0740         4/6/2008         ID NOTCH         80%         5.0         4.57"           Caluy:         3.7606         Range:         0.900"         Freq::         5.0 MHZ         Syle::         COMPAC         Inter. Cal.         0740         4/6/2008         ID NOTCH         80%         5.0         4.57"           Mill CalVet         0.1224         Pulser:         SQUARE         Exam Angle:         45         # of Elements: Strigte         Final Cal.         1315         4/6/2008         ID NOTCH         80%         5.0         4.57"           Rep. Rate         AUTO HIGH         Freq::         5.0 MHZ         Mede:         SHEAR         Cal. Batch:         07143.         Circumterential Orientated Search Unit         Stright         Stright         Stright         Sound Pat         Type:         SONOTRACE 40         Mig::         SONOTRACE 40         N/A         Inter. Cal.         N/A         Inter. Cal.         Stright			GE INSPE	CTION		er:		AMER	Initial Cal.	0700	4/6/2008					Sound Path		
Data       Data       Data       Store       Data	Moriei:				Size:	0.25"			Inter. Cal.	0740 4/6/2008				· · · · · · · · · · · · · · · · · · ·	5.0	.457"		
Mill Carly Parket       Substring       Fulset       Substring       Fulset       Substring         Rep, Rate:       AUTO HIGH       Freq:       5.0 MHZ       Mode       SHEAR       Couplant         Rep, Rate:       AUTO HIGH       Freq:       5.0 MHZ       Mode       SHEAR       Couplant         Rep, Rate:       AUTO HIGH       Freq:       5.0 MHZ       Mode       SHEAR       Couplant         Voltage:       450       Other:       PIW-100       Standard       Standard       Other       Call Balch:       07143,       Circumferential Orientated Search Unit         Voltage:       450       Other:       PIW-100       Search Unit Cable       Mig::       SONOTRACE 40       Signal       Sweep       Sound Pa         10       Screen DIV:       90       in. of       Sound Path       Type:       BNC to MCD: RG-174       Exam Batch:       07143       N/A       Internet and the pitting of t	Delay:	3.7606	Range:	0.900"	Freq.:	5.0 MHZ	Style:	COMP-G		N/A						-		
Damping:       Sub Orlins:       Rege.       0%       Mode:       SHEAR         Rep. Rate:       AUTO HIGH       Freq:       5.0 MHZ       Measured Angle:       45       Couplant       Circumferential Orientated Search Unit         No       Mode:       FULLWAVE       Wedge Style:       MSWOC       Cal. Batch:       07143,       Circumferential Orientated Search Unit         Voltage:       450       Other:       P/W-100       Search Unit Cable       Mfg::       SONOTRACE 40       Reflector       Amplitude %       Sweep       Sound Pa         10       Screen Div. :         Galibration Block       Sound Path       Type:       BNC to MCD: RG-174       Exam Batch:       07143       N/A       N/A        N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A         N/A        N/A        N/A	M'ti Cal/Vel:	0.1224	Pulser:	SQUARE	Exam Angle	э: <b>45</b>	# of Ele	ments: Single										
Filter:       N/A       Mode:       FULLWAVE       Wedge Style:       MSW0C       Cal. Batch:       07143,       Circumferential Orientated Search Unit         Voltage:       450       Other:       P/W-100       Search Unit Cable       Mg::       SONOTRACE 40       Reflector       Amplitude %       Division       Sound Pa         10       Screen Div. =       .90       in. of       Sound Path       Type:       BNC to MCD: RG-174       Exam Batch:       07143       N/A       Image: N/A       Division       Sound Pa         10       Screen Div. =       .90       in. of       Sound Path       Type:       BNC to MCD: RG-174       Exam Batch:       07143       N/A       Image: N/A	Damping:	500 OHMS	Reject:	0%	Mode:		SHEAR		Final Cal.	1315	4/6/2008							
Voltage:       450       Other:       P/W-100       Search Unit Cable       Type:       SONOTRACE 40       Calibration       Signal       Sweep       Double of this information         10       Screen Div. =       .90       in. of       Sound Path       Type:       BNC to MCD: RG-174       Exam Batch:       07143       N/A       Image: Component of this information       N/A       Image: Component of this information       N/A       Image: Component of this information       Signal       Sweep       Sound Path         Linearity Report No.:       L-08-003       Length:       6"       No. Conn.:       0       Type:       SONOTRACE 40       N/A       Image: Component of this information       Signal       Signal <td< td=""><td>Rep. Rate:</td><td>AUTO HIGH</td><td>Freq.:</td><td>5.0 MHZ</td><td>Measured A</td><td>Angle:</td><td>45</td><td>j</td><td>i</td><td>Couplan</td><td>nt</td><td></td><td></td><td></td><td></td><td><u> </u></td></td<>	Rep. Rate:	AUTO HIGH	Freq.:	5.0 MHZ	Measured A	Angle:	45	j	i	Couplan	nt					<u> </u>		
Ax. Gain (dB):       20.0       Circ. Gain (dB):       20.0       Search Unit Cable       Mg:       SONOTECH INC.       Reflector       Amplitude %       Division       Sound Path         10       Screen Div. =       .90       in. of       Sound Path       Type:       BNC to MCD: RG-174       Exam Batoh:       07143       N/A       Image: Comparison of the comparison	Filter:				Wedge Sty	le:	MSWQC						Circumfe	erential Orient	ated Search	Unit		
Ax. Gain (dB):       20.0       Circ. Gain (dB):       20.0       Search Unit Cable       Mig.:       SONOTECH INC.       Melledul       Antipilitude 70       Division         10       Screen Div. =       .90       in. of       Sound Path       Type:       BNC to MCD: RG-174       Exam Batch:       07143       N/A       Image: SonoTECH INC.       Image: SonoTECH INC.	Voltage:		,													Sound Path		
Solven Div. 2       In. di       Construction       Exam Batch:       07143         Linearity Report No:       Length:       6"       No. Conn:       0       Type:       SONOTRACE 40         Calibration Block       Scan Coverage       Mig.:       SONOTECH INC.       Reference Block         Cal. Block No::       WPS-73       Upstream       Downstream       Scan dB:       26.0         Thickness:       0.300"       Dia:       3"       CW Ø       CCW Ø       Scan dB:       32.0         Cal. Block No::       WPS-73       Upstream       Downstream       Scan dB:       32.0       Reference Block       Reference/Simulator Block         Cal. Block No::       0.300"       Dia:       3"       CW Ø       CCW Ø       Scan dB:       32.0       Reference Block         Cal. Blick Temp:       72       Temp. Tool:       257125       Exam Standace:       Flat Topped       Type:       ROMPAS       20.0       .3" SDH       40%       5.0       .459"         Cornp. Temp:       60       Temp. Tool:       257125       Surface Condition:       Smooth       Supplemented weld.       Comments:       50% code coverage achieved due to single sided access.         Deteent of Coverage Obtained > 90%:       No       Reviewed Pre	Ax. Gain (dB):	20.0	Circ. Gai	` `		Search	Unit Cable		Mfg.:	SONOTE	CH INC.	<u> </u>		Amplitude %	Division			
Linearity Heport No:       L-08-003       Ippe:       SONOTRACE 40         Calibration Block       Scan Coverage       Mfg:       SONOTRACE 40         Cal. Block No::       WPS-73       Upstream       Downstream       Scan dB:       26.0       Reference Block         Cal. Block No::       WPS-73       Upstream       Downstream       Scan dB:       26.0       Reference Block         Cal. Block No::       WPS-73       Upstream       Downstream       Scan dB:       22.0       Reference/Simulator Block         Cal. Jik, Temp:       72       Temp. Tool:       257125       Exam Surface:       Flat Topped       Type:       ROMPAS       Commonstream       Signal         Cornp. Temp:       60       Temp. Tool:       257125       Surface Condition:       Smooth       RoMPAS       So% code coverage achieved due to single sided access. Due to weld crown width, 45 deg circumferencial scans supplemented by 60 deg skew scans.         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       NA       Signature       Date         Fixaminer       Level II       Signature       Date       Reviewer       Signature       Signature       Date         Philock, Norman E.       N/A       Signature       Date       Signature       Date	10 Screen	Div. = .90	in. of	Sound Path	Туре:	BNC	to MCD: R	G-174	Exam Batch	n:	07143	N	<u> </u>		· · · · ·			
Calibration Block         Calibration Block         Reference Block         Reference Block         Cal. Block No:       Reference Block         Thickness:       O.300"       Dia:       3"       COW I COW I Scan dB: 32.0       Reference Block         Cal. Block No:       LMT-048       Reference Block         Comp. Tool:       257125       Surface Condition:       Smooth         Resolution Block       Comments: 50% code coverage achieved due to single sided access.	Linearity Repor	t No.:	L-	08-003	Length:		No. Conn.:	0	Type:	SONOTRACE 40								
Cal. Block No.:       WPS-73       Upstream       Downstream       Scan dB:       26.0       Reference Block         Thickness:       0.300"       Dia.:       3"       CW @       CCW @       Scan dB:       32.0       Serial No.:       LMT-048       Reference/Simulator Block         Cai. 3lk. Temp.:       72       Temp. Tool:       257125       Exam Surface:       Flat Topped       Type:       ROMPAS       20.0       .3" SDH       40%       5.0       .459"         Comp. Temp.:       60       Temp. Tool:       257125       Surface Condition:       Smooth       Type:       ROMPAS       20.0       .3" SDH       40%       5.0       .459"         Recordable Indication(s):       Yes       No       (If Yes, Ref. Attached Ultrasonic Indication Report.)       Comments:       50% code coverage achieved due to single sided access. Due to weld crown width, 45 deg circumferencial scans supplemented by 60 deg skew scans.         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       Signature       Date       Signature       Signature       Signature       Signature       Date         Pollock, Norman E.       N/A       Signature       Date       Site Reviewer       Signature       Signature       Signature       Date		Calibr	ation Block			Scan	Coverage		Mfg.:	SONOTE	CH INC.					<u> </u>		
Thickness:       0.300"       Dia.:       3"       CW V       CCW V       Scan dB:       32.0       Mitted W       Mitted W       Signal       Sweep       Dound Pa         Cai: 3lk. Temp.:       72       Temp. Tool:       257125       Exam Surface:       Flat Topped       Type:       ROMPAS       20.0       3" SDH       40%       5.0       .459"         Comp. Temp.:       60       Temp. Tool:       257125       Surface Condition:       Smooth       Type:       ROMPAS       20.0       .3" SDH       40%       5.0       .459"         Recordable Indication(s):       Yes       No V       (If Yes, Ref. Attached Ultrasonic Indication Report.)       Comments:       50% code coverage achieved due to single sided access. Due to weld crown width, 45 deg circumferencial scans supplemented by 60 deg skew scans.         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       Signature       Date       Signature       Signature       Date         Pollock, Norman E.       Machine Life       Signature       Date       Reviewer       Signature       Signature       Signature       Date         Kaminer       Level       N/A       Signature       Date       Site Reviewer       Signature       Signature       Date	Cal. Block No.:				Upstream [	Downs	tream 🖌 So	an dB: <b>26.0</b>	Pof	oronoo F	Block	Reference/Simulator Block						
Cai. 3lk. Temp.:       72       Temp. Tool:       257125       Exam Surface:       Flat Topped       Type:       ROMPAS       20.0       .3" SDH       40%       5.0       .459"         Comp. Temp.:       60       Temp. Tool:       257125       Surface Condition:       Smooth       20.0       .3" SDH       40%       5.0       .459"         Recordable Indication(s):       Yes       No       (If Yes, Ref. Attached Ultrasonic Indication Report.)       Comments:       50% code coverage achieved due to single sided access. Due to weld crown width, 45 deg circumferencial scans supplemented by 60 deg skew scans.         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       Signature       Date       Signature       Date         Pollock, Norman E.       N/A       Signature       Date       Site Reviewe       Signature       Signature       Date         Kaminer       Level       N/A       Signature       Date       Site Review       Signature       Date         Kaminer       Level       N/A       Signature       Date       Site Review       Signature       Date         Kaminer       Level       N/A       Signature       Date       Site Review       Signature       Date       Signature       Date	Thickness:	0.300"	Dia.:	3"	cw [		ccw 🖌 sa	an dB: 32.0						· · ·		Sound Path		
Comp. Temp.:       60       Temp. Tool:       257125       Surface Condition:       Smooth         Recordable Indication(s):       Yes       No       (If Yes, Ref. Attached Ultrasonic Indication Report.)       Image: Comp. Temp.       50% code coverage achieved due to single sided access.         Results:       Accept       Reject       Info       0 deg lamination scan performed. Risk informed weld.       Comments:       50% code coverage achieved due to single sided access.         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       Signature       Date         Fxaminer       Level II       Signature       Date       Reviewer       Signature       Signature         Fxaminer       Level N/A       Signature       Date       Site Review       Signature       Date         N/A       Signature       Date       NIA       Signature       Date       Signature       Date         Pollock, Norman E.       N/A       Signature       Date       Site Review       Signature       Signature       Date         V/A       Signature       Date       Alterview       Signature       Date       Signature       Date         Ph.NI.P E. BuKes       N/A       Signature       Date       ANII Review       Signature	Cai. Blk. Temp.	.: <b>72</b> Ter	mp. Tool:	257125	Exam Surfa	ice:	Flat Top	pped						· · · · · · · · · · · · · · · · · · ·				
Results:       Accept       Reject       Info       0 deg lamination scan performed. Risk informed weld.       Comments:       50% code coverage achieved due to single sided access. Due to weld crown width, 45 deg circumferencial scans supplemented by 60 deg skew scans.         Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       N/A       Signature       Date       Reviewer       Signature       Date         Examiner       Level       II       Signature       Date       Reviewer       Signature       Date         Pollock, Norman E.       N/A       Signature       Date       Site Reviewer       Signature       Date         K/A       Signature       Date       Site Reviewer       Signature       Date       Signature       Date         K/A       Signature       Date       Site Reviewer       Signature       Date       Signature       Date         K/A       Signature       Date       Site Reviewer       Signature       Date       Signature       Date         K/A       Signature       Date       ANII Review       Signature       Signature       Date	Comp. Temp.:	<b>60</b> Ter	mp. Tool:	257125	Surface Co	ndition:	Sme	ooth		1101		20.0	.3" SDF	1 40%	5.0	.459"		
Percent Of Coverage Obtained > 90%:     No     Reviewed Previous Data:     N/A       Examiner     Level II     Signature     Date     Reviewer       Pollock, Norman E.     N/A     Signature     Date     Signature     Date       Fxaminer     Level N/A     Signature     Date     Signature     Signature     Date       N/A     Cither     Level N/A     Signature     Date     ANII Review     Signature     Date	Recordable In	dication(s):	Yes	□ No 🗹	(If Yes, Ref. A	- Attached Ul	trasonic Indic	ation Report.)				<u> </u>						
Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       Supplemented by 60 deg skew scans.         Examiner       Level II       Signature       Date       Reviewer       Signature       Date         Pollock, Norman E.       N/A       Signature       Date       Signature       Date       Signature       Date         Fxaminer       Level       N/A       Signature       Date       Site Reviewer       Signature       Date         N/A       Signature       Date       Site Review       Ph.N.P E. BuKes       Signature       Date         C'ther       Level       N/A       Signature       Date       ANII Review       Signature       Date	Results:	Accept 🖌	] Reje	ect	Info 🗌 0 deg	laminatio	n scan perfo	ormed. Risk in	formed weld	<b>i</b> . Co								
Pollock, Norman E.     NommPolluth     4/6/2008     Jeremy T.mm     Signature     Signature       Examiner     Level N/A     Signature     Date     Site Review     Signature     Date       N/A     Citter     Level N/A     Signature     Date     ANII Review     Signature     Date	Percent Of Cov	verage Obtair	ned > 90%:	No	Reviewed	Previous Da	ata:	N/A								ial scans		
Pollock, Norman E.     NonmPollith     4/6/2008     Jeremy T.mm     ftm     5/5/08       Examiner     Level N/A     Signature     Date     Site Review     Signature     Date       N/A     Ph.N.P E. Bukes     Ph.N.P E. Bukes     Ph.N.P E. Bukes     Signature     Date	Examiner	Level	11		Signature			Date Revie	wer				Signa	tyre		Date		
Examiner     Level     N/A     Signature     Date     Site Review     Signature     Date       N/A     N/A     Ph.N.P.EBukes     Ph.U.P.EBukes     Ph.U.P.EBukes     Ph.U.P.EBukes     Signature     Date	Pollock, Norm	nan E.		nom	allel.		4/6	12008 Jer	emy T.	nm			Ha	<u> </u>	515	708		
Cther Level N/A Signature Date ANII Review Signature Date	Examiner	Level	N/A		Signature	-		Date Site F	leview			KIAA	Signa	~ /		Date		
	N/A									ikes		Tully			May 5	3008		
NA James W. Niemery) ames UN comercy 12MAY08		Level	N/A		Signature							$\overline{}$	Signa	iture	0	Date		
	N/A							74	mesw.N	iemen	$\underline{}$	-) am	4U7	( comery	12MA	408		

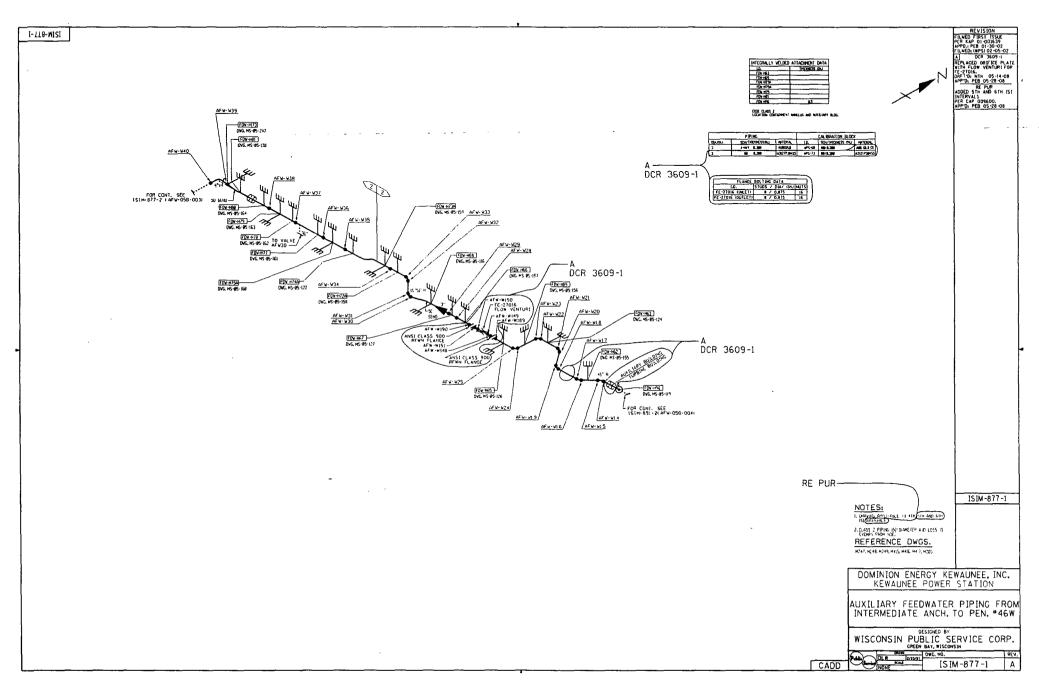


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<b>and B</b> orni	nion	Site/Unit:	KPS	/	1	_		Procedure:	ER-AA	-NDE-UT-802	Rev. 0		Outage	No.:	K1R29
	Sumr	mary No.:	K1	I.C5.21.110			Proce	edure Rev.:		0			Report	No.:	IT-08-151
	Wo	orkscope:		PSI			Work	Order No.:		07-004170		_	P	age: 1	of 1
Code:	ASI	ME Sect. XI	98 Ed/00 Add		Cat.	/Item:	C-F-1	/C5.21		Location:		AU	XILIARY BUI	DING	
Drawing No.:		ISIN	-877-1/D1-D02		-	Descriptio	on: <b>3" FLA</b>	NGE TO PIPE	WELD		· · · · · · ·		· · · <u>_ · · _ · · _</u> · _ · _ · _ · _ · _ · _ ·		
System ID:	AFW - AUX	ILIARY FEE	DWATER PIPIN	IG FROM INT	ERMEDIAT	E ANCH. TO	PEN. #46	N .		· · · · · · · · · · · · · · · · · · ·					/
Component ID:	ISIM-877-1/	/AFW-W148	<u> </u>					7	Size	/Length: 3	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single side	ed exam due	to configuratio	n		<u></u>			<b>-</b>	Start	Time:	0940	Finis	h Time:	0949
	Instrume	ent Settings				earch Unit									
Serial No.:	instrume	01R5N	N	Serial N		SC013	0	Cal. Check	Time	Date		Axia	Orientated S	earch Unit	
Manufacturer:		GE INSPEC		Manufac		KRAUTK		Initial Ca		4/6/2008	Calib Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	SW	Size:	0.25"	Shape:	ROUND	) Inter. Ca	I. <b>0940</b>	4/6/2008	ID N		80%	5.0	.611"
Delay:	5.2884	Range:	1.22"	Freq.:	5.0 MHZ	Style:	COMP-C								
M'tl Cal/Vel:	.1224	Pulser:	Square	Exam Ar	ngle: 6	<b>0</b> # of El	ements: Si			4/0/0000					
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR		Final Ca		· · · · · ·					
Rep. Rate:	Auto High	Freq.:	5 MHZ		ed Angle:		i9		Coupla		<u> </u>				<u> </u>
Filter:	N/A	_ Mode: Other:	Fullwave P/W-100	Wedge \$	Style:	MSWO	20	Cal. Batc		07143	ļ		rential Orienta	ated Search	n Unit
Voltage: Ax. Gain (dB):	36.0	Circ. Gain		<u> </u>	Soot	ch Unit Cable	_	Type:		RACE 40 ECH INC.	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
10 Screen D		- in. of	Sound Path	Type:		NC to MCD: F		Mfg.:			N				
			, <i>"</i> , ", .	Length:	6"	No. Conn.:	0	Exam Ba		07143					-
Linearity Report			-003	Ŭ	Sca	n Coverage		Type: Mfg.:		RACE 40 ECH INC.					
	Calibra	tion Block	<b>.</b>	Upstrear		-	ScandB: N		Conorn			L			1
Cal. Block No.:	0.300"	WPS-7 Dia.:	3"	·	~ <b>∨</b>	_	Scan dB: 4	K	eference	Block	Gain	Ref	erence/Simul		1
Thickness: Cal. Blk. Temp.:			257125	Exam Si	_	Flat To		Serial No		MT-048	dB	Reflector	Signal Amplitude %	Sweep 6 Division	Sound Path
Comp. Temp.:		p. Tool: p. Tool:	257125		Condition;	· · · · · · · · · · · · · · · · · · ·	nooth	Туре:	RO	MPAS	29.0	.3" SDH	56%	5.3	.647"
Recordable Ind	·	Yes [				Ultrasonic Ind		uort)							
		•					iou lon nop		0			<u> </u>			
Results:	Accept 🖌	Rejec		Info 🗌					C				an in the circ d when skewe		
Percent Of Cove	erage Obtaine	d > 90%:	No	Reviewe	ed Previous	Data:	N/A	_		inf	ormed we	eld.			
Examiner	Level	11	<u>^</u>	Signature		· · · · · · · · · · · ·	Date F	leviewer				Signat			Date
Pollock, Norma	an E.		ycond	n Pollil		4/	6/2008	Jereny 7	inn		Ch	A	H.	4	5/5/08
Examiner	Level	N/A		Signature				ite Review			/	Signat		/	Date
N/A			<u> </u>					<u>hillip E.E</u>	Su Ke S		Th	llip C	13upes	May.	52008
Other N/A	Level <b>j</b>	N/A		Signature			Date A	NII Review		$\sim$	<b>`</b>	Signat		0	Date
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- <b>S</b> om	inion	Site/Unit:	KPS	/	1		Pro	cedure:	ER-AA-I	NDE-UT-802	Rev. 0		Outage	No.:	K1R29
·	Sum	mary No.:	K1.	C5.21.110		-	Procedu	e Rev.:		0		—	Report	No.: U	T-08-152
	Wo	orkscope:		PSI		_	Work Ord	ler No.:		07-004170		_	Pa	age: 1	of 1
Code:	ASI	/IE Sect. XI	98 Ed/00 Add		Cat./It	tem:	C-F-1/C5	.21		Location:		AU)		DING	
Drawing No.:		ISI	M-877-1/D1-D02			Descripti	on: 3" FLANG	E TO PIPE W	ÆLD						
System ID:	AFW - AUX	ILIARY FE	EDWATER PIPING	FROM INTE	 RMEDIATE	ANCH. TO	PEN. #46W								
Component ID:	ISIM-877-1/	/AFW-W148					<u> </u>		Size/L	_ength:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single side	d exam du	e to configuration	 		~ ~	· · · · · · · · · · · · · · · · · · ·	<u>.</u>		Start	Time:	1100	Finis	h Time:	1109
	Instrume	ent Settings	······································		Sea	urch Unit		Cal.	T T			Assial	Orientated 0		
Serial No.:		01R5N	w	Serial No.:		SC024	0	Checks	Time	Date			Orientated S		· · · · -
Manufacturer:		GE INSPE	CTION	Manufactu	rer:	KRAUTK	RAMER	Initial Cal.	0720	4/6/2008	Calibr Refle		Signal mplitude %	Sweep Division	Sound Path
Model <sup>.</sup>		USN 60	sw	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1100	4/6/2008	ID No	otch	<b>80</b> %	5.0	.952"
Delay:	7.1497	Range:	1.9"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1224	Pulser:	Square	Exam Angl	e: 70	# of E	ements: Single	Final Cal.	N/A 1335	4/6/2008				<u></u>	<u> </u>
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR			44					<u> </u>	ļ
Rep. Rate:	Auto High	Freq.:	5.0 MHZ	Measured ,			70	-	Couplan						<u> </u>
Filter:	N/A 450	- <sup>Mode:</sup> – Other:	Fullwave P/W-100	Wedge Sty	/le:	MSW	20	Cal. Batch:		07143		····· 1	ential Orienta		
Voltage: Ax. Gain (dB):	46.0	Circ. Gain		_	Search	n Unit Cable	<b>_</b>	· · · · · · · · · · · · · · · · · · ·	SONOTF		Calibr Refle		Signal mplitude %	Sweep Division	Sound Path
		in, of	Sound Path	— Туре:		to MCD: I		·			N			<u> </u>	+
10 Screen [			<u></u>	Length:		No. Conn.:		Exam Batch		07143					
Linearity Repor	t No.:	L-0	8-003			Coverage			SONOTE						
	Calibra	tion Block		1 <b>1</b>		•		Mfg.:	SONOTE						μ
Cal. Block No.:		WPS-7		_ Upstream [			Scan dB: 52.0	- Ref	erence E	Block		Refe	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	_ CW [	_}		Scan dB: N/A	Serial No.:	LI	MT-048	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp		p. Tool:	257125	Exam Surfa		Flat T		_ Туре:	ROM	IPAS	46.0	.3" SDH	95%	5.3	1.001"
Comp. Temp.:	<u>60</u> Tem	p. Tool:	257125	Surface Co	-		nooth								
Recordable In	dication(s):	Yes	No 🖌	(If Yes, Ref.	Attached U	Itrasonic Ind	lication Report.)	I							
Results:	Accept 🖌	Rejec	x 📋	info 📋					Co				tal 70 deg exa weld crown o		
Percent Of Cov	verage Obtaine	d > 90%:	<u>No</u>	Reviewed	Previous D	ata:	N/A				ormed we	-			
Examiner	Level	1		Signature	··		Date Revie	wer				Signati	15 Cert		Date
Pollock, Norm	nan E.		none	n Poll	K	4.	<sup>6/2008</sup> J	eremy 1	Timm		Chris	Eta	2	5	15708
Examiner	Level	N/A		Signature				Review			511	Signatu	1		Date
N/A							<u> </u>	<u>.11.P E. I</u>	Buke	<u>s</u>	1 hill	p.CB		Mary 5	
Other	Level	N/A		Signature				Review		$\frown$	$\mathbf{b}$	Signatu	•	U	Date
Než						·····		amesw.A	Jiemera		/amer	u N a	mery	IZMAYU	8

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<b>W</b> oomi	inšori	Site/Unit:	KPS	/ 1		Proce	edure:	ER-AA-	-NDE-UT-802	. Rev. 0		Outage N	.vo.:	K1R29	
	Sum	mary No.:	К1.	.C5.21.110		Procedure	Rev.:		0		_	Report N	No.: L	JT-08-163	
	W	orkscope:		PSI		Work Orde	ər No.:		07-004170		_	Pa	age: 1	of	1
Code:	AS	ME Sect. X	l 98 Ed/00 Add		Cat./Item:	C-F-1/C5.2	21	_	Location:		AU	IXILIARY BUIL	DING		·
Drawing No.:		ISI	IM-877-1/D1-D02		Descript	tion: 3" FLANGE	TO PIPE W	ELD	<u></u>						
System ID:	AFW - AUX	(ILIARY FE	EDWATER PIPIN	G FROM INTERME	EDIATE ANCH. T(	O PEN. #46W									
Component ID:	ISIM-877-1	/AFW-W148	8				<u></u>	Size/	Length:	3"/10.99"	Hanna	Thickness/Dia	ameter:	0.300"/3,5	H
Limitations:	Single side	ed exam du	ue to configuration	n					Star	rt Time:	1220	Finisł	h Time:	1229	
	Instrum	ent Settings	s		Search Unit		Cal.	Time	Date	1	Axia	al Orientated Se	earch Unit		
Serial No.:		01R5N		Serial No.:	SB002	28	Checks			Calibr		Signal	Sweep	- <u> </u>	
Manutacturer:		GE INSPE		Manufacturer:	KRAUTK	(RAMER	Initial Cal.	0730	4/6/2008	Refle		Amplitude %	Division	Sound P	'atn
Model:		USN 60		Size:0.2	· ·		Inter. Cal. Inter. Cal.	1220 N/A	4/6/2008	ID No	otch	80%	5.0	.870"	J
Delay:	7.0113	_ Range: _	<u> </u>	Freq.:2.25 I			Inter. Cal.	N/A		1		<u> </u>		- <b> </b>	
M'tl Cal/Vel: Damping:	.1228 500 ohms	_ Pulser: _ Reject:	Square 0%	Exam Angle: Mode:	# of E 	Elements: Single	Final Cal.	1345	4/6/2008		+			<b></b>	
· · ·	Auto High	- Freq.:	2.25 MHZ	Measured Angle		69	· · · · · · · · · · · · · · · · · · ·	Couplar	nt	' <b> </b>		+		+	
Filter:	N/A	– Mode: –	Fullwave	Wedge Style:	MSW		Cal. Batch:		07143		Circumfe	erential Orienta	ated Search	_L n Unit	
Voltage:	450	Other:	P/W-220		······				RACE 40	- Calibr	ration	Signal	Sweep	<u> </u>	
Ax. Gain (dB):	43.0	Circ. Gain	n (dB): N/A	/	Search Unit Cabl	le	Mfg.:	SONOTI	ECH INC.	Refle	ector /	Amplitude %	Division	Sound P	'ath
10 Screen D	Div. = 1.77	in. of	Sound Path	Туре:	BNC to MCD:	RG-174	Exam Batch	h:	07143	N/.	<u>/A</u>	· · · ·		<u> </u>	
Linearity Report	t No.:	L-(	08-003	Length: 6'	6 No. Conn.:	.:0			RACE 40	·		+		+	
	Calibra	ation Block		· .	Scan Coverage	3	Mfg.: S	SONOTE	ECH INC.	_			<u></u>		
Cal. Block No.:		WPS-	73	Upstream 🔲	Downstream 🖌	Scan dB: <b>49.0</b>	Ref	ference E	Block		Ref	ference/Simula	ator Block		
Thickness:	0.300"	Dia.:	3"	cw 🗌	ccw	Scan dB: N/A	Serial No.:		MT-048	Gain	<b></b>	Signal	Sweep	Sound P	'ath
Cal. Blk. Temp.:	: <u>72</u> Tem	np. Tool:	257125	Exam Surface:	Flat T	Topped	Type:		MPAS	- dB 37.0	Reflector .3" SDH		6 Division 5.0	.891"	
Comp. Temp.:	<b>60</b> Tem	ıр. Tool:	257125	Surface Condition	ion: <u> </u>	Smooth							1	031	
Recordable Ind	dication(s):	Yes	N₀ 🖌	(If Yes, Ref. Attac	ached Ultrasonic Inc	dication Report.)							1	1	·····
Results:	Accept 🖌	Reje	ect	Info				Cr				ntal best effort		am for the	, ,
Percent Of Cove	erage Obtaine	əd > 90%:	No	Reviewed Previ	vious Data:	N/A			fa	r side of th	ne weld. R	Risk informed v	veld.		
Examiner	Level	11		Signature		Date Review	wer				Signat	ture		D	ate
Pollock, Norma	ian E.		Non	a faller	1	4/6/2008 Jere	my Ti	nn		6	l. E	K	51	15/08	
Examiner	Level	N/A		Signature		Date Site Re	leview			0/1	Signat	lure		Da	ate
N/A	<u></u>		<u> </u>				IPE. B	ukes		<u> Killy</u>	<u>eCB</u>	Bukes	May	5,2008	<u>}</u>
Other	Level	N/A		Signature		Date ANII R				$\overline{}$	Signat	ule	0		ate
N/A						الم ا	ames W.N	lemen	1 <u> </u>	) am	ul N le	emery	121195	108	1





### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-21

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W151 Preservice Examination

### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

### 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.21

# 4. Impracticality of Compliance:

50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W151 was inaccessible due to Pipe to Flange Configuration restricting Ultrasonic Examination.

### 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W151 would require modification of the original design of the Auxiliary Feedwater Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W151 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Liquid Penetrant Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements.

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-21

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

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stille Sound	ánion O	Site/Unit:	KPS	/ 1	<u></u>		edure:	ER-AA-	NDE-UT-802 I	Hev. 0	-	Outage		K1R29
		nmary No.: - /orkscope:	K	1.C5.21.113 		Procedure Work Orde			0		-	Report	<u> </u>	IT-08-066
		orkscope.					er NO		07-004170				age: <u>1</u>	of <u>1</u>
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat./Item:	C-F-1/C5.	21	<u> </u>	Location:		AUX	ILIARY BUI	LDING	
Drawing No.:	. <u></u>	ISI	M-877-1/D1-D02		Descriptio	on: <b>3" PIPE TO</b>	FLANGE W	ELD						
System ID:	AFW - AU	XILIARY FE	EDWATER PIPIN	NG FROM INTERMED	HATE ANCH. TO	PEN. #46W								
Component ID:	ISIM-877-	1/AFW-W151	1					Size/I	Length: 3	8"/10.99"		Thickness/D	iameter:	0.300"/3.5"
Limitations:	Access lir	nited to ups	tream side of w	eld due to flange con	figuration.				Start	Time:	0825	Finis	sh Time:	0839
	Instrum	ent Settings	S		Search Unit		Cal.				۸vial	Orientated S	Search Unit	
Serial No.:		01R5N	iw	Serial No.:	SC022	4	Checks	Time	Date	Calibra		Signal	Sweep	
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRAUTKI	RAMER	Initial Cal.	0700	4/6/2008	Refle		mplitude %	Division	Sound Pa
Model:		USN 60	• •	Size: 0.25	Shape:	ROUND	Inter. Cal.	0825	4/6/2008	ID NO	тсн	80%	5.0	.457"
Delay:	3.7606	- Range: -	0.900"	Freq.: 5.0 M		COMP-G	Inter. Cal.	N/A N/A						
M'tl Cal/Vel: Damping:	0.1224 500 OHMS	- Pulser: - Reject:	SQUARE 0%	Exam Angle:		ements: Single	Final Cal.	1315	4/6/2008					+
	AUTO HIGH		5.0 MHZ	Mode: Measured Angle	SHEAR			Couplar	nt					+
Filter:	N/A	- Mode: -	FULLWAVE	Wedge Style:	MSW	· · · · ·	Cal. Batch:	•	07143		Circumfer	ential Orient	ated Search	י Unit
Voltage:	450	Other:	P/W-100				Туре:	SONOT	RACE 40	Calibra	ation	Signal	Sweep	
Ax. Gain (dB):	20.0	Circ. Gair	n (dB): 20.0	s	earch Unit Cable	9	Mfg.:	SONOTE	ECH INC.	Refle	ctor A	mplitude %	Division	Sound Pa
10 Screen E	Div. = <b>.90</b>	in. of	Sound Path	Туре:	BNC to MCD: F	RG-174	Exam Batch	h;	07143	N//	Α			
Linearity Report	rt No.:	L-0	8-003	Length: <u>6</u> "	No. Conn.:	0	Туре:	SONOT	RACE 40					
	Calibr	ation Block			Scan Coverage		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:		WPS-	73	Upstream 🖌 🛛	Downstream 🗌 S	Scan dB: <b>26.0</b>	Ref	erence E	Block		Refe	rence/Simu	ator Block	
Thickness:	0.300"	Dia.:	3"	cw 🖌	ccw 🖌 s	Scan dB: <b>32.0</b>	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Pa
Cal. Bik. Temp.	.: <b>72</b> Ter	np. Tool:	257125	Exam Surface:	Flat To	opped	Type:		/PAS	dB 20,0	Reflector .3" SDH	Amplitude 9	6 Division 5.0	.459"
Comp. Temp.:	<u>60</u> Ter	np. Tool:	257125	Surface Conditio	on: <u>Sn</u>	nooth		·····		20.0				
Recordable In	ndication(s):	Yes	No 🗹	(If Yes, Ref. Attach	ned Ultrasonic Ind	ication Report.)								
Results:	Accept 🖌	Reje	ct	Info 🔲 0 deg lami	ination scan per	ormed. Risk in	formed weld	<b>i.</b> Co	omments: 50%					
Percent Of Cov	verage Ohtain	ed > 90%:	No	Reviewed Previo	ous Data:	N/A						th, 45 deg ci eg skew sca		ial scans
									•					
Examiner Posiciek, Norm		11	Da	Signature an Pollu	· 4	Date Revie	-				/ Signatu		C	Dat
TOPOSK, NUMP			nom				eview	IM		L.M	Şignatu	ire the second s	<u>&gt;</u>	15/08 Dat
Examiner		N/A		Signature										
Examiner N/A		N/A		Signature				ukes	á	Ph.	Min F.	Rukon	Mars 5	
	Level	N/A N/A		Signature Signature		Date ANII	ILP E.B Review Tames 1			Phi	<u>llip E 7</u> Signatu	Bukes	May 5	

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<b>A</b> lami		Site/Unit: mary No.:	KPSK1.	/ 1 C5.21.113		Pr	Proce		ER-AA-I	NDE-UT-802 0	2 Rev. 0	_	Outage I Report I		K1R29 T-08-148
	w	orkscope:		PSI		We	ork Orde	r No.:		07-004170			Pa	ige: 1	of <b>1</b>
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat./Item:	C-I	-1/C5.2	1	· · · · · · · · · · · · · · · · · · ·	Location:		AU		DING	
Drawing No.:		ISI	M-877-1/D1-D02		De	scription: 3" P	IPE TO	FLANGE W	ELD	_					
System ID:	AFW - AU)		EDWATER PIPING	G FROM INTERME	DIATE ANC	H. TO PEN. #4	16W	<u></u>				· · · · · · · · · · · · · · · · · · ·			
Component ID:	ISIM-877-1	/AFW-W151	<u> </u>						Size/L	ength:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single side	ed exam du	e to configuration	n	<u> </u>					Sta	rt Time:	1010	Finis	n Time:	1019
and the second	Instrum	ent Settings			Search L	Jnit		Cal.			1	Avia	Originates	eeneb Umit	
Serial No.:		01R5N	w	Serial No.:	s	SC0138		Checks	Time	Date			Orientated S		1
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRA	AUTKRAMER		Initial Cal.	0710	4/6/2008	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	SW	Size:0.3	2 <b>5</b> " Sł	nape: ROU	ND	Inter. Cal.	1010	4/6/2008	ID N	otch	80%	5.0	.611"
Delay:	5.2884	Range:	1.22"	Freq.: 5.0	MHZ S	Style: COM	P-G	Inter. Cal.	N/A						
M'il Cal/Vel:	.1224	Pulser:	Square	Exam Angle:	60	# of Elements:	Single	Inter. Cal. Final Cal.	N/A 1325	4/6/2008	┨┝────				ļ
Damping:	500 ohms	_ Reject: _	0%	Mode:	Sł	IEAR					<u>الا</u>				ļ
Rep. Rate:	Auto High	Freq.:	5 MHZ	Measured Ang	le:	59		(	Couplan	ıt					
Filter:	N/A	_ Mode: _	Fullwave	Wedge Style:		MSWQC		Cal. Batch:		07143	- 🖵	Circumfe	rential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100					· // · · ·		RACE 40	- Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	36.0	- Circ. Gain			Search Unit	t Cable		Mfg.:	SONOTE	CH INC.	- Refle		Amplitude %	Division	
10 Screen D	iv. = <b>1.22</b>	in. of	Sound Path	Туре:		ICD: RG-174		Exam Batch	1:	07143	N/	<u>A</u>	~		
Line_rity Report	No.:	L-0	8-003	Length: <u>6</u>	" No. C	Conn.:	)	Type:	SONOTE	RACE 40	[ <b> </b>				
	Calibra	ation Block			Scan Cove	erage		Mfg.: S	SONOTE	CH INC.		<del>_</del> _			
Cai. Block No.:		WPS-	73	Upstream 🗌	Downstream	Scan dB:	N/A	Refe	erence E	Block		Ref	erence/Simula	tor Block	4
Thickness:	0.300"	Dia.:	3"	cw 🔽	CCW	Scan dB:	48.0	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Path
Cal. Bik. Temp.:	72 Tem	np. Tool:	257125	Exam Surface:		Flat Topped		Type:		IPAS	- dB 29.0	.3" SDH	Amplitude %	5.3	.647"
Comp. Temp.:	<u>60</u> Tem	np. Tool:	257125	Surface Condit	ion:	Smooth					- 25.0	.5 501	50 /8	5.5	.047
Recordable Inc	dication(s):	Yes	□ No 🖌	(If Yes, Ref. Atta	ched Ultrasor	nic Indication F	(eport.)								
Results:	Accept 🖌	Reje	ct	Info 🔲					Co				an in the circu d when skewe		
Percent Of Cove	erage Obtaine	ed > 90%:	No	Reviewed Pre-	vious Data:	N/A					nformed we				
Examiner	Level	11		Signature		Date	Review	ver			1	Signat	ure		Date
Pollock, Norm	an E.		Noma	n Ballic		4/6/2008	Jeic	emy Tin	nM		ha	LA.	8	51	5/08
Examiner	Level	N/A		Signature		Date					1	Signat			Date
N/A								ILP E.B	uKes	) 	Phi	llip C	Bukes	Mar 5	2008
Oihar	Level	N/A		Signature		Date	ANII R	-		$\frown$	` <u> </u>	Signat	ure		Date
N/A							Ja	mes wind	emerg		amos a	Num	vy 1	ZMAY08	

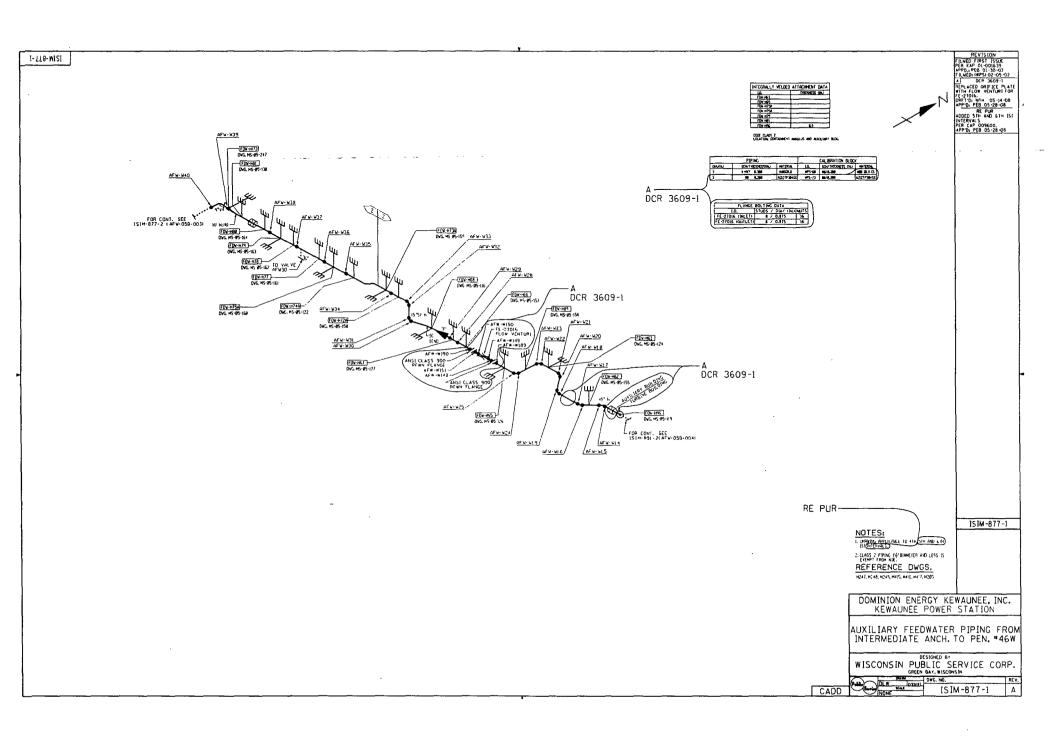


											<b>.</b> .			•	
🔊 Uomi	*****	Site/Unit:	KPS		1	-		edure:	ER-AA-N	IDE-UT-802	Hev. 0	<b></b> -	Outage		K1R29
		nary No.:	K1	.C5.21.113		-	Procedure			0		_	Report		T-08-155
		orkscope:		PSI			Work Orde	er No.:		07-004170	······		P	age: 1	of <u>1</u>
Code:	ASI	ME Sect. XI	98 Ed/00 Add		Cat./	tem:	C-F-1/C5.2	:1	_ '	Location:		AL	IXILIARY BUI	DING	
Drawing No.:		ISI	M-877-1/D1-D02			Descriptio	n: 3" PIPE TO	FLANGE W	ELD						
System ID:	AFW - AUX	ILIARY FE	EDWATER PIPIN	IG FROM INTE	RMEDIATI	E ANCH. TO	PEN. #46W								
Component ID:	ISIM-877-1/	/AFW-W151	1						Size/L	ength:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single side	d exam du	e to configuratio	n						Start	Time:	1130	Finis	h Time:	1139
	Instrume	ent Settings	5		Se	arch Unit		Cal.				۸vie	I Orientated S	earch Unit	
Serial No.:		01R5N	IW	Serial No.	:	SC0240	)	Checks	Time	Date	Calibr		Signal	Sweep	<u> </u>
Manufacturer:		GE INSPE	CTION	Manufactu	arer:	KRAUTKF	RAMER	Initial Cal.	0720	4/6/2008	Refle		Amplitude %	Division	Sound Path
Mcdel:		USN 60	sw	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1130	4/6/2008	ID N	otch	80%	5.0	.952"
Delay:	7.1497	Range:	1.9"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal. Inter. Cal.	N/A N/A						
M'ti Cal/Vel:	.1224	- Pulser: -	Square	Exam Ang	le: <b>70</b>		ements: Single	Final Cal.	1335	4/6/2008					
Damping:	500 ohms Auto High	- Reject: _	0% 5.0 MHZ	Mode:	<u> </u>	SHEAR		L	Couplant					<u> </u>	
Rep. Rate:	N/A	- Freq.: Mode:	Fullwave	Measured Wedge St		7 		Cal. Batch:	•	7143	<u> </u>	Circumfe	rential Orienta		
Voltage:	450	Other:	P/W-100	Wedge St	.yie.	WISWC			SONOTR		Calibi		Signal	Sweep	
Ax. Gain (dB):	46.0	Circ. Gain	n (dB): N/A	<del></del>	Searc	h Unit Cable			SONOTE	CH INC.	Refle		Amplitude %	Division	Sound Path
10 Screen D	iv. = <b>1.9</b>	in. of	Sound Path	Туре:	BN	C to MCD: R	G-174	Exam Batcl	h. (	07143	N/	A			
Linearity Report	No.:	 Լ-0	8-003	Length:	6'	No. Conn.:	0		SONOTR						
,,	·····	tion Block			Scar	Coverage			SONOTE						·~ ·~
Cal. Block No.:		WPS-	73	Upstream	Down:	stream 🗌 S	ican dB: <b>52.0</b>	Bot	erence B	look		I Re	ference/Simul	ator Block	
Thickness:	0.300"	Dia.:	3"	cw		ccw s	ican dB: N/A	Serial No.:		1T-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.:	72 Tem	p. Tool:	257125	Exam Sur	face:	Flat To	pped	Type:	ROM		dB	Reflecto			
Comp. Temp.:	60 Tem	p. Tool:	257125	Surface C	ondition:	Srr	nooth		- HOM		46.0	.3" SDI	1 95%	5.3	1.001"
Recordable Inc	dication(s):	Yes	□ No 🔽	(If Yes, Ref.	Attached L	Iltrasonic Indi	ication Report.)					├ 			
Results:	Accept 🖌	Reje	ct 🗌	Info 🗌					Cor			••	ntal 70 deg ex weld crown o		
Percent Of Cove	erage Obtaine	d > 90%:	No	Reviewed	Previous D	Data:	N/A				formed we	-		onnguiauo	
Examiner	Level			Signature			Date Review	ver				Bigna	ture		Date
Pollock, Norm	an E.		nom	n Polle	n	4/	6/2008 Jere	emy Ti	MM			hat	the -	S	15/08
Examiner	Level	N/A		Signature			Date Site Re	eview			DA	Signa			Date
N/A	<u> </u>	<u></u>						IIIP E.E	Bukes		Thel	lip E.	Bulas	May 5	,2008
Oiner N-A	Level	N/A		Signature			Date ANII R		<b></b>			Signa	ture	V	Date
Det M							<u>م</u> لہ	mesw.N	icmorg		James	iun	cemen	12.11.11	108

					01	Cullbru									
. Somi	inior	Site/Unit:	KPS	/	1	·····	F	Procedure:	ER-AA	NDE-UT-802	Rev. 0		Outage	No.:	K1R29
	Sun	nmary No.:	K1	.C5.21.113			Proce	dure Rev.:		0			Report	No.: U	T-08-162
	v	/orkscope:		PSI			Work	Order No.:		07-004170			٩	age: 1	of <b>1</b>
Code:	As	SME Sect. XI	98 Ed/00 Add		C	at./Item:	C-F-1/	C5.21		Location:		AUX		LDING	
Drawing No.:		ISIN	/-877-1/D1-D02			Descripti	on: 3" PIPE	TO FLANGE W	/ELD						
System ID:	AFW - AU	XILIARY FEI	EDWATER PIPIN	G FROM IN	TERMEDI	ATE ANCH. TO	PEN. #46W	1							
Component ID:	ISIM-877-	1/AFW-W151							Size/	/Length: 3	3"/10.99"		Thickness/D	iameter:	0.300"/3.5"
Limitations:	Single sid	led exam due	e to configuratio	n						Start	Time:	1230	Finis	h Time:	1239
	 Instrum	ent Settings	;			Search Unit		Cal.				Avia	Orientated S	Conch (Init	
Serial No.:		01R5N	w	Serial N	lo.:	SB002	:8	Checks	Time	Date	Calibr	<u> </u>	Signal	Sweep	1
Manufacturer:		GE INSPEC	CTION	Manufa	cturer:	KRAUTK	RAMER	Initial Cal.	0730	4/6/2008	Refle		mplitude %	Division	Sound Path
Model:		USN 60		Size:	0.25"	' '.	ROUND		1230	4/6/2008	ID N	otch	80%	5.0	.870"
Delay:	7.0113	_ Range: _	1.77"	Freq.: _	2.25 MH		COMP-G	Inter Cal	N/A						
M'tl Cal/Vel:	,1228	_ Pulser: _	Square 0%	Exam A	ngle:		lements: Sin	Final Cal.	1345	4/6/2008					
Damping:	500 ohms Auto High	_ Reject: _ Freq.:	2.25 MHZ	Mode:	ed Angle:	SHEAR	69		Coupla	nt					
Filter.	N/A	Mode:	Fullwave	Wedge	•	MSW		Cal. Batch:	•	07143		I Circumfer	ential Orient	ated Search	Unit
Voltage:	450	Other:	P/W-220							RACE 40	Calib		Signal	Sweep	1
Ax. Gain (dB):	43.0	Circ. Gain	(dB): N/A	_	Se	arch Unit Cabl	e	Mfg.:	SONOT	ECH INC.	Refle	1	mplitude %	Division	Sound Path
10 Screen D	Div. = 1.77	in.of	Sound Path	Туре:		BNC to MCD: I	RG-174	Exam Batc	h:	07143	N/	/A			
Linearity Report	t No.:	L-0	8-003	Length:	6'	No. Conn.:	0			RACE 40					
	Calibr	ation Block			S	can Coverage		Mfg.:	SONOT	ECH INC.	<u> </u>				····· 5
Cal. Block No.:		WPS-7	73	Upstrea	im 🗹 Do	wnstream	Scan dB: 4	9.0 Ref	ference	Block		Refe	erence/Simul	ator Block	J
Thickness:	0.300"	Dia.:	3"	C'	w 🔲	ccw 🗌 🥴	Scan dB: N			MT-048	Gain	Definition	Signal	Sweep	Sound Path
Cal. Blk. Temp.	.: <u>72</u> Ter	mp. Tool:	257125	Exam S	urface:	Flat T	opped	— Type:		MPAS	dB 37.0	Reflector .3" SDH	Amplitude %	6 Division 5.0	.891"
Comp. Temp.:	_60_Ter	np. Tool:	257125	Surface	Condition	Sr	nooth								
Recordable in	dication(s):	Yes	No 🖌	(If Yes, R	ef. Attache	d Ultrasonic Inc	dication Repo	ort.)							
Results:	Accept 🖌	] Rejec	x 📋	Info 🔲					C				tal best effor sk informed	-	am for the
Percent Of Cov	/erage Obtair	ned > 90%:	No	Review	ed Previou	ıs Data:	N/A			141	side of u		skinonned	weid.	
Examiner	Level	11		Signature			Date R	eviewer				Signatu	Ire		Date
Policek, Norm	nan E.		Homa	Pall	ru	4	/6/2008	Jereny 7	inm		Ch	) <del>E</del>		5	15/08
Examiner	Level	N/A		Signature				ite Review				Signati			Date
N/A								"LILIPE.B	ukes		The	hac 1		<u> May 5</u> -	
Other N/A	Level	N/A		Signature			Date Al		. 1			Signatu			Date
10.5								James Wil	VIENIA	rq (	_ amo	ule Nie	mere	IZMAY O	5

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		Suppleme	ental Repo	ort			
Dominion					Report No.:	UT-08-	066
					Page:	_1 of	1
Summary No.: KI.C.5.	21.113				1 nl		
	Norman E.		Reviewer:		fortin	Date: 5/	5/0
Examiner: <u>V/A</u>				hillip E. Bukest	Tullip & Buten		15,20
Other: <u>N/A</u>		Level: MA	ANII Review:	James W. Nemers	and university	Date: 12	MAY C
Comments: COV	ERAGE PLOT			se "Hully datase les en mérodis en mérodisentes en la ségurador. E			
Sketch or Photo:							
	Thickness Me 1. 0.298"	asurements					
	2. 0.290" 3. 0.320" 4. 0.423"	AFW-V Weld Crow	W151 n Width 0.7"				
	5. 0.440"	Flo		6			
	Q	(3 (2) (3)	(4)	Flange	9		
	45°	70°					
	Pipe						
				Total Risk Informed Examinat	ion Volume = 0.2336 Sq.	Inches	
Axial Examination Cover	age Upstream 100% 70 Degree			Best Effort Axial Examination Degree	Coverage Downstream 2	5% 70	
Circ Examination Coverag				Circ Examination Coverage D With 45 Degree And Supplem	ental By 60 Degree Skew	v Scans	
With 45 Degree And Supp Clockwise And Counter Cl	emental By 60 Degree Skew Scans ockwise	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	7	Clockwise And Counter Clock	wise		
	Evamina	ation Volume Dimensions	= Height 0.096" Length 11	.25" Width			
		Achieved 50% Risk Inform					



# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-22

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# **INSERVICE INSPECTION IMPRACTICALITY**

### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W152 Preservice Examination

### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.21

# 4. Impracticality of Compliance:

50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W152 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W152 would require modification of the original design of the Auxiliary Feedwater Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited accèss. The following were performed as part of the installation of weld AFW-W152 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Liquid Penetrant Surface examination to satisfy ASME Boiler and Pressure Vessel Code Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements.

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-22

### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

### 8. Precedents: Electric Power Research Institute:

Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

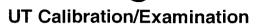
Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

- <b>See</b> som	inion	Site/Unit:	KPS	/ 1			Proc	edure:	ER-AA-	NDE-UT-802 f	Rev. O	,	Outage	No.:	K1R29
	s	Summary No.:	к	1.C5.21.114			Procedure	Rev.:		• 0	-		Report	No.: U	T-08-067
		Workscope:		PSI			Work Orde	ər No.:		07-004170		-	P	age: 1	of <b>1</b>
Code:		ASME Sect.	XI 98 Ed/00 Add		Cat./Ite	m:	C-F-1/C5.2	21		Location:		AU		.DING	
Drawing No.:			5IM-891-1/D1-D02			Description	on: 3" FLANGE	TO PIPE W	ELD						
System ID:	AFW -	FROM AFW F	UMPS 1A/1B AN	D TURB. DRIVEN	 I PUMP DIS	CH. TO P	EN. 46E					•			
Component ID:	ISIM-89	91-1/AFW-W1	52			<u></u>			Size/l	_ength: 3	"/10.99"		Thickness/D	ameter:	0.300"/3.5"
Limitations:	Access	s limited to do	ownstream side o	f weld due to fla	nge configu	iration.				Start	Time:	0840	Finis	h Time:	0854
	Instr	ument Settin	gs		Sear	ch Unit		Cal				A			
Serial No.:		01R5	-	Serial No.:		SC022	4	Cal. Checks	Time	Date		· · · · · ·	Orientated S		· · · · · · · · · · · · · · · · · · ·
Manufacturer:	<u> </u>	GE INSP	ECTION	Manufactur	er:	KRAUTK	· · · · · · · · · · · · · · · · · · ·	Initial Cal.	0700	4/6/2008	Calibr Refle		Signal	Sweep Division	Sound Path
Model:		USN 6	60 SW	Size:	0.25"	Shape:	ROUND	inter. Cal.	0840	4/6/2008	ID NO	тсн	80%	5.0	.457"
Delay:	3.7606	Range:	0.900"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M'tl C.i/Vel:	0.1224	Pulser:	SQUARE	Exam Angle	e: <b>45</b>	# of E	ements: Single	Inter. Cal.	N/A	A/C/2022					
Damping:	500 OHM	<b>S</b> Reject:	0%	Mode:		SHEAR		Final Cal.	1315	4/6/2008					
Rep. Rate:	AUTO HIC	GH Freq.:	5.0 MHZ	Measured A	Angle:		15		Couplan	it					
Filter:	N/A	Mode:	FULLWAVE	Wedge Sty	le:	MSW	ac	Cal. Batch:		07143		Circumfer	ential Orient	ated Search	Unit
Voltage:	450	Other:	P/W-100					· · · · · · · · · · · · · · · · · · ·		RACE 40	Calibr		Signal	Sweep	Sound Path
Ax Bain (dB):	20.0	Circ. Ga		)		Unit Cable		Mfg.:	SONOTE	CH INC.	Refle		Amplitude %	Division	
10 Screen E	Div. =	90 in. of	Sound Path	Туре:		to MCD: I	RG-174	Exam Batch	n:	07143	N/	A			
Linearity Report	t No.:	L	-08-003	Length:	<u>6"</u> N	lo. Conn.:	0	Type:	SONOT	RACE 40			·		
	Cal	ibration Bloc	k	·	Scan C	overage		Mfg.:	SONOTE	CH INC.	-				
Cal. Block No.:		WPS	8-73	Upstream [	Downstr	eam 🗹 🖇	Scan dB: 26.0	Ref	erence E	Block		Ref	erence/Simul	ator Block	
Thickness:	0.300"	Dia.:	3"	cw	<b>7</b> C	cw 🔽 🧯	Scan dB: <b>32.0</b>	Serial No.:		MT-048	Gain	<b>D</b> (1 )	Signal	Sweep	Sound Path
Cal. Blk. Temp.	.: 72 -	Temp. Tool:	257125	Exam Surfa	ace:	Flat T	opped	Type:	. —	IPAS	dB 20.0	Reflector .3" SDH	Amplitude %	6 Division 5.0	.459"
Comp. Temp.:	60	Temp. Tool:	257125	Surface Co	ndition:	Sr	nooth	· //···			20.0	.5 5011	40 /8	3.0	.+33
Recordable In	dication(s	s): Ye	s 🔲 🛛 No 🖌	(If Yes, Ref. A	Attached Ultr	asonic Inc	lication Report.)						1		
Results:	Accept	Reg	ject	Info 🗌 0 deg	lamination	scan per	formed. Risk in	formed weld	I. Co				hieved due t		
Percent Of Cov	verage Obl	tained > 90%:	No	Reviewed	Previous Dat	ia:	N/A						ith, 45 deg ci eg skew sca		iai scans
Examiner	Leve	H 11		Signature			Date Revie	wer			1	Signat	ure		Date
Pollock, Norm	nan E.		non	n Poller	L	4	16/2008 Jer	emy Ti	nm	(	he	Ems		579	5/08
Examiner	Leve	N/A		Signature			Date Site R	eview			1 11	Signati	Jre		Date
N/A							Ph.II	PE. BI	Kes.	Pl	llip	C. Bu	kas 1	Nay 5, 2 MAY08	2008
Othe:	Leve	N/A		Signature			Date ANII F	Review	•	$\sim$		Signat	lite		Date
N/A							コ	amesw.n	Inner	()	amer U	, Niem	ery 1	Z MAYO8	

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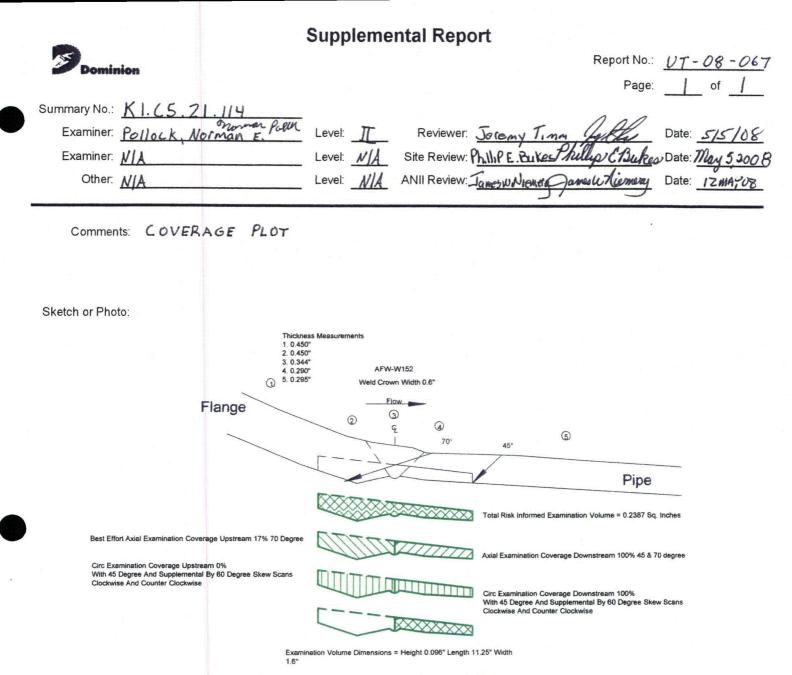
<b>Somi</b> Somi	nion	Site/Unit:	KPS	1	1		Proc	edure:	ER-AA-	NDE-UT-802	Rev. 0		Outage	No.:	K1R29
·	Sum	mary No.:	K1	.C5.21.114			Procedure	Rev.:		0		_	Report	No.: U	Т-08-147
	W	orkscope:		PSI		·	Work Ord	er No.:		07-004170			Pa	age: 1	of <b>1</b>
Code:	ASI	ME Sect. XI	98 Ed/00 Add		Ca	t./Item:	C-F-1/C5.	21		Location:		AUX		DING	
Drawing No.:		ISI	M-891-1/D1-D02			Descriptio	on: 3" FLANGE	TO PIPE W	ELD						
System ID:	AFW - FRC	M AFW PU	IMPS 1A/1B AND	TURB. DRIVE	N PUMP	DISCH. TO PI	EN. 46E								
Component ID:	ISIM-891-1	/AFW-W152	2				· · · · · · · · · · · · · · · · · · ·		Size/I	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single side	ed exam du	e to configuratio	n					_	Star	t Time:	1020	Finis	h Time:	1029
	Instrume	ent Settings	5		S	Search Unit		Cal.			ı,	Avial	Orientated S	earch Unit	
Serial No.:		01R5N	IW	Serial No.:		SC013	8	Checks	Time	Date	Calibr		Signal	Sweep	T
Manufacturer:		GE INSPE	CTION	Manufactu	ırer:	KRAUTKI	RAMER	Initial Cal.	0710	4/6/2008	Refle		mplitude %	Division	Sound Path
Model:		USN 60		Size:	0.25"	Shape:	ROUND	Inter, Cal.	1020	4/6/2008	ID N	otch	80%	5.0	.611"
Delay:	5.2884	Range:	1.22"		5.0 MHZ		COMP-G	Inter. Cal. Inter. Cal.	N/A N/A						ļ
M'ti Cal/Vel:	.1224	- Pulser: -	Square	Exam Ang	le:		ements: Single	Final Cal.	1325	4/6/2008	1				
Damping: Rep. Rate:	500 ohms Auto High	- Reject: - Freq.:	0% 5 MHZ	Mode:	<u> </u>	SHEAR			Couplar	••••••	'┝───				
Filter:	N/A	– <sup>Treq.,</sup> – Mode:	Fullwave	Measured Wedge St		 MSW(	59 DC	Cal. Batch:	•	07143		Circumfer	ential Orienta	ated Search	L
Voltage:	450	Other:	P/W-100		yie.	WI SWY				RACE 40	 Calibr		Signal	Sweep	T
Ax. Gain (dB):	36.0	Circ. Gair	n (dB): N/A		Sea	rch Unit Cable	•		SONOTE		Refle		mplitude %	Division	Sound Path
10 Screen D	)iv. = <b>1.22</b>	– in. of	Sound Path	— Туре:		BNC to MCD: F		Exam Batcl		07143	N/	A			
Linearity Report			8-003	Length:	6"	No. Conn.:	0		n. SONOTE		·				
Enleanty hopon	· · · ·				Sc	- an Coverage		· ·	SONOTE	· · · · · · · · · · · · · · · · · · ·	·				
Oal Block No :	Calibra	tion Block WPS-	72	Upstream		vnstream S	Scan dB: N/A				·				
Cal, Block No.: Thickness:	0.300"	Dia.:	3"	— cw	_		Scan dB: 48.0		ference E		Gain	Rete	rence/Simul Signal	Sweep	
Cal. Blk. Temp.		p. Tool:	257125	Exam Sur	_	Flat Te		Serial No.:		MT-048	dB	Reflector	Amplitude %		Sound Path
Comp. Temp.:	60 Tem	·	257125	Surface C			nooth	Type:	RON	IPAS		.3" SDH	56%	5.3	.647"
Recordable Inc		Yes					ication Report.)						· ·····		
Results:	Accept	Reje	ct []	Info []					Co	omments: P	erformed s	kewed sca	n in the circ	umferencial	direction.
D 10(0	_			—	D	Dute					eld root si formed we		when skewe	ed toward w	eld. Risk
Percent Of Cov	erage Obtaine	ed > 90%;	No	Reviewed	Previous		N/A								
Examiner		11	6	Signature			Date Revie	_	<u>_</u>		$\wedge$	Signatu	re		Date
Pollock, Norm	<u> </u>		nom	a Palk	ĸ	4,		emy 7	MM		has	1 de	8	_ 5/	5/08
Examiner	Level	N/A		Signature			Date Site F		No	-6	R.10	Signatu		1. <del>.</del> .	
N/A Other	Level	N// A		Signature				.PE.B Review	<u> </u>		nunp	Signatu		<u>lay 5,0</u>	Date
N/A	rove!	N/A		Signature				UKES W.N	10/1444		James 1.	Nime		ملاحدي ور	
							<u> </u>	UNCO WIN	IC MEIQ		y units w	1000	7	12 MAYO	<u> </u>



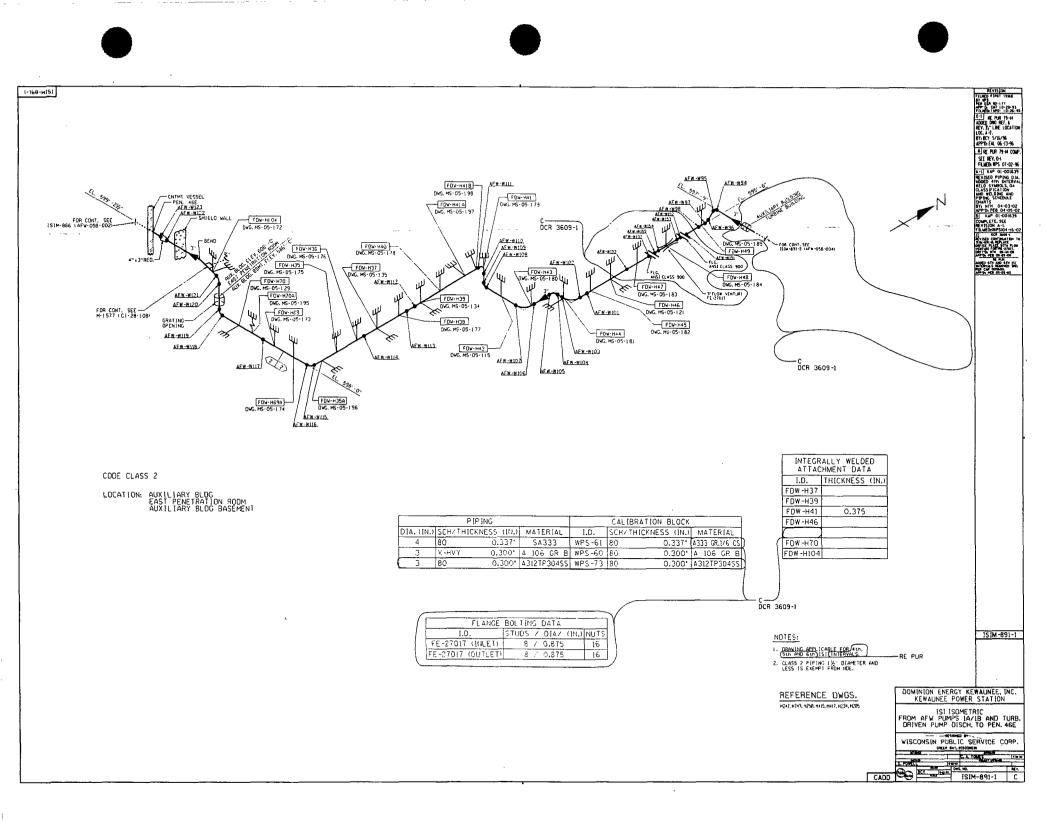


					01	Canbrat		matio							
<b>Som</b> Com	d <b>ni</b> on	Site/Unit:	KPS	1	1		Proc	edure:	ER-AA-	NDE-UT-80	2 Rev. 0	_	Outage I	No.:	K1R29
	Sur	mmary No.:	K1	.C5.21.114			Procedure	• Rev.:		0		_	Report I	No.:	T-08-156
	v	Vorkscope:		PSI			Work Ord	er No.:		07-004170		_	Pa	age: <u>1</u>	of <u>1</u>
Code:	A	SME Sect. X	l 98 Ed/00 Add		Cat	t./Item:	C-F-1/C5.	21		Location:		AUX	ILIARY BUIL	DING	
Drawing No.:		ISI	M-891-1/D1-D02			Descriptio	n: 3" FLANGE	TO PIPE W	ÆLD						
System ID:	AFW - FR	OM AFW PL	IMPS 1A/1B AND	TURB. DRIV	EN PUMP	DISCH. TO PE	N. 46E								
Component ID:	ISIM-891-	1/AFW-W15	2						Size/	Length:	3"/10.99"	-	Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single sid	ded exam du	e to configuratio	n						Sta	rt Time:	1140	Finis	h Time:	1149
	Instrum	nent Setting	s			Search Unit			1		<u> </u>				
Serial No.:		01R5N		Serial No		SC0240	)	Cal. Checks	Time	Date			Orientated S		· · · · · · · · · · · · · · · · · · ·
Manufacturer:		GE INSPE	CTION	Manufac		KRAUTKF		Initial Cal.	0720	4/6/2008	Calibre Refle		Signal nplitude %	Sweep Division	Sound Path
Model:	·····	USN 60	SW	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1140	4/6/2008	ID N	otch	80%	5.0	.952"
Delay:	7.1497	Range:	1.9"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A		-				
M'tl Cal/Vel:	.1224	Pulser: _	Square	Exam An	gle:		ements: Single	Inter. Cal. Final Cal.	N/A 1335	4/6/2008	┪┝━━━━				
Damping:	500 ohms	- <sup>Reject:</sup> -	0%	Mode:		SHEAR		F			י י				
Rep. Rate:	Auto High N/A	Freq.: _ Mode:	5.0 MHZ Fullwave	Measure		7			Couplai			Circumford	ntial Orienta	tod Coarok	
Filter:	450	Other:	P/W-100	Wedge S		MSWC		Cal. Batch: Type:	<b>6</b> 1-1-	07143 RACE 40	- Calibi		Signal		
Ax. Gain (dB):		Circ. Gai	n (dB): N/A		Sea	rch Unit Cable	1	· · · · · · · · · · · · · · · · · · ·		ECH INC.	- Refle		mplitude %	Sweep Division	Sound Path
10 Screen		in. of	Sound Path	Туре:	в	INC to MCD: R	G-174	Exam Batcl		07143	- N/	Ά			
Linearity Report		 L-(	)8-003	Length:	6'	No. Conn.:	0			RACE 40	-				
<b></b>		ration Block			Sci	an Coverage		···		CH INC.	-			- <u></u> ···	
Cal. Block No.:		WPS-	73	Upstream	n 🗌 Dow	vnstream 🖌 S	can dB: 52.0					I Refe	rence/Simula	ator Block	J
Thickness:	0.300"	Dia.:	3"	CV	v 🗌	ccw 🗌 s	can dB: N/A		ierence l	ыоск МТ-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp	D.: <b>72 Te</b>	 mp. Tool:	257125	Exam Su	Irface:	Flat To	opped	Serial No.: Type:		APAS	- <u>dB</u>	i			
Comp. Temp.:	<b>60</b> Te	mp. Tool: 📃	257125	Surface	Condition:	Sm	nooth	- Type:			- 46.0	.3" SDH	95%	5.3	1.001"
Recordable In	ndication(s):	Yes	□ No 🖌	(If Yes, Re	f. Attached	Ultrasonic Indi	cation Report.)							1	
Results:	Accept 🖌	] Reje	ct	Info 📋					C				al 70 deg exa veld crown o		
Percent Of Co	verage Obtair	ned > 90%:	No	Reviewe	d Previous	o Data:	N/A			iı 	nformed w	eld.		•	
Examiner	Level	u		Signature			Date Revie	wer				Signatu	re 1		Date
Pollock, Norn	man E.		Non	a la	UL	4/	6/2008 Je	iemy T	Tinn	1	- Un		6	5[	5/08
Examiner	Level	N/A		Signature			Date Site F				-D / 1/	Signatu			Date
N/A				<u>Oinnt</u>			Phi	ILP E.B	ukes		<u> Thilly</u>	<u>p C DI</u>		May	5,2008
Other N/A	Level	N/A		Signature				Review Mes WINI		$\frown$	)	Signatur Mam			Date
								mes wini	emerg	$ \ge $	/ames U	. (am	ery	12MAY	08

<b>Ser</b> tormi		Site/Unit:	KPS	/ 1			edure:	FR-AA-	NDE-UT-802	Rev 0		Outage N		K1R29
Rose, reduces		nmary No.:		.C5.21.114		Procedure			0		_	Report N		T-08-161
		orkscope:		PSI		Work Ord	R.0.41		07-004170				ige: 1	of 1
							·							
Code:	AS		1 98 Ed/00 Add		Cat./item:	C-F-1/C5.			Location:		AUX	ILIARY BUIL	DING	
Drawing No.:	<del></del>		M-891-1/D1-D02		•	on: 3" FLANGE	TO PIPE W	/ELD						
System ID:	AFW - FR	OM AFW PL	JMPS 1A/1B AND	TURB. DRIVEN PL	JMP DISCH. TO P	EN. 46E								
Component ID:	ISIM-891-1	1/AFW-W15	2					Size/L	_ength:3	3"/10.99"		Thickness/Dia	ameter:	0.300"/3.5"
Limitations:	Single sid	led exam du	ie to configuratio	n					Start	Time:	1240	Finish	n Time:	1249
· · · · · ·	Instrum	ent Setting	s		Search Unit		Cal.	Time	Data		Avial	Orientated So	earch Unit	
Serial No.:		01R5N	WV .	Serial No.:	SB002	28	Checks	lime	Date	Calibr	<del></del>	Signal	Sweep	
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRAUTK	RAMER	Initial Cal.	0730	4/6/2008	Refle		mplitude %	Division	Sound Path
Model:		USN 60			25" Shape:	ROUND	Inter. Cal. Inter. Cal.	1240 N/A	4/6/2008	ID N	otch	80%	5.0	.870"
	7.0113	_ Range: _	1.77"		MHZ Style:	COMP-G	Inter. Cal.	N/A		L				
M'tl Cal/Vel:	.1228 500 ohms	- Pulser: - Reject:	Square 0%	Exam Angle:		lements: Single	Final Cal.	1345	4/6/2008					
Rep. Rate:	Auto High	- Freq.:	2.25 MHZ	Mode: Measured Angl	SHEAR	69		Couplan	t					
Filter:	N/A	Mode:	Fullwave	Wedge Style:	MSW		Cal. Batch:	•	07143		Circumfere	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-220		· · · ·	· · · · · · · · ·	Туре:	SONOTE	ACE 40	Calibr	ation	Signal	Sweep	T
Ax. Gain (dB):	43.0	_ Circ. Gair	n (dB): N/A		Search Unit Cabl	e	Mfg.:	SONOTE	CH INC.	Refle	ector A	mplitude %	Division	Sound Path
10 Screen D	9iv. = <b>1.77</b>	in. of	Sound Path	Туре:	BNC to MCD:	RG-174	Exam Batc	h:	07143	N/	A			
Linearity Report	No.:	L-0	08-003	Length: 6	No. Conn.:	0	Туре:	SONOTE	RACE 40					
	Calibra	ation Block			Scan Coverage		Mfg.:	SONOTE	CH INC.				· · · · · · · · · · · · · · · · · · ·	
Cal. Block No.:		WPS-	73	Upstream	Downstream 🖌	Scan dB: <b>49.0</b>	Ret	ference E	Block		 Refe	rence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	cw	ccw	Scan dB: N/A	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.:	: <u>72</u> Ten	np. Tool:	257125	Exam Surface:	Flat T	opped	Туре:	ROM		dB 37.0	Reflector .3" SDH	Amplitude % 69%	Division 5.0	.891"
Comp. Temp.:	<u>60</u> Ten	np. Tool:	257125	Surface Condit	ion: Si	mooth				07.0		0070	0.0	.031
Recordable Inc	dication(s):	Yes	No 🔽	(If Yes, Ref. Attac	ched Ultrasonic Inc	dication Report.)								
Results:	Accept 🖌	Reje	ct 🗌	Info 🗌				Co				al best effort		am for the
Percent Of Cove	erage Obtain	<b>ed &gt; 90%</b> :	No	Reviewed Prev	vious Data:	N/A			far	side of th	ne weld. Ris	sk informed v	veld.	
Examiner	Level	11	-	Signature		Date Revie	wer			-	A Signatu	re d		Date
Pollock, Norm	an E.		non	an Tolly	4	/6/2008 Ja	emy T	Timm			NO	-	5/	5/08
Examiner	Level	N/A		Signature		Date Site F	eview '			all	Signatu	re		Date
N/A	<u> </u>						PE.BU	Kes	/	Thill		ukes	Thay 5	2008
Other	Level	N/A		Signature		Date ANII F			~	$\overline{}$	Signatu	re	0	Date
N/A							James W.	Niewer	<u>q</u>	_] an	wind	iemery	12 MAY	18



Achieved 50% Risk Informed Coverage



# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-23

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W155 Preservice Examination

### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

### 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-1; Item No. C5.21

# 4. Impracticality of Compliance:

50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W155 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W155 would require modification of the original design of the Auxiliary Feedwater Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W155 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Liquid Penetrant Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements.

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-23

### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

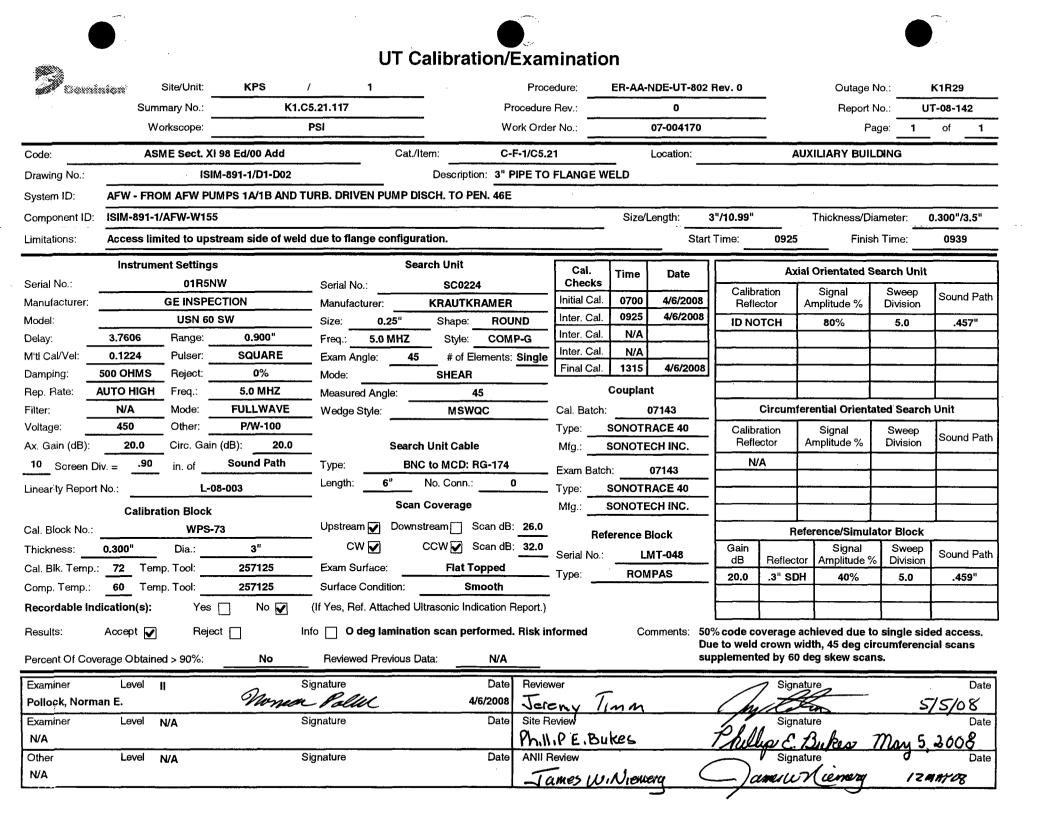
#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

#### 9. References:

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Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.



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<b>an</b> Comi	inion	Site/Unit:	KPS	1	1		Proce	edure:	ER-AA-I	NDE-UT-802	Rev. 0	_	Outage I	No.:	K1R29
	Sumr	mary No.:	K1.	.C5.21.117		_	Procedure	Rev.:		0			Report I	No.: <u>U</u>	T-08-144
	Wo	orkscope:		PSI			Work Orde	er No.:	<u></u>	07-004170			Pa	ige: <b>1</b>	of <b>1</b>
Code:	ASM	/ E Sect. X	98 Ed/00 Add		Cat	./Item:	C-F-1/C5.2	21		Location:		AUX	ILIARY BUIL	.DING	
Drawing No.:		· ISI	M-891-1/D1-D02			Descriptio	on: 3" PIPE TO	FLANGE W	ÆLD						
System ID:	AFW - FRO	M AFW PL	IMPS 1A/1B AND	TURB. DRIV	EN PUMP	DISCH. TO PE	EN. 46E								
Component ID:	ISIM-891-1/	AFW-W15	5						Size/L	ength:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
- Limitations:	Single side	d exam du	e to configuration	n				<u>.    .   .                          </u>	-	Start	Time:	1050	Finis	n Time:	1059
	instrume	nt Setting	s		s	earch Unit			Т						
Serial No.:	motrame	01R5N		Serial No		SC013	B	Cal. Checks	Time	Date		<u></u>	Orientated S		
Manufacturer:		GE INSPE	CTION	Manufac		KRAUTKI		Initial Cal.	0710	4/6/2008	Calibr Refle		Signal	Sweep Division	Sound Path
Model:		USN 60	SW	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1050	4/6/2008	ID No	otch	80%	5.0	.611"
Delay:	5.2884	Range:	1.22"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1224	Pulser:	Square	Exam An	igle: 6	50# of El	ements: Single	Inter. Cal. Final Cal.	N/A 1325	4/6/2008					
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR	·	L			ļ				
Rep. Rate:	Auto High	Freq.:	5 MHZ	Measure	-		<u>.</u>		Couplan					ted Casual	
Filter:	N/A 450	Mode: Other:	Fullwave P/W-100	Wedge S	Style:	MSW		Cal. Batch: Type:	SONOTE	07143		·····			T
Ax. Gain (dB):	36.0	Circ. Gair		—	Sear	ch Unit Cable	2	···	SONOTE		Calibr Refle		Signal mplitude %	Sweэр Division	Sound Path
10 Screen [		in. of	Sound Path	— Туре:		NC to MCD: F					N/	A			
Linearity Repor			)8-003	Length:	6"	No. Conn.:	0	Exam Batc Type:	SONOTE	07143					
Linearity hepoi					Sca	an Coverage		· ·	SONOTE	· · · · · · · · · · · · · · · · · · ·					
Cal. Block No.:		tion Block WPS-		Upstrear		•	Scan dB: N/A	·				Defe	(C)	ter Die ek	
Thickness:	0.300"	Dia.:	3"		v 🔽		Scan dB: 48.0		ference E		Gain	neie	rence/Simula Signal	Sweep	
Cal. Blk. Temp			257125	Exam Su		Flat To		Serial No.:	····	MT-048	dB		Amplitude %		Sound Path
Comp. Temp.:	<b>60</b> Tem	· —	257125	Surface	Condition:		nooth	Туре:	ROM	IPAS	29.0	.3" SDH	56%	5.3	.647"
Recordable In	dication(s):	Yes	No <b>∠</b>	 (If Yes, Re	f. Attached	Ultrasonic Ind	lication Report.)								
Results:	Accept 🔽			Info 📋					Co	mments: Pe	rformed s	kewed sca	n in the circi	umferenciai	direction.
			_	_		_				W	eld root si	gnal noted	when skewe		
Percent Of Cov	verage Obtaine	d > 90%:	No	Reviewe	d Previous	Data:	N/A				ormed we	210.			
Examiner	Level	I	~	Signature			Date Review		<i>–</i>			Signatu	19/1		Date
Pollock, Norn			None	n Pol	m	4.	16/2008 Je		Timp	۸		<u>zti</u>	the		5/5/2
Examiner	Level	N/A		Signature			Date Site R		<b>k</b>	7	0 <u> </u>	Signatu	re _	т. г	Date
N/A Other	Level	N/A	<u>,                                     </u>	Signature			Date ANII F	PE.B	<u>K</u> es	/	лиц	Signatu	re	May 5	2008 Date
N.2	Lovoi	WA .		-ignation -				ames Win	liewern	$\square$	(1 Aut = []	Aiem		IZMAY UZ	
							<u> </u>		1						,,



					01	Juniora			•••						
<b>All</b> Comi	nšon	Site/Unit:	KPS	1	1		Proce	edure:	ER-AA-	NDE-UT-80	2 Rev. 0	_	Outage I	No.:	K1R29
	Sumr	nary No.:	K1	.C5.21.117			Procedure	Rev.:		0		_	Report I	No,: <u>U</u>	T-08-159
	Wo	orkscope:		PSI			Work Orde	er No.:		07-004170		_	Pa	age: <b>1</b>	of <u>1</u>
Code:	ASN	AE Sect. XI	98 Ed/00 Add	<u></u>	Ca	t./Item:	C-F-1/C5.2	1		Location:		AUX	ILIARY BUIL	DING	
Drawing No.:		ISIN	VI-891-1/D1-D02			Description	on: 3" PIPE TO	FLANGE W	ELD	_					
System ID:	AFW - FRO	M AFW PU	MPS 1A/1B AND	TURB. DRIV	/EN PUMP	DISCH. TO PI	EN. 46E						· · · · · · · · · · · · · · · · · · ·		
Component ID:	ISIM-891-1/	AFW-W155	5						Size/	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	Single side	d exam du	e to configuratio	n						Sta	rt Time:	1210	Finis	h Time:	1219
······	Instrume	nt Settings	; ;			Search Unit		Cal.	T			Avial	Opiontated C	aanah Unit	
Serial No.:		01R5N		Serial N	lo.:	SC024	0	Checks	Time	Date			Orientated S		-1 <sup></sup>
Manufacturer:		GE INSPE	CTION	Manufa	cturer:	KRAUTKI	RAMER	Initial Cal.	0720	4/6/2008	Refle	ration ector A	Signal mplitude %	Sweep Division	Sound Path
Model:		USN 60	sw	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1210	4/6/2008	ID N	otch	80%	5.0	.952"
Delay:	7.1497	Range:	1.9"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A		┥匚				
M'tl Cal/Vel:	.1224	Pulser:	Square	Exam A	ngle:	·	lements: Single	Inter. Cal. Final Cal.	N/A 1335	4/6/2008	╣┝───				
Damping:	500 ohms	Reject:	0% 5.0 MHZ	Mode:		SHEAR			Couplai	L	د ال				
Rep. Rate:	Auto High N/A	. Freq.: Mode:	5.0 MHZ Fullwave		ed Angle:	MSW	70	Cal. Batch:	•	07143			ential Orienta	tod Soarol	
Voltage:	450	Other:	P/W-100	Wedge	Style:	1/15/1/1			-	RACE 40		ration	<u> </u>		
Ax. Gain (dB):	46.0	Circ. Gain	(dB): N/A		Sea	rch Unit Cable	8	···		ECH INC.	_		Signal	Sweep Division	Sound Path
10 Screen D	iv. = 1.9	in. of	Sound Path	— Туре:	E	BNC to MCD: F	RG-174	Exam Batcl		07143	- N	/A			
Linearity Report	No.:	 L-0	8-003	Length:	6'	No. Conn.:	0			RACE 40	-				
		tion Block			Sc	an Coverage				ECH INC.					+
Cal, Block No.:	Culbra	WPS-7	73	Upstrea	m 🖌 Dov	vnstream [] S	Scan dB: <b>52.0</b>				-	Refe	rence/Simula	ator Block	1
Thickness:	0.300"	Dia.:	3"	C'	w	ccw 🗌 s	Scan dB: N/A		erence		Gain	T	Signal	Sweep	On the Date
Cal. Blk. Temp.:	72 Tem	p. Tool:	257125	Exam S	urface:	Flat To	opped	Serial No.:		MT-048	dB	Reflector			Sound Path
Comp, Temp.:	<b>60</b> Tem	p, Tool:	257125	Surface	Condition:	Sr	nooth	Туре:		VIPAS	- 46.0	.3" SDH	95%	5.3	1.001"
Recordable Ind	lication(s):	Yes	<u> </u>	(If Yes, R	ef. Attached	d Ultrasonic Ind	lication Report.)					<u> </u>	<u> </u>	+	i
Results:	Accept 🖌	Rejec	ct 🗌	Info 🗌					C				tal 70 deg ex		
Percent Of Cove	erage Obtaine	d > 90%:	<u>No</u>	Review	ed Previous	s Data:	N/A				nformed w		weld crown d	configuration	on. Kisk
Examiner	Level	<u> </u>		Signature			Date Review	ver				Signati	10/		Date
Pollock, Norma	an E		nona	n Pat	lu_	4	16/2008 Jer	emy T	mm	1	(	h C	the second		5/5/08
Exanviber	Level	V/A		Signature			Date Site R				2111	Signatu	ire 1		Date
N/A					······.			NPE.BI	ikes		hilles	· C. B		May 5,	
Other N/A	Level	N/A		Signature			Date ANII F	-	1		$\neg$	Signatu	•	v	Date
N/A								imes w. A	lench	q	-James	u V ce	mercy	12MAY	08

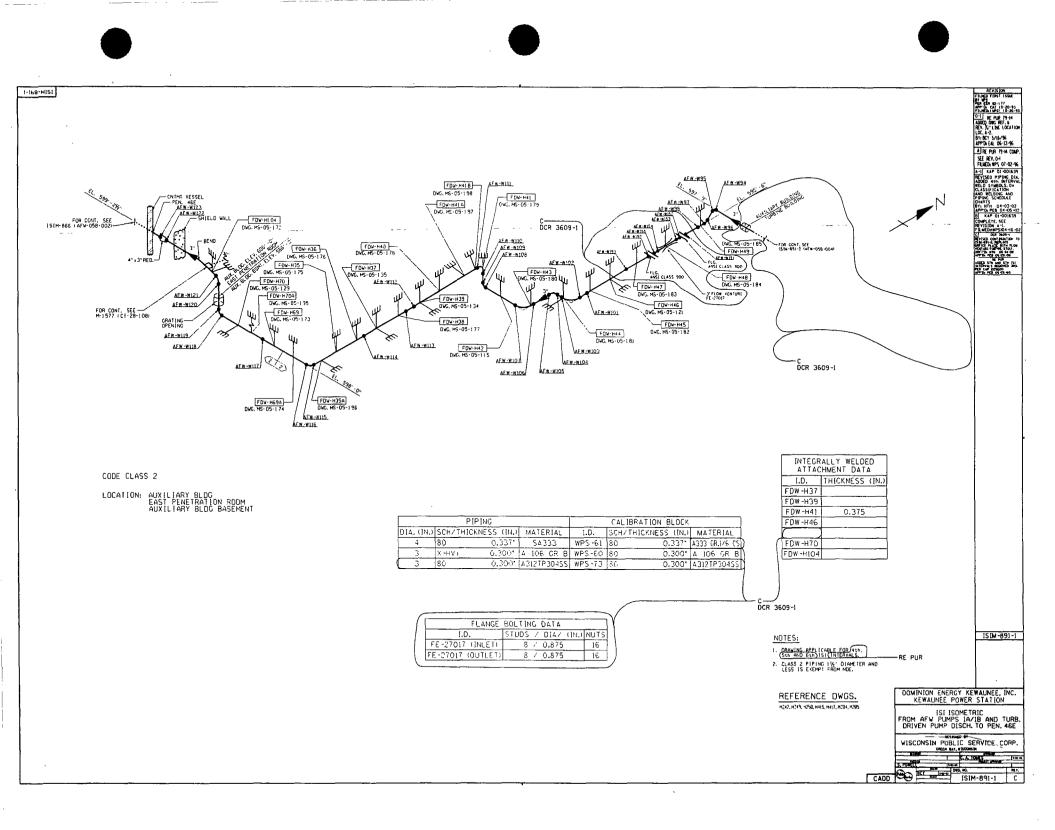




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					01										
Som Com	ániqn:	Site/Unit:	KPS	/	1			edure:	ER-AA-	NDE-UT-802 F	Rev. 0	_	Outage I	·	K1R29
		mary No.:		1.C5.21.117			Procedure	·		0		_	Report I		T-08-160
	W	orkscope:		PSI			Work Orde	r No.:		07-004170		<u> </u>	Pa	ige: <b>1</b>	of <u>1</u>
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat	:/Item:	C-F-1/C5.2	1	_	Location:		AU	(ILIARY BUIL	DING	
Drawing No.:		ISI	M-891-1/D1-D02			Descriptio	on: 3" PIPE TO	FLANGE W	ELD						
System ID:	AFW - FRO	OM AFW PU	MPS 1A/1B AND	TURB. DRIV	EN PUMP	DISCH. TO PE	IN. 46E								
Component ID:	ISIM-891-1	I/AFW-W155	, . <u>.</u>						Size/	Length: 3	"/10.99"		Thickness/Dia	ameter:	0,300"/3.5"
Limitations:	Single sid	ed exam du	e to configuratio	on 👘						Start	Time:	1250	Finis	n Time:	1259
	Instrum	ent Settings			S	earch Unit		Cal.	Time	Data	[	Arial	Orientated S	earch Unit	
Serial No.:		01R5N	W	Serial N	o.:	SB002	3	Checks	Time	Date	Calib		Signal	Sweep	
Manufacturer:		GE INSPE	CTION	Manufac	turer:	KRAUTKF	RAMER	Initial Cal.	0730	4/6/2008	Refle		mplitude %	Division	Sound Path
Model:		USN 60		Size:	0.25"	Shape:	ROUND	Inter, Cal.	1250	4/6/2008	ID N	otch	80%	5.0	.870"
Delay:	7.0113	_ Range: _	1.77"	Freq.:	2.25 MHZ		COMP-G	Inter. Cal. Inter. Cal.	N/A N/A						L
M'tl Cal/Vel:	.1228	- <sup>Pulser:</sup> -	Square 0%		ngle: 7		ements: Single	Final Cal.	1345	4/6/2008					
Damping: Rep. Rate:	500 ohms Auto High	_ <sup>Reject:</sup> _ Freq.:	2.25 MHZ	Mode:		SHEAR	9	<b></b>	Couplar	nt					+
Filte:	N/A	– Mode: –	Fullwave	Wedge	ed Angle: Style	MSW0		Cal. Batch:	•	07143		 Circumfer	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-220	<u> </u>						RACE 40	Calibi	<u> </u>	Signal	Sweep	T
Ax. ©∋in (dB):	43.0	Circ. Gain	(dB): N/A		Sear	rch Unit Cable	•	Mfg.:	SONOTI	ECH INC.	Refle	1	mplitude %	Division	Sound Path
10 Screen I	Div. = 1.77	in. of	Sound Path	Туре:	B	NC to MCD: F	G-174	Exam Batch	h:	07143	N	/A			
Linearity Repor	rt No.:	L-0	8-003	Length:	6'	No. Conn.:	0			RACE 40					
	Calibra	ation Block			Sca	an Coverage		Mfg.:	SONOTI	ECH INC.					+
Cal. Block No.:	:	WPS-7	73	Upstrea	n 🖌 Dow	nstream 🗌 S	can dB: <b>49.0</b>	– Ref	erence	Block		Refe	rence/Simula	tor Block	<u> </u>
Thickness:	0.300"	Dia.:	3"	c\	v 🗀	ccw_ s	ican dB: N/A	Serial No.:		MT-048	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp	o.: <b>72</b> Tem	np. Tool:	257125	Exam Si	urface:	Flat To	opped	Туре:		APAS	dB 37.0	Reflector .3" SDH	Amplitude %	Division 5.0	.891"
Comp. Temp.:	<u>60</u> Ten	np. Tool:	257125	Surface	Condition:	Sn	nooth				57.0	.5 3011	03 /8	5.0	.091
Recordable In	ndication(s):	Yes	□ No 🔽	(If Yes, Re	ef. Attached	Ultrasonic Indi	cation Report.)								
Results:	Accept 🖌	Rejec	ot 🔲	Info					Co	omments: Per			tal best effori sk informed v		am for the
Percent Of Cov	verage Obtain	ed > 90%:	No	Review	ed Previous	Data:	N/A								
Examiner	Level	11		Signature			Date Review	ver	_			Bignatu	19/		Date
Pollock, Norn	nan E.		nom	a la	<u>al</u>	4/	6/2008 Jere		IMM			h le	the -	<u> </u>	5/5/08
Examiner	Level	N/A		Signature			Date Site R					Signatu			Date
N/A				Signature			Date ANII R	PE. BU	Kes		Mul	<u>lip C. 7</u>	Sukes 1	<u>Nay 5</u> ,	
Other N/A	Level	N/A		Signature				ames W						,>	Date
							<u> </u>	unco W		~~~ <u>~</u>	Z		une u		

	Supplemental Rep	ort	
Dominion		Report No.:	UT.08-14Z
		Page:	of
Summary No.: K1.65.21.117	Polit		a A
Examiner: Pollock, Norman E.	Level Reviewer.	Jeremy Timm Intern	Date: 515708
Examiner: <u>N/A</u>	Level: <u>MA</u> Site Review:	·	0
Other: <u>N/A</u>	Level: <u><i>NIA</i></u> ANII Review:	Junesw. Noner Jane Whimery	Date: <u>IZMAYOB</u>
Comments: COVERAGE	DINT		
Sketch or Photo:			
1	hickness Measurements 0.290" 0.300" AFW-W155		
	0.365" Weld Crown Width 0.6" 0.478" Elow	5	
Φ		Flange	
Dine	45° 70°		
Pipe			
		Total Risk Informed Examination Volume = 0.2517 Sq.	Inches
		Best Effort Axial Examination Coverage Downstream 3	0% 70
Axial Examination Coverage Upstream 100% 7	0 Degree	Degree	
Circ Examination Coverage Upstream 100% With 45 Degree And Supplemental By 60 Degree Sk Clockwise And Counter Clockwise	ew Scans	Circ Examination Coverage Downstream 0% With 45 Degree And Supplemental By 60 Degree Skew Clockwise And Counter Clockwise	Scans
	Examination Volume Dimensions = Height 0.100" Length 1.6" Achieved 50% Risk Informed Examination Covera		



### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-24

# PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

### 1. ASME Code Component Affected:

3" Auxiliary Feedwater Circumferential Weld AFW-W156 Preservice Examination

# 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

# 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

# 4. Impracticality of Compliance:

32.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W156 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 32.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W156 would require modification of the original design of the Auxiliary Feedwater Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W156 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice Inspection examinations, if required, will be performed by the Radiography Method

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### **RELIEF REQUEST NO: RR-G-5-24**

to achieve required examination volume.

- 7. Duration of Proposed Alternative:
  4th Ten-Year Interval June 16, 2004 June 16, 2014
- 8. Precedents:

Not Applicable

# 9. References:

Not Applicable

					i Galibia					_				
<b>MP</b> thoma	nion	Site/Unit:	KPS	/ 1			edure:	ER-AA-	NDE-UT-801	Hev. 0	_	Outage	<del></del>	K1R29
		mmary No.:		.C5.61.155 PSI	<u> </u>	Procedure			0			Report		T-08-274
	v	Vorkscope:	·····	PSI		Work Ord	er No.:		07-009669			P	age: 1	of <u>1</u>
Code:	A	SME Sect. X	198 Ed/00 Add		Cat./Item:	C-F-2/C5.	61 		Location:		Т	URBINE BUIL	DING	<u></u> "
Drawing No.:			ISIM-891-2		Descript	tion: 3" VALVE	TO PIPE WE	LD						
System ID:	AFW - FR	IOM AFW PU	JMPS 1A/1B AND	TURB. DRIVEN PU	MP DISCH. TO F	PEN. 46E								
Component ID:	ISIM-891-	2/AFW-W15	6					Size/	Length:	3"/10.99"		Thickness/D	ameter:	0.300"/3.5"
Limitations:	None	-		-					Start	Time:	0740	Finis	h Time:	0749
	instrun	nent Setting	s		Search Unit		Cal.				Assia			
Serial No.:		01R5N	1W	Serial No.:	SC01	38	Cal. Checks	Time	Date	Oulibr				1
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRAUTK	RAMER	Initial Cal.	0700	4/25/2008	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60		Size:0.2	5" Shape:	ROUND	Inter. Cal.	0740	4/25/2008	ID No	otch	80%	5.0	.461"
Delay:	3.3775	Range:	.939"	Freq.:5.0 M			Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	_ <sup>Pulser:</sup> _	Square	Exam Angle:		Elements: Single	Final Cal.	N/A 1350	4/25/2008	<u> </u>				
Damping:	500 ohms	Reject: _	0% 5.0 MHZ	Mode:	SHEAR		l		<u>_</u>	<u> </u>				
Rep. Rate:	Auto-High N/A	<sup>Freq.:</sup> _ Mode:	Fuliwave	Measured Angle		45	Cal. Batch:	Couplai	07143		Circumfo	 rential Orient		
Voltage:	450	- Other:	P/W-100	Wedge Style:	MSW				RACE 40	Calibr				
Ax. Gain (dB):	19.0dB	Circ. Gair		 3	Search Unit Cab	le	··	*****	ECH INC.	Refle		Signal Amplitude %	Sweep Division	Sound Path
10 Screen D	Div. = .939	in. of	Sound Path	 Туре:	BNC to MCD:		Exam Batcl		07143	N/	A	· ·		
Linearity Report		- — L-0	08-003	Length: 6	No. Conn.	: 0			RACE 40					
Encarty rispon					Scan Coverage	)	· · · ·		ECH INC.					
Cal. Block No.:	Canbr	ration Block WPS-		Upstream 🖌	Downstream 🔽	Scan dB: 31.0					<u>I</u>		eter Black	1
Thickness:	0.300"	Dia.:	3"	cw 🔽		Scan dB: 37.0		erence		Gain	ne	erence/Simul	Sweep	
Cal. Blk. Temp.		mp. Tool:	259564	Exam Surface:		 DD	Serial No.:	<u> </u>	MT-111	dB	Reflecto	Amplitude %		Sound Path
Comp. Temp.:	<b>75</b> Te		259564		on: FLA	T TOPPED	Туре:	HUN	IPAS	25.0	.3" SDH	44%	4.8	.452"
Recordable In			N₀ 🔽	(If Yes, Ref. Attac	hed Ultrasonic In	dication Report.)	•					·		l
Results:	Accept 🔽			Info 🗌				C	omments: 0 d	eg lamina	L. ation scar	 performed. I	lisk inform	ed weld
		_		—				0.		eg lannin		i portorniou. i		
Percent Of Cov	erage Obtair	ned > 90%:	<u>No</u>	Reviewed Prev	ious Data:	N/A			_					
Examiner	Level	11		Signature		Date Revie	wer			/	7 Signat	ure		Date
Polleck, Norm			nom	Paller	4/	25/2008 J	eremy	Timm		1	y la	25	5/1	3/08
Examiner	Level	N/A		Signature		Date Site F	leview			DI	Signat		N <i>4</i>	Date
N/A. Other	Level		·	Signature			II.P.E.I Review	<u>Suke</u>	<u>s</u>	The	lip C		<u> 1804 13</u>	2008
N/A	Level	N/A		Signature			ames W	Al		$\frown$	Signal	liemery	13 mA	Date
L							ames w	1 100	nery		myw,	<u> </u>	· > ////	100

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<b>Ser</b> tana	inion	Site/Unit:	KPS	/ 1			Proce	edure:	ER-AA-NDE-UT-801 Rev. 0				Outage	No.:	K1R29		
	Sum	mary No.:	K1	1.C5.61.155		_	Procedure	Rev.:		0		_	Report	No.: U	T-08-275		
	W	orkscope:		PSI			Work Orde	r No.:		07-009669		_	Pa	age: <b>1</b>	of <b>1</b>		
Code:	ASI	ME Sect. XI	1 98 Ed/00 Add		Cat./Item: C-F-2/C5.61					Location:		τι					
Drawing No.:			ISIM-891-2		_	Description	n: 3" VALVE T	O PIPE WEI	LD								
System ID:	AFW - FRC	M AFW PU	IMPS 1A/1B AND	D TURB. DRIVEN P	UMP DI	SCH. TO PE	N. 46E										
Component ID:	ISIM-891-2	AFW-W156	3						Size/	Length:	3"/10.99"	· · · <u></u>	Thickness/Di	iameter:	0.300"/3.5"		
Limitations:	None									Start	Time:	1200	Finis	h Time:	1209		
	Instrume	ent Settings	5		Sea	ırch Unit		Cal.				Δvia	Orientated S	Coarch Unit			
Serial No.:		01R5N	IW	Serial No.:		SC0138		Checks	Time	Date	Calibi		Signal		1		
Manufacturer:		GE INSPE	CTION	Manufacturer:		KRAUTKR	AMER	Initial Cal.	0710	4/25/2008	Refle		Signal Amplitude %	Sweep Division	Sound Path		
Model:		USN 60		Size: 0.	.25"	Shape:	ROUND	Inter. Cal.	1200	4/25/2008	ID N	otch	80%	5.0	.600"		
Delay:	4.9966	_ Range: _	1.2"	Freq.: 5.0	MHZ	Style:	COMP-G	Inter. Cal.	N/A								
M'tl Cal/Vel:	.1268	- Pulser: -	Square	Exam Angle:	60		ments: Single	Inter. Cal. Final Cal.	N/A 1400	4/25/2008							
Damping:	500 ohms	- Reject: -	0%	Mode:		SHEAR				·							
Rep. Rate:	Auto High	- Freq.: -	5.0 MHZ	Measured Ang		59			Couplar					to H Operation	· ·		
Filter:	N/A	_ Mode: _ Other:	Fullwave P/W-100	Wedge Style:		MSWQ	<u>c</u>	Cal. Batch:		07143		F	rential Orienta				
Ax. Gain (dB):	32.5	_ Circ. Gain		—	Search	n Unit Cable		··· —		ECH INC.	Calibre Calibre Calibre		Signal Amplitude %	Sweep Division	Sound Path		
		- in. of	Sound Path	Туре:		to MCD: R		·			N/	/A					
10 Screen D						No. Conn.:	0	Exam Batch		07143		<u> </u>			1		
Linearity Report	t No.:	L-0	08-003			-		· · · · · · · · · · · · · · · · · · ·						<u> </u>			
	Calibra	tion Block				Coverage		Mfg.:	SONOTE	ECH INC.		_					
Cal. Block No.:		WPS-0					can dB: N/A	Refe	erence E	Block		Ref	erence/Simul	ator Block			
Thickness:	0.300"	Dia.:	3"	CW 🖌		_	can dB:	Serial No.:	L	MT-111	Gain dB	Reflector	Signal Amplitude %	Sweep 6 Division	Sound Path		
Cal. Blk. Temp.		np. Tool:	259564	Exam Surface		OD		Туре:	RON	MPAS	32.5	.3" SDH	70%	5.0	.605"		
Comp. Temp.:	<u>75</u> Tem		259564	Surface Cond				. —									
Recordable In	dication(s):	Yes	No 🔽	(If Yes, Ref. Atta	ached Ul	trasonic India	ation Report.)										
Results:	Accept 🖌	Rejec	et 🗌	Info					Co				an in the circ d when skewe				
Percent Of Cov	/erage Obtaine	∋d > 90%:	No	Reviewed Pre	evious Da	ata:	N/A				ormed we	-					
Examiner	Level	 		Signature			Date Review	ver				7 Signati			Date		
Pollock, Norm	ian E.		non	n Polk		4/25	5/2008 Jee	remy Ti	imm			V.E	the -	5/	3/08		
Examiner	Level	N/A		Signature			Date Site Re				NI	Signati	ure		Date		
N/A			<u> </u>					PE.Buk	<u>ces</u> -		Thele	p.C.B.	Real	May 13			
Other	Level	N/A		Signature			Date ANII R		1			Signat	<b>~</b>		Date		
N/A.							a	imes W, N	renera		_ am	unc	imery	13 MAY d	3		

								_							
	-					Oslibust									
					UI	Calibrat	ion/Exar	ninatic	n						
<b>W</b> omi	nion	Site/Unit:	KPS	1	1		Proc	edure:	ER-AA-	NDE-UT-801	Rev. O		Outage N	No.:	K1R29
·	Sum	mary No.:	K	1.C5.61.155			Procedure	e Rev.:		0		-	Report N	No.: <b>U</b>	T-08-276
	Wo	orkscope:		PSI			Work Ord	er No.:		07-009669			Pa	ige: 1	of 1
Code:	ASI	ME Sect. XI	98 Ed/00 Add		Cat	t./Item:	C-F-2/C5.	51		Location:		TU	RBINE BUILD	DING	
Drawing No.:			ISIM-891-2		•	Descriptio	on: 3" VALVE	TO PIPE WE							<u> </u>
System ID:	AFW - FRO	M AFW PU	MPS 1A/1B AN	D TURB. DRIV	EN PUMP	DISCH. TO PE	EN. 46E								
Component ID:	ISIM-891-2	/AFW-W156	;				· · · · · · · · · · · · · · · · · · ·		Size/	Length: 3	8"/10.99"		Thickness/Dia	ameter: (	0.300"/3.5"
Limitations:	None				<u>.</u>		<u> </u>				Time:	1600	- Finisl	n Time:	1609
		t. Catting a				earch Unit									
Serial No.:	instrume	ent Settings 01R5N		O anial N			•	Cal. Checks	Time	Date		Axial	Orientated S	earch Unit	
Manufacturer:	· · · · · · · · · · · · · · · · · · ·	GE INSPEC		Serial No Manufac		SC0240 KRAUTKF		Initial Cal.	0720	4/25/2008	Calibi Refle		Signal mplitude %	Sweep Division	Sound Path
Model:		USN 60		Nianulac Size:	0.25"	Shape:	ROUND	Inter. Cal.	1600	4/25/2008	ID N		80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.;	5.0 MHZ		COMP-G	Inter. Cal.	N/A				00 /0		.334
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Ar	ngle: 7		ements: Single	Inter. Cal.	N/A						
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR		Final Cal.	1750	4/25/2008					1
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measure	d Angle:	6	9		Couplai	nt					
Filter:	N/A	Mode:	Fullwave	Wedge \$	Style:	MSWO	DC	Cal. Batch	:	07143		Circumfer	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100					Туре:		RACE 40	Calibi		Signal	Sweep	Sound Path
Ax. Gain (dB):	42.3	Circ. Gain			Sear	rch Unit Cable	•	Mfg.:	SONOT	ECH INC.	Refle		mplitude %	Division	
10 Screen D	iv. = <b>1.94</b>	in. of	Sound Path	Туре:		NC to MCD: F		Exam Bato	:h:	07143	N	A		····	<u> </u>
Linearity Report	No.:	L-0	8-003	Length:	6'	No. Conn.:	0	Type:	SONOT	RACE 40					+
	Calibra	tion Block			Sca	an Coverage		Mfg.:	SONOT	ECH INC.					1
Cal. Block No.:		WPS-6	50	Upstrea	m 🖌 Dow	nstream 🖌 S	Scan dB: 48.3	Re	ference	Block		Refe	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	CV	v 🗌	ccw 🗌 s	Scan dB: N/A	Serial No.:		MT-111	Gain	Deflected	Signal	Sweep	Sound Path
Cal. Blk. Temp.:	<b>70</b> Tem	p. Tool:	259564	Exam St	ırface:	0	D	Type:		MPAS	dB 42.3	Reflector .3" SDH	Amplitude %	Division 4.8	.930"
Comp. Temp.:	<u>75</u> Tem	р. Тооl:	259564	Surface	Condition:	FLAT	TOPPED				42.5	.5 3011	0078	4.0	.930
Recordable Ind	lication(s):	Yes	No ☑	(If Yes, Re	ef. Attached	Ultrasonic Ind	ication Report.)						<u>†</u>		
Results:	Accept 🖌	Rejec	x 🗌	Info					C	omments: Pei	rformed s	supplement	tal 70 deg sca	an to obtain	ı code
Dereast Of Car		d > 00% ·	- No	Poiow	od Provácuja	Data	N1/A			cov we		ie to weld o	crown config	uration. Ris	k informed
Percent Of Cove	erage Obtaine	sd > 90%:	No	Review	ed Previous		N/A								<u> </u>
Examiner	Level	11	-	Signature			Date Revie		Ŧ		/	Signatu		-	Date
Pollock, Norma			Hor		<u> </u>	4/2	5/2008 Je	<u>leny</u>	linn			y A	5	5/1	3/08
Examiner	Level	N/A		Signature			Dale Siler	Neview	N 1/-		Â	Signatu		-04	Date
N/A	level			Signature				IPE. E	sukes		The		Buke	<u>1/lay13</u>	9008
Other	Level	N/A		Signature			Date ANII	Review		$\sim$		Signatu	Ire	•	Date

4

N/A

James W, Niemerg

13MAYOB

comora

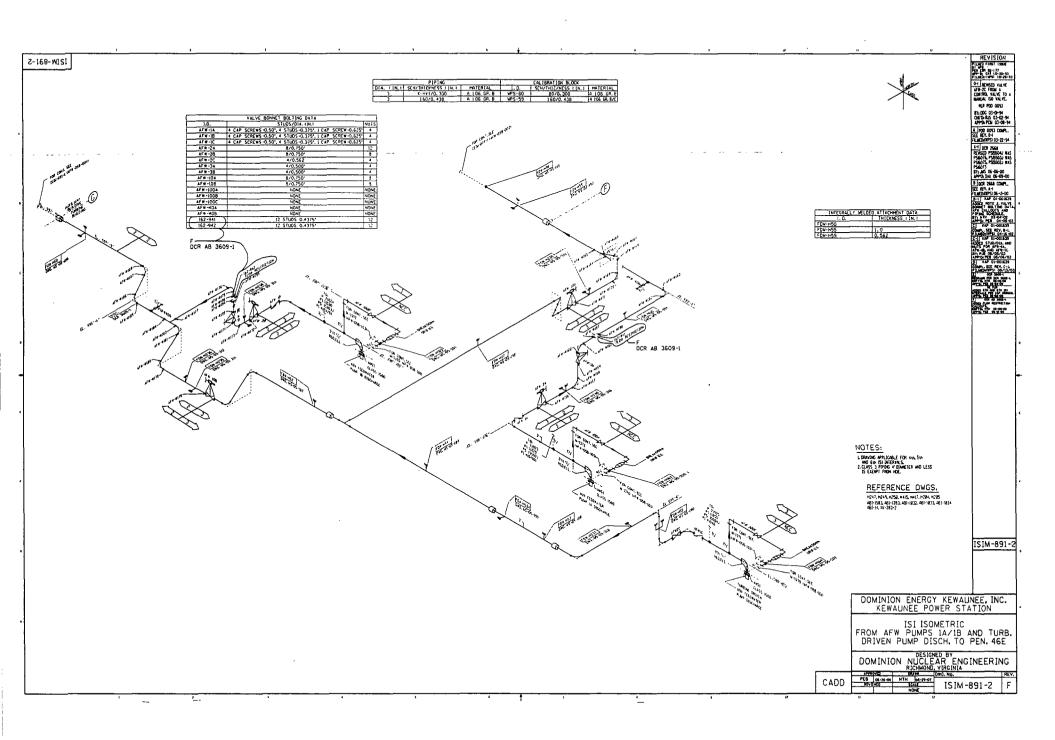
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# Supplemental Report

Dominion	Report No.: <u>UT-08-274</u> Page:   of
Summary No.: <u>KI.C5.61.155</u> Examiner: <u>Pollock Norman Babuu</u> Examiner: <u>N/A</u>	Level: II Reviewer: Jeremy Timm Jon the Date: 5/13/08 Level: N/A Site Review: Phil. P.E. Bukes Phillips Chukes Date: May 13 2007
Other: <u>MIA</u>	Level: MIA ANII Review: Janesw, Niemerg Janus W. Niemerg Date: 13 MA 108
Comments: COVERAGE PLOT	
	AFW-W156 Weld Crown Width: .80" 1. NA 2. NA 3387"
Sketch or Photo:	Flow 5320"
Valve	1 70 45 Pipe
k	Total Risk Informed Examination Volume = .1917 Sq. Inches
Axial Examination Coverage Upstream 73% 45 & 70 degree * 45 & 70 Degree Scans were also performed on flat top weld. Total Area of Coverage Achieved .0701 Sq. Inches. Total Area of Risk Informed Examination Volume .0946 Sq. Inches	Axial Examination Coverage Downstream 100% 45 & 70 Degree * 45 & 70 Degree Scans were Also Performed on Flat top weld.
Circ Examination Coverage Upstream 0%	Circ Examination Coverage Downstream 100% With 45 degree and Supplemented by 60 degree skew scans Clockwise and Counter Clockwise * 45 and 60 degree Scans were also performed on flat top weld
	ensions = Height 0.10" Length 11.0" Width 1.80"

Axial Upstream 73% Axial Downstream 100% Circ Upstream 0% Circ Downstream 100%

Achieved 68% Risk Informed Examination Coverage



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-25

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W171 Preservice Examination

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

# 4. Impracticality of Compliance:

15.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W171 was inaccessible due to Pipe to Valve Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 15.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W171 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W171 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice Inspection examinations, if required, will be performed by the Radiography Method

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# **RELIEF REQUEST NO: RR-G-5-25**

to achieve required examination volume.

- 7. Duration of Proposed Alternative:
  4th Ten-Year Interval June 16, 2004 June 16, 2014
- 8. Precedents: Not Applicable

#### 9. References:

Not Applicable

-

| s              | ite/Unit:  | KPS   | 1  | 1   
  | Pulliplui  
   | Proc  
   | edure:  | ER-AA-   | NDE-UT-801 F   
  | Rev. 0   |   
   | Outage   | No.:   | K1R29  |
|----------------|--|---|--
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	ary No.:	K	1.C5.61.170
  |  
   | Procedure   
   | e Rev.:   |  | 0  
  |  | -   
   | Report   | No.: U   | T-08-223   |
| Wor            | kscope:  |   | PSI                                      |   
  | _  
   | Work Ord  
   | er No.:   |  | 07-009669  
  |  | _   
   | Р  | age: <b>1</b>  | of <b>1</b>  |
| ASM            | E Sect. X  | 98 Ed/00 Add  |  | Cat   
  | /ltem:   
   | C-F-2/C5.   
   | 61  |  | Location:  
  | ·····  | <u>—</u> т  
   | URBINE BUIL  | DING   |  |
|                |  | ISIM-891-2  |  |   
  | Descriptio   
   | n: 3" PIPE TO   
   | VALVE WE  | LD   | -  
  | - 2  |   
   |  |  |  |
| AFW - FROM     | I AFW PU   | JMPS 1A/1B AND  | TURB. DRIVE                              |   
  | DISCH. TO PE   
   | N. 46E  
   |   |  |  
  | <u> </u>   |   
   |  |  |  |
| ISIM-891-2/A   | FW-W17   | 1   |  | · · · · · · · · · · · · · · · · · · ·   
  |  
   |   
   |   | Size/  | Length: 3  
  | 3"/10.99"  |   
   | Thickness/D  | iameter:   | 0.438"/3.5"  |
| None           |  |   |  |   
  |  
   |   
   |   |  | Start  
  | Time:  | 0810  
   | Finis  | sh Time:   | 0819   |
|                | 4.0-14   |   |  |   
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| instrumen      | •  |   | Corial No.                               |   
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   | Orientated S   | Search Unit  |  |
|                |  |   | <u> </u>                                 |   
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   |   
   | Initial Cal.  | 0700   | 4/25/2008  
  |  |   
   | Signal<br>Amplitude %  | Sweep  | Sound Path   |
|                |  |   |  |   
  |  
   |   
   | Inter. Cal.   | 0810   | 4/25/2008  
  | J  |   
   |  | ·····  | .632"  |
| 3.3775         | Range:   | .939"   | Freq.:                                   | 5.0 MHZ   
  | ···· · -   
   |   
   | Inter. Cal.   | N/A  |  
  |  |   
   | 0070   |  |  |
| .1268          | Pulser:  | Square  | Exam Ang                                 | gle: 4  
  | 5 # of Ele   
   | ements: Single  
   | Inter. Cal.   | N/A  |  
  |  |   
   |  |  |  |
| 500 ohms       | Reject:  | 0%  | Mode:                                    |   
  | SHEAR  
   |   
   | Final Cal.  | 1350   | 4/25/2008  
  |  |   
   |  |  |  |
| Auto-High      | Freq.:   | 5.0 MHZ   |  |   
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   |  |  |  |
| N/A            | Mode:  |   | Wedge S                                  | tyle:   
  | MSWC   
   | 0C  
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   | Signal<br>Amplitude %  | Sweep<br>Division  | Sound Path   |
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   | Serial No.:   | L  | MT-111   
  | Gain<br>dB   | Reflecto  
   |  |  | Sound Path   |
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   |   
   | Туре:   | RON  | IPAS   
  | 19.0   | i   
   |  | 8.2  | 1.043"   |
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| dication(s):   | Yes  |   | (It Yes, Het                             | . Attached  
  | Ultrasonic Indi  
   | cation Heport.)   
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   |   | Co   | omments: 0 d   
  | eg lamina  | ation scar  
   | performed.   | Risk inform  | ed weld.   |
| erage Obtained | > 90%:   | No  | Reviewed                                 | d Previous  
  | Data:  
   | N/A   
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   | line   | 13 M/  | Date   |
|                | Summ<br>Wor<br>ASM<br>AFW - FROM<br>ISIM-891-2/A<br>None<br>Instrumen<br>(0<br>3.3775<br>.1268<br>500 ohms<br>Auto-High<br>N/A<br>450<br>19.0<br>Div. = .939<br>NO.:<br>Calibration<br>0.438"<br>: 70 Temp.<br>75 Temp.<br>dication(s):<br>Accept ∑<br>terage Obtained<br>Level II<br>an E.<br>Level N | Summary No.:<br>Workscope:<br>ASME Sect. X<br>AFW - FROM AFW PL<br>ISIM-891-2/AFW-W17<br>None<br>Instrument Setting:<br>01R5N<br>GE INSPE<br>USN 60<br>3.3775 Range:<br>1268 Pulser:<br>500 ohms Reject:<br>Auto-High Freq.:<br>N/A Mode:<br>450 Other:<br>19.0 Circ. Gain<br>N/A Mode:<br>450 Other:<br>19.0 Circ. Gain<br>19.0 Cir | Summary No.:       K'         Workscope: | Summary No.:         K1.C5.61.170           Workscope:         PSI           ASME Sect. XI 98 Ed/00 Add         ISIM-891-2           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVI         ISIM-891-2/AFW-W171           None         01R5NW           Instrument Settings         01R5NW           GE INSPECTION         Manufact           USN 60 SW         Size:           3.3775         Range:         939"           1268         Pulser:         Square           Exam Ange:         0%         Mode:           Auto-High         Freq.:         5.0 MHZ           Mode:         Fullwave         Wedge S           V/A         Mode:         Fullwave           N/A         Mode:         Fullwave           N/A         Mode:         Fullwave           N/A         Mode:         Fullwave           N/A         Mode:         Fullwave           No.:         L-08-003         Length:           19.0         Circ. Gain (dB):         19.0           No.:         L-08-003         Length:           Calibration Block         WPS-59         Upstream           0.438"         Dia.:         3"         CW <t< td=""><td>Summary No.:         K1.C5.61.170           Workscope:         PSI           ASME Sect. XI 98 Ed/00 Add         Cat.           ISIM-891-2         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP I           ISIM-891-2/AFW-W171         None           None         Serial No.:           GE INSPECTION         Manufacturer:           USN 60 SW         Size:         0.25"           3.3775         Range:         .939"         Freq.:         5.0 MHZ           .1268         Pulser:         Square         Exam Angle:         4           500 ohms         Reject:         0%         Mode:         Mode:           N/A         Mode:         Fullwave         Wedge Style:         9           19.0         Circ. Gain (dB):         19.0         Serial         Serial           N/A         Mode:         Fullwave         Wedge Style:         9           19.0         Circ. Gain (dB):         19.0         Serial         Serial           N/A         Mode:         Fullwave         Wedge Style:         9           19.0         Circ. Gain (dB):         19.0         Serial         Serial           No.:         L-08-003         Length:         6'         <td< td=""><td>Summary No.:         K1.C5.61.170           Workscope:         PSI           ASME Sect. XI 98 Ed/00 Add         Cat./Item:           ISIM-891-2         Descriptio           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PE         ISIM-891-2/AFW-W171           None         Instrument Settings         Search Unit           01R5NW         Serial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKR           USN 60 SW         Size:         0.25"         Shape:           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Style:           .1268         Pulser:         Square         Exam Angle:         45         of Eke           .1268         Pulser:         Square         Exam Angle:         44           N/A         Mode:         Fullwave         Wedge Style:         MSWC           .450         Other:         P/W-100         Search Unit Cable         No.Conn::           .10.:         L-08-003         Length:         6'         No.Conn::           .10.:         L-08-003         Scan Coverage         OW         Scan Coverage           .10.:         L-08-003         Scan Coverage         OW         <td< td=""><td>Summary No.:         K1.C5.61.170         Procedum           Workscope:         PSI         Work Ord           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Description: 3" PIPE TO           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None         Manufacturer:         KRAUTKRAMER           USN 60 SW         Sterial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           USN 60 SW         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq::         5.0 MHZ         Stape:         COMP-G           .1268         Pulser:         Square         Exam Angle:         45         # of Elements: Single           500 ohms         Reject:         0%         Mode:         SHEAR         Masured Angle:         45           N/A         Mode:         Fullwave         Wedge Style:         MSWQC         Vedge Style:         MSWQC           V/A         Mode:         19.0         Scon dB: 31.0         CCW Y</td><td>Summary No:         K1.C5.61.170         Procedure Rev.:           Workscope:         PSI         Work Order No::           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description:         3" PIPE TO VALVE WE           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None        </td><td>Summary No:         K1.C5.61.170         Procedure Rev:           Workscope:         PSI         Work Order No.:           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description: 3° PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           State         State         Scatas           01155/W         Serial No::         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           Instrument Settings         Size:         0.25"           USN 60 SW         Size:         0.25"           3.3775         Range:         939"           Freq.:         5.0 MHZ         Style:           Mode:         SHEAR         Could Inter. Cal.           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         SHEAR           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         State:           01her:         Off         Mode:           1288         Pulser:         SQuare           Soudhms         Freq.:         5.0 MHZ           Mages tyle:         MSWQC         <t< td=""><td>Summary No.:         K1.C5.51.170         Procedure Rev.:         0           Workscope:         PSI         Work Order No.:         07-009669           ASME Sect. XI 99 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:           ISIM-891-2         Description:         3" PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3           Instrument Settings         Search Unit         Sci2/Length:         3           One         Start         Sci18 No.:         SC0138         Initial Cal.         0700 4/25/2008           Instrument Settings         Serial No.:         SC0138         Initial Cal.         0701 4/25/2008           Instrument Settings         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Stort         Ontol 4/25/2008           Inter. Call         Pulser:         Stort         Stort         MAde:         MAde:         MAde:         MAde:           J268         Pulser:         Stort         Mcde:         Stort         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:</td><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:           ISIM-691-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E           ISIM-591-2/AFW-W171         Size/Length:         3'/10.99''           None         Start Time:         Start Time:           Instrument Settings         Search Unit         Call.         Time         Date           J.S175         Fange:         S939''         Freq: 5.0 MHZ         Styles:         COMP-Q           J.268         Pulser:         Square         Exam Angle:         45         Collanter Call.         NA           J.268         Pulser:         SQUARE         Massured Angle:         45         Couplant         Call.         Gall batch:         Gradu           J.269         Other:         PIW-100         Search Unit Cable         Mig::         SONOTRACE 40         Mig::         SONOTRACE 40           J.0         Circ. Galn (dB):         19.0         Seard Couple Addit         Call batch:         Gradu         Callibration Block         SonONTRACE 40         <td< td=""><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect.XI 99 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         T           ISM-991-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3'/10.99'           IsM-991-2/AFW-W171         Size/Length:         Size/Length:         3'/10.99'           None         Start Time:        
0810           USN 60 SW         Size:         0.25'         Shape:         ROUND           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Time:         0810           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Calibration         Inter. Cal.</td><td>Summary No.         K1.C5.81.170         Procedure Rev:         0         Report           Workscepe:         PSI         Work Order No:         07-009665         P           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:         TURBINE BUIL           ISIM-91-2         Description: 3" PIPE TO VALVE WELD         TURBINE BUIL         TURBINE BUIL           AFW - FROM AFW PUMPS 1A/18 AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Start Time:         0 810         ThicknessD           IsiM-91-2/AFW-W171         Start Time:         0810         Finiti         Start Time:         0810         Finiti           Nohe         Searah Unit         Scot138         Call.         Time: Call.         N/A         Axial Orientated 5           1288         PUBerr         Sayar         Frog:         5.0 MHZ         Sympe:         Reflector         Amplitude %,           1288         Puberr         Square         Exam. Angle:         45         Couplant         Call.         N/A           N/A         Mode:         Sard Chingh:         10.0         Signal         Signal         Reference/Simul           1288         Puber         Summary No:         Locado3         Log/de         Signal         Signal         N/A</td><td>Summary No:         K1.65.61.70         Procedure Rev:         0         Report No:         U           Workscoper         PSI         Work Order No:         07-038669         Page:         1           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X197 Thickness/Diameder:         Site/Langth:         3"/10.99"         Thickness/Diameder:           Isite/s1-2/AFW-W171         Start Time:         0510         Finish Time:           Instrument Settings         Search Unit         Cat.         Time:         Date           OE INSPECTION         Manufacturer:         KRAUTKRAMER         Instrument Settings         Size:         Cat.         MA           3.3775         Range:         5.0 MIZ         Signating:         Askit Orientated Search Unit         Cat.         MA         Catlibration         Askit Orientated Search Unit           Match High         Freq:         5.0 MIZ         Signating:         Signating:         Signating:         Signating:         Sig</td></td<></td></t<></td></td<></td></td<></td></t<> | Summary No.:         K1.C5.61.170           Workscope:         PSI           ASME Sect. XI 98 Ed/00 Add         Cat.           ISIM-891-2         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP I           ISIM-891-2/AFW-W171         None           None         Serial No.:           GE INSPECTION         Manufacturer:           USN 60 SW         Size:         0.25"           3.3775         Range:         .939"         Freq.:         5.0 MHZ           .1268         Pulser:         Square         Exam Angle:         4           500 ohms         Reject:         0%         Mode:         Mode:           N/A         Mode:         Fullwave         Wedge Style:         9           19.0         Circ. Gain (dB):         19.0         Serial         Serial           N/A         Mode:         Fullwave         Wedge Style:         9           19.0         Circ. Gain (dB):         19.0         Serial         Serial           N/A         Mode:         Fullwave         Wedge Style:         9           19.0         Circ. Gain (dB):         19.0         Serial         Serial           No.:         L-08-003         Length:         6' <td< td=""><td>Summary No.:         K1.C5.61.170           Workscope:         PSI           ASME Sect. XI 98 Ed/00 Add         Cat./Item:           ISIM-891-2         Descriptio           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PE         ISIM-891-2/AFW-W171           None         Instrument Settings         Search Unit           01R5NW         Serial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKR           USN 60 SW         Size:         0.25"         Shape:           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Style:           .1268         Pulser:         Square         Exam Angle:         45         of Eke           .1268         Pulser:         Square         Exam Angle:         44           N/A         Mode:         Fullwave         Wedge Style:         MSWC           .450         Other:         P/W-100         Search Unit Cable         No.Conn::           .10.:         L-08-003         Length:         6'         No.Conn::           .10.:         L-08-003         Scan Coverage         OW         Scan Coverage           .10.:         L-08-003         Scan Coverage         OW         <td< td=""><td>Summary No.:         K1.C5.61.170         Procedum           Workscope:         PSI         Work Ord           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Description: 3" PIPE TO           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None         Manufacturer:         KRAUTKRAMER           USN 60 SW         Sterial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           USN 60 SW         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq::         5.0 MHZ         Stape:         COMP-G           .1268         Pulser:         Square         Exam Angle:         45         # of Elements: Single           500 ohms         Reject:         0%         Mode:         SHEAR         Masured Angle:         45           N/A         Mode:         Fullwave         Wedge Style:         MSWQC         Vedge Style:         MSWQC           V/A         Mode:         19.0         Scon dB: 31.0         CCW Y</td><td>Summary No:         K1.C5.61.170         Procedure Rev.:           Workscope:         PSI         Work Order No::           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description:         3" PIPE TO VALVE WE           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None        </td><td>Summary No:         K1.C5.61.170         Procedure Rev:           Workscope:         PSI         Work Order No.:           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description: 3° PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           State         State         Scatas           01155/W         Serial No::         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           Instrument Settings         Size:         0.25"           USN 60 SW         Size:         0.25"           3.3775         Range:         939"           Freq.:         5.0 MHZ         Style:           Mode:         SHEAR         Could Inter. Cal.           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         SHEAR           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         State:           01her:         Off         Mode:           1288         Pulser:         SQuare           Soudhms         Freq.:         5.0 MHZ           Mages tyle:         MSWQC         <t< td=""><td>Summary No.:         K1.C5.51.170         Procedure Rev.:         0           Workscope:         PSI         Work Order No.:         07-009669           ASME Sect. XI 99 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:           ISIM-891-2         Description:         3" PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3           Instrument Settings         Search Unit         Sci2/Length:         3           One         Start         Sci18 No.:         SC0138         Initial Cal.         0700 4/25/2008           Instrument Settings         Serial No.:         SC0138         Initial Cal.         0701 4/25/2008           Instrument Settings         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Stort         Ontol 4/25/2008           Inter. Call         Pulser:         Stort         Stort         MAde:         MAde:         MAde:         MAde:           J268         Pulser:         Stort         Mcde:         Stort         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:</td><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:           ISIM-691-2         Description: 3' PIPE TO VALVE
WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E           ISIM-591-2/AFW-W171         Size/Length:         3'/10.99''           None         Start Time:         Start Time:           Instrument Settings         Search Unit         Call.         Time         Date           J.S175         Fange:         S939''         Freq: 5.0 MHZ         Styles:         COMP-Q           J.268         Pulser:         Square         Exam Angle:         45         Collanter Call.         NA           J.268         Pulser:         SQUARE         Massured Angle:         45         Couplant         Call.         Gall batch:         Gradu           J.269         Other:         PIW-100         Search Unit Cable         Mig::         SONOTRACE 40         Mig::         SONOTRACE 40           J.0         Circ. Galn (dB):         19.0         Seard Couple Addit         Call batch:         Gradu         Callibration Block         SonONTRACE 40         <td< td=""><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect.XI 99 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         T           ISM-991-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3'/10.99'           IsM-991-2/AFW-W171         Size/Length:         Size/Length:         3'/10.99'           None         Start Time:         0810           USN 60 SW         Size:         0.25'         Shape:         ROUND           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Time:         0810           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Calibration         Inter. Cal.</td><td>Summary No.         K1.C5.81.170         Procedure Rev:         0         Report           Workscepe:         PSI         Work Order No:         07-009665         P           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:         TURBINE BUIL           ISIM-91-2         Description: 3" PIPE TO VALVE WELD         TURBINE BUIL         TURBINE BUIL           AFW - FROM AFW PUMPS 1A/18 AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Start Time:         0 810         ThicknessD           IsiM-91-2/AFW-W171         Start Time:         0810         Finiti         Start Time:         0810         Finiti           Nohe         Searah Unit         Scot138         Call.         Time: Call.         N/A         Axial Orientated 5           1288         PUBerr         Sayar         Frog:         5.0 MHZ         Sympe:         Reflector         Amplitude %,           1288         Puberr         Square         Exam. Angle:         45         Couplant         Call.         N/A           N/A         Mode:         Sard Chingh:         10.0         Signal         Signal         Reference/Simul           1288         Puber         Summary No:         Locado3         Log/de         Signal         Signal         N/A</td><td>Summary No:         K1.65.61.70         Procedure Rev:         0         Report No:         U           Workscoper         PSI         Work Order No:         07-038669         Page:         1           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X197 Thickness/Diameder:         Site/Langth:         3"/10.99"         Thickness/Diameder:           Isite/s1-2/AFW-W171         Start Time:         0510         Finish Time:           Instrument Settings         Search Unit         Cat.         Time:         Date           OE INSPECTION         Manufacturer:         KRAUTKRAMER         Instrument Settings         Size:         Cat.         MA           3.3775         Range:         5.0 MIZ         Signating:         Askit Orientated Search Unit         Cat.         MA         Catlibration         Askit Orientated Search Unit           Match High         Freq:         5.0 MIZ         Signating:         Signating:         Signating:         Signating:         Sig</td></td<></td></t<></td></td<></td></td<> | Summary No.:         K1.C5.61.170           Workscope:         PSI           ASME Sect. XI 98 Ed/00 Add         Cat./Item:           ISIM-891-2         Descriptio           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PE         ISIM-891-2/AFW-W171           None         Instrument Settings         Search Unit           01R5NW         Serial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKR           USN 60 SW         Size:         0.25"         Shape:           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Style:           .1268         Pulser:         Square         Exam Angle:         45         of Eke           .1268         Pulser:         Square         Exam Angle:         44           N/A         Mode:         Fullwave         Wedge Style:         MSWC           .450         Other:         P/W-100         Search Unit Cable         No.Conn::           .10.:         L-08-003         Length:         6'         No.Conn::           .10.:         L-08-003         Scan Coverage         OW         Scan Coverage           .10.:         L-08-003         Scan Coverage         OW <td< td=""><td>Summary No.:         K1.C5.61.170         Procedum           Workscope:         PSI         Work Ord           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Description: 3" PIPE TO           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None         Manufacturer:         KRAUTKRAMER           USN 60 SW         Sterial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           USN 60 SW         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq::         5.0 MHZ         Stape:         COMP-G           .1268         Pulser:         Square         Exam Angle:         45         # of Elements: Single           500 ohms         Reject:         0%         Mode:         SHEAR         Masured Angle:         45           N/A         Mode:         Fullwave         Wedge Style:         MSWQC         Vedge Style:         MSWQC           V/A         Mode:         19.0         Scon dB: 31.0         CCW Y</td><td>Summary No:         K1.C5.61.170         Procedure Rev.:           Workscope:         PSI         Work Order No::           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description:         3" PIPE TO VALVE WE           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None        </td><td>Summary No:         K1.C5.61.170         Procedure Rev:           Workscope:         PSI         Work Order No.:           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description: 3° PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           State         State         Scatas           01155/W         Serial No::         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           Instrument Settings         Size:         0.25"           USN 60 SW         Size:         0.25"           3.3775         Range:         939"           Freq.:         5.0 MHZ         Style:           Mode:         SHEAR         Could Inter. Cal.           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         SHEAR           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         State:           01her:         Off         Mode:           1288         Pulser:         SQuare           Soudhms         Freq.:         5.0 MHZ           Mages tyle:         MSWQC         <t< td=""><td>Summary No.:         K1.C5.51.170         Procedure Rev.:         0           Workscope:         PSI         Work Order No.:         07-009669           ASME Sect. XI 99 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:           ISIM-891-2         Description:         3" PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3           Instrument Settings         Search Unit         Sci2/Length:         3           One         Start         Sci18 No.:         SC0138         Initial Cal.         0700 4/25/2008           Instrument Settings         Serial No.:         SC0138         Initial Cal.         0701 4/25/2008           Instrument Settings         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Stort         Ontol 4/25/2008           Inter. Call         Pulser:         Stort         Stort         MAde:         MAde:         MAde:         MAde:           J268         Pulser:         Stort         Mcde:         Stort         Made:         Made:         Made:         Made:   
     Made:         Made:         Made:         Made:         Made:</td><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:           ISIM-691-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E           ISIM-591-2/AFW-W171         Size/Length:         3'/10.99''           None         Start Time:         Start Time:           Instrument Settings         Search Unit         Call.         Time         Date           J.S175         Fange:         S939''         Freq: 5.0 MHZ         Styles:         COMP-Q           J.268         Pulser:         Square         Exam Angle:         45         Collanter Call.         NA           J.268         Pulser:         SQUARE         Massured Angle:         45         Couplant         Call.         Gall batch:         Gradu           J.269         Other:         PIW-100         Search Unit Cable         Mig::         SONOTRACE 40         Mig::         SONOTRACE 40           J.0         Circ. Galn (dB):         19.0         Seard Couple Addit         Call batch:         Gradu         Callibration Block         SonONTRACE 40         <td< td=""><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect.XI 99 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         T           ISM-991-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3'/10.99'           IsM-991-2/AFW-W171         Size/Length:         Size/Length:         3'/10.99'           None         Start Time:         0810           USN 60 SW         Size:         0.25'         Shape:         ROUND           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Time:         0810           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Calibration         Inter. Cal.</td><td>Summary No.         K1.C5.81.170         Procedure Rev:         0         Report           Workscepe:         PSI         Work Order No:         07-009665         P           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:         TURBINE BUIL           ISIM-91-2         Description: 3" PIPE TO VALVE WELD         TURBINE BUIL         TURBINE BUIL           AFW - FROM AFW PUMPS 1A/18 AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Start Time:         0 810         ThicknessD           IsiM-91-2/AFW-W171         Start Time:         0810         Finiti         Start Time:         0810         Finiti           Nohe         Searah Unit         Scot138         Call.         Time: Call.         N/A         Axial Orientated 5           1288         PUBerr         Sayar         Frog:         5.0 MHZ         Sympe:         Reflector         Amplitude %,           1288         Puberr         Square         Exam. Angle:         45         Couplant         Call.         N/A           N/A         Mode:         Sard Chingh:         10.0         Signal         Signal         Reference/Simul           1288         Puber         Summary No:         Locado3         Log/de         Signal         Signal         N/A</td><td>Summary No:         K1.65.61.70         Procedure Rev:         0         Report No:         U           Workscoper         PSI         Work Order No:         07-038669         Page:         1           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X197 Thickness/Diameder:         Site/Langth:         3"/10.99"         Thickness/Diameder:           Isite/s1-2/AFW-W171         Start Time:         0510         Finish Time:           Instrument Settings         Search Unit         Cat.         Time:         Date           OE INSPECTION         Manufacturer:         KRAUTKRAMER         Instrument Settings         Size:         Cat.         MA           3.3775         Range:         5.0 MIZ         Signating:         Askit Orientated Search Unit         Cat.         MA         Catlibration         Askit Orientated Search Unit           Match High         Freq:         5.0 MIZ         Signating:         Signating:         Signating:         Signating:         Sig</td></td<></td></t<></td></td<> | Summary No.:         K1.C5.61.170         Procedum           Workscope:         PSI         Work Ord           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.0           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Description: 3" PIPE TO           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None         Manufacturer:         KRAUTKRAMER           USN 60 SW         Sterial No.:         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           USN 60 SW         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq::         5.0 MHZ         Stape:         COMP-G           .1268         Pulser:         Square         Exam Angle:         45         # of Elements: Single           500 ohms         Reject:         0%         Mode:         SHEAR         Masured Angle:         45           N/A         Mode:         Fullwave         Wedge Style:         MSWQC         Vedge Style:         MSWQC           V/A         Mode:         19.0         Scon dB: 31.0         CCW Y | Summary No:         K1.C5.61.170         Procedure Rev.:           Workscope:         PSI         Work Order No::           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description:         3" PIPE TO VALVE WE           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           None | Summary No:         K1.C5.61.170         Procedure Rev:           Workscope:         PSI         Work Order No.:           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61           ISIM-891-2         Description: 3° PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         ISIM-891-2/AFW-W171           State         State         Scatas           01155/W         Serial No::         SC0138           GE INSPECTION         Manufacturer:         KRAUTKRAMER           Instrument Settings         Size:         0.25"           USN 60 SW         Size:         0.25"           3.3775         Range:         939"           Freq.:         5.0 MHZ         Style:           Mode:         SHEAR         Could Inter. Cal.           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         SHEAR           Auto-High         Freq.:         5.0 MHZ           MA         Mode:         State:           01her:         Off         Mode:           1288         Pulser:         SQuare           Soudhms         Freq.:         5.0 MHZ           Mages tyle:         MSWQC <t< td=""><td>Summary No.:         K1.C5.51.170         Procedure Rev.:         0           Workscope:         PSI         Work Order No.:         07-009669           ASME Sect. XI 99 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:           ISIM-891-2         Description:         3" PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3           Instrument Settings         Search Unit         Sci2/Length:         3           One         Start         Sci18 No.:         SC0138         Initial Cal.         0700 4/25/2008           Instrument Settings         Serial No.:         SC0138         Initial Cal.         0701 4/25/2008           Instrument Settings         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Stort         Ontol 4/25/2008           Inter. Call         Pulser:         Stort         Stort         MAde:         MAde:         MAde:         MAde:           J268         Pulser:         Stort         Mcde:         Stort         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:</td><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:           ISIM-691-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E           ISIM-591-2/AFW-W171         Size/Length:         3'/10.99''           None         Start Time:         Start Time:           Instrument Settings         Search Unit         Call.         Time         Date           J.S175         Fange:         S939''         Freq: 5.0 MHZ         Styles:         COMP-Q           J.268         Pulser:         Square         Exam Angle:         45        
Collanter Call.         NA           J.268         Pulser:         SQUARE         Massured Angle:         45         Couplant         Call.         Gall batch:         Gradu           J.269         Other:         PIW-100         Search Unit Cable         Mig::         SONOTRACE 40         Mig::         SONOTRACE 40           J.0         Circ. Galn (dB):         19.0         Seard Couple Addit         Call batch:         Gradu         Callibration Block         SonONTRACE 40         <td< td=""><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect.XI 99 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         T           ISM-991-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3'/10.99'           IsM-991-2/AFW-W171         Size/Length:         Size/Length:         3'/10.99'           None         Start Time:         0810           USN 60 SW         Size:         0.25'         Shape:         ROUND           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Time:         0810           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Calibration         Inter. Cal.</td><td>Summary No.         K1.C5.81.170         Procedure Rev:         0         Report           Workscepe:         PSI         Work Order No:         07-009665         P           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:         TURBINE BUIL           ISIM-91-2         Description: 3" PIPE TO VALVE WELD         TURBINE BUIL         TURBINE BUIL           AFW - FROM AFW PUMPS 1A/18 AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Start Time:         0 810         ThicknessD           IsiM-91-2/AFW-W171         Start Time:         0810         Finiti         Start Time:         0810         Finiti           Nohe         Searah Unit         Scot138         Call.         Time: Call.         N/A         Axial Orientated 5           1288         PUBerr         Sayar         Frog:         5.0 MHZ         Sympe:         Reflector         Amplitude %,           1288         Puberr         Square         Exam. Angle:         45         Couplant         Call.         N/A           N/A         Mode:         Sard Chingh:         10.0         Signal         Signal         Reference/Simul           1288         Puber         Summary No:         Locado3         Log/de         Signal         Signal         N/A</td><td>Summary No:         K1.65.61.70         Procedure Rev:         0         Report No:         U           Workscoper         PSI         Work Order No:         07-038669         Page:         1           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X197 Thickness/Diameder:         Site/Langth:         3"/10.99"         Thickness/Diameder:           Isite/s1-2/AFW-W171         Start Time:         0510         Finish Time:           Instrument Settings         Search Unit         Cat.         Time:         Date           OE INSPECTION         Manufacturer:         KRAUTKRAMER         Instrument Settings         Size:         Cat.         MA           3.3775         Range:         5.0 MIZ         Signating:         Askit Orientated Search Unit         Cat.         MA         Catlibration         Askit Orientated Search Unit           Match High         Freq:         5.0 MIZ         Signating:         Signating:         Signating:         Signating:         Sig</td></td<></td></t<> | Summary No.:         K1.C5.51.170         Procedure Rev.:         0           Workscope:         PSI         Work Order No.:         07-009669           ASME Sect. XI 99 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:           ISIM-891-2         Description:         3" PIPE TO VALVE WELD           AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3           Instrument Settings         Search Unit         Sci2/Length:         3           One         Start         Sci18 No.:         SC0138         Initial Cal.         0700 4/25/2008           Instrument Settings         Serial No.:         SC0138         Initial Cal.         0701 4/25/2008           Instrument Settings         Size:         0.25"         Shape:         ROUND           3.3775         Range:         .939"         Freq.:         5.0 MHZ         Stort         Ontol 4/25/2008           Inter. Call         Pulser:         Stort         Stort         MAde:         MAde:         MAde:         MAde:           J268         Pulser:         Stort         Mcde:         Stort         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made:         Made: | Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect. XI 98 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:           ISIM-691-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E           ISIM-591-2/AFW-W171         Size/Length:         3'/10.99''           None         Start Time:         Start Time:           Instrument Settings         Search Unit         Call.         Time         Date           J.S175         Fange:         S939''         Freq: 5.0 MHZ         Styles:         COMP-Q           J.268         Pulser:         Square         Exam Angle:         45         Collanter Call.         NA           J.268         Pulser:         SQUARE         Massured Angle:         45         Couplant         Call.         Gall batch:         Gradu           J.269         Other:         PIW-100         Search Unit Cable         Mig::         SONOTRACE 40         Mig::         SONOTRACE 40           J.0         Circ. Galn (dB):         19.0         Seard Couple Addit         Call batch:         Gradu         Callibration Block         SonONTRACE 40 <td< td=""><td>Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect.XI 99 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         T           ISM-991-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3'/10.99'           IsM-991-2/AFW-W171         Size/Length:         Size/Length:         3'/10.99'           None         Start Time:         0810           USN 60 SW         Size:         0.25'         Shape:         ROUND           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Time:         0810           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Calibration         Inter. Cal.</td><td>Summary No.         K1.C5.81.170         Procedure Rev:         0         Report           Workscepe:         PSI         Work Order No:         07-009665         P           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:         TURBINE BUIL           ISIM-91-2         Description: 3" PIPE TO VALVE WELD         TURBINE BUIL         TURBINE BUIL           AFW - FROM AFW PUMPS 1A/18 AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Start Time:         0 810         ThicknessD           IsiM-91-2/AFW-W171         Start Time:         0810         Finiti         Start Time:         0810         Finiti           Nohe         Searah Unit         Scot138         Call.         Time: Call.         N/A         Axial Orientated 5           1288         PUBerr         Sayar         Frog:         5.0 MHZ         Sympe:         Reflector         Amplitude %,           1288         Puberr         Square         Exam. Angle:         45         Couplant         Call.         N/A           N/A         Mode:         Sard Chingh:         10.0         Signal         Signal         Reference/Simul           1288         Puber         Summary No:         Locado3         Log/de         Signal         Signal         N/A</td><td>Summary No:         K1.65.61.70         Procedure Rev:         0         Report No:         U           Workscoper         PSI         Work Order No:         07-038669         Page:         1           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X197 Thickness/Diameder:         Site/Langth:       
 3"/10.99"         Thickness/Diameder:           Isite/s1-2/AFW-W171         Start Time:         0510         Finish Time:           Instrument Settings         Search Unit         Cat.         Time:         Date           OE INSPECTION         Manufacturer:         KRAUTKRAMER         Instrument Settings         Size:         Cat.         MA           3.3775         Range:         5.0 MIZ         Signating:         Askit Orientated Search Unit         Cat.         MA         Catlibration         Askit Orientated Search Unit           Match High         Freq:         5.0 MIZ         Signating:         Signating:         Signating:         Signating:         Sig</td></td<> | Summary No:         K1.C5.61.170         Procedure Rev:         0           Workscope:         PSI         Work Order No:         07-009669           ASME Sect.XI 99 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         T           ISM-991-2         Description: 3' PIPE TO VALVE WELD         AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E         Size/Length:         3'/10.99'           IsM-991-2/AFW-W171         Size/Length:         Size/Length:         3'/10.99'           None         Start Time:         0810           USN 60 SW         Size:         0.25'         Shape:         ROUND           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Time:         0810           3.3775         Range:         939'         Freq:         5.0 MHZ         Style:         Coll         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Reflector         Inter. Cal.         NA         Calibration         Calibration         Inter. Cal. | Summary No.         K1.C5.81.170         Procedure Rev:         0         Report           Workscepe:         PSI         Work Order No:         07-009665         P           ASME Sect. XI 98 Ed/00 Add         Cat./Item:         C-F-2/C5.61         Location:         TURBINE BUIL           ISIM-91-2         Description: 3" PIPE TO VALVE WELD         TURBINE BUIL         TURBINE BUIL           AFW - FROM AFW PUMPS 1A/18 AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Start Time:         0 810         ThicknessD           IsiM-91-2/AFW-W171         Start Time:         0810         Finiti         Start Time:         0810         Finiti           Nohe         Searah Unit         Scot138         Call.         Time: Call.         N/A         Axial Orientated 5           1288         PUBerr         Sayar         Frog:         5.0 MHZ         Sympe:         Reflector         Amplitude %,           1288         Puberr         Square         Exam. Angle:         45         Couplant         Call.         N/A           N/A         Mode:         Sard Chingh:         10.0         Signal         Signal         Reference/Simul           1288         Puber         Summary No:         Locado3         Log/de         Signal         Signal         N/A | Summary No:         K1.65.61.70         Procedure Rev:         0         Report No:         U           Workscoper         PSI         Work Order No:         07-038669         Page:         1           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X198 Ed/00 Add         Cat/Item:         C-F-2/C5.61         Location:         TURBINE BUILDING           ASME Sect. X197 Thickness/Diameder:         Site/Langth:         3"/10.99"         Thickness/Diameder:           Isite/s1-2/AFW-W171         Start Time:         0510         Finish Time:           Instrument Settings         Search Unit         Cat.         Time:         Date           OE INSPECTION         Manufacturer:         KRAUTKRAMER         Instrument Settings         Size:         Cat.         MA           3.3775         Range:         5.0 MIZ         Signating:         Askit Orientated Search Unit         Cat.         MA         Catlibration         Askit Orientated Search Unit           Match High         Freq:         5.0 MIZ         Signating:         Signating:         Signating:         Signating:         Sig |

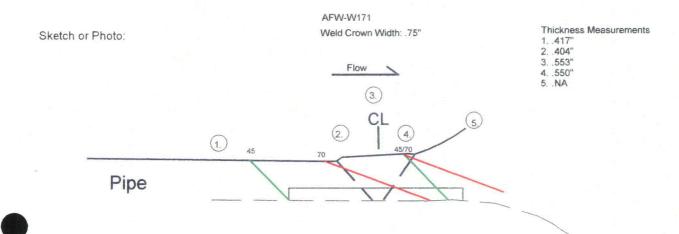
					0.0	unbrut									
<b>M<sup>er</sup> Comi</b>	20.00.000	Site/Unit:	KPS	/ 1				rocedure:	ER-AA-	NDE-UT-80	1 Rev. 0		Outage	<del>- · · · · · · · · · · · · · · · · · · ·</del>	K1R29
		nary No.:	K <sup>-</sup>	1.C5.61.170				lure Rev.:		0		_	Report		T-08-224
		orkscope:		PSI			Work C	Order No.:		07-009669		_	P	Page: 1	of <u>1</u>
Code:	ASM	AE Sect. X	98 Ed/00 Add		Cat./Ite	em:	C-F-2/0	5.61	_	Location:		T	URBINE BUIL	DING	
Drawing No.:			ISIM-891-2		_	Descriptio	on: 3" PIPE	TO VALVE WE	LD	_					
System ID:	AFW - FRO	M AFW PU	IMPS 1A/1B AND	TURB. DRIVEN	PUMP DIS	SCH. TO PE	EN. 46E								
Component ID:	ISIM-891-2/	/AFW-W17 <sup>.</sup>	1						Size/	Length:	3"/10.99"		Thickness/D	iameter: (	0.438"/3.5"
Limitations:	None									Sta	art Time:	1230	Finis	sh Time:	1239
·····	Instrume	ent Setting:	s		Sea	rch Unit			1						
Serial No.:		01R5N		Serial No.:		SC013	8	Cal. Checks	Time	Date			I Orientated		
Manufacturer:	<u></u>	GE INSPE	CTION	Manufactur	er:	KRAUTK		Initial Cal.	0710	4/25/2008	Calib Refl		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	sw	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1230	4/25/2008		otch	80%	4.8	.828"
Delay:	4.9966	Range:	1.2"	Freq.: 5	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle	e: <u>60</u>	# of El	ements: Sin	gle Inter. Cal. Final Cal.	N/A 1400	4/25/2008	,				
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR					ม <b>่</b>				
Rep. Rate:	Auto High	Freq.:	5.0 MHZ	Measured A	·		9		Couplar			L		<u> </u>	<u> </u>
Filter:	N/A 450	Mode: Other:	Fullwave P/W-100	Wedge Styl	le;	MSWO	20	Cal. Batch:		07143	-		rential Orient	·	Unit
Voltage: Ax. Gain (dB):	35.0	Circ. Gair			Soaroh	Unit Cable		· · ·		RACE 40 ECH INC.	- Calib Refle		Signal Amplitude %	Sweep Division	Sound Path
10 Screen E		- in. of	Sound Path	Туре:		to MCD: F					N	/A			1
				Length:		No. Conn.:	0	Exam Batch Turner		07143	-				
Linearity Report			08-003		Scan	Coverage				RACE 40 ECH INC.	-				
		tion Block	50	Upstream [		-	can dB: N/	· · · · ·			-				
Cal. Block No.:		WPS-		CW			Scan dB: 41	- Rei	erence l	Block	0.1	Ref	erence/Simu	1	
Thickness:	0.438"	Dia.: p. Tool:	3"			0		Serial No.:	<u> </u>	MT-111	_ Gain	Reflecto	Signal r Amplitude 9	Sweep % Division	Sound Path
Cal. Blk. Temp. Comp. Temp.:	.: <u>70</u> Temp <b>75</b> Temp	·	259564	Exam Surfa Surface Co			TOPPED	Туре:	RON	IPAS	35.0	.7" SDH	40%	8.3	1.456"
Recordable Inc		P. 1001. Yes	<u> </u>	(If Yes, Ref. A	· -								- <b> </b>		
				•		trasonic inu	ication nepu	n.)			L				
Results:	Accept 🖌	Reje	ct 🗌	Info 📋					Co				an in the circ d when skew		
Percent Of Cov	/erage Obtaine	d > 90%:	No	Reviewed I	Previous Da	ata:	N/A				nformed w	-			
Examiner	Level	<u> </u>		Signature			Date Re	viewer				7 Signat	ure	· · ·	Date
Pollock, Norm	nan E.		Namar	Paller		4/2	5/2008 J	oremy i	Timm		Int	Æ	80	57	13/08
Examiner	Level	A/A		Signature			1	e Review <sup>I</sup>			5	Signat			Date
N/A								ILIPE. B	ukes		Phil	pp CT	Sula	May	13,2008
Other	Level	N/A		Signature				III Review	~		$\frown$	Signat	ure	<i>U</i>	Date
N/A	·····		<u> </u>					Jumes Wik	JIEme	<u> </u>	- Jun	und	iemery	/3m/	4418

	inion <sup>(</sup>	Site/Unit:	KPS	/ 1		Pro	ocedure:	ER-AA-	NDE-UT-801	Rev. 0		Outage	No.:	K1R29
		nary No.:	K1.	C5.61.170		Procedu	ire Rev.:		0			Report	No.: U	T-08-225
	Wo	rkscope:		PSI		Work Or	der No.:		07-009669		-	F	Page: 1	of <b>1</b>
Code:	ASM	IE Sect. X	l 98 Ed/00 Add		Cat./Item:	C-F-2/C	5.61		Location:		 τι	IRBINE BUIL	.DING	
Drawing No.:			ISIM-891-2		Descriptio	on: 3" PIPE T	O VALVE WE	LD				<u> </u>		······································
System ID:	AFW - FRO	M AFW PL	JMPS 1A/1B AND	TURB. DRIVEN PUN	P DISCH. TO PI	EN. 46E								
Component ID:	: ISIM-891-2/	AFW-W17	1	<u> </u>				Size/	Length:	3"/10.99"		Thickness/D	iameter:	0.438"/3.5"
Limitations:	None				·		·····		Star	t Time:	1630	Finis	sh Time:	1639
					O									
Contal No. 1	Instrume	nt Setting 01R5N			Search Unit	_	Cal. Checks	Time	Date	_	Axia	Orientated	Search Unit	
Serial No.: Manufacturer:		GE INSPE		Serial No.: Manufacturer:	SC024 KRAUTKI		- Initial Cal.	0720	4/25/2008	Calib Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:	<u></u>	USN 60			· · · · · · · · · · · · · · · · · · ·	ROUND	- Inter. Cal.	1630	4/25/2008	IDN		80%	5.0	1.412"
Delay:	6.6259	Range:	1.94"	Freq.: 5.0 MI	· -	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	<b>70</b> # of El	ements: Sing		N/A						
Damping:	500 ohms	Reject:	0%	Mode:	SHEAR		Final Cal.	1750	4/25/2008					
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured Angle:		59		Couplar	nt	ļ				<u> </u>
Filter:	N/A	Mode:	Fullwave	Wedge Style:	MSW	ac	Cal. Batch:		07143		Circumfe	rential Orient	ated Search	Unit
Voltage:	450	Other:	P/W-100				· · · · · · · · · · · · · · · · · · ·		RACE 40	Calib		Signal Amplitude %	Sweep	Sound Path
Ax. Gain (dB):	42.2	Circ. Gaii	· · ·		earch Unit Cable		Mfg.:	SONOTE	ECH INC.	Refle			Division	
Screen [	Div. = <b>1.94</b>	in. of	Sound Path	Туре:	BNC to MCD: F	_	Exam Batc	h:	07143	. N/	A			
Linearity Repor	rt No.:	L-0	08-003	Length: 6'	No. Conn.:	0		SONOTI	RACE 40					
	Calibrat	ion Block		(	Scan Coverage		Mfg.:	SONOTE	CH INC.					
Cal. Block No.:		WPS-	•59	Upstream 🖌 D	ownstream 🖌 S	Scan dB: 48.2	2 — Ref	ierence l	Block		Ref	erence/Simu	ator Block	
Thickness:	0.438"	Dia.:	3"	cw []	ccw 🗌 🥴	Scan dB: N/A	Serial No.:	L	MT-111	Gain dB	Reflector	Signal Amplitude	Sweep % Division	Sound Path
Cal. Blk. Temp.	.: <u>70</u> Temp	o. Tool:	259564	Exam Surface:	0	D	_ Туре:	RON	IPAS	38.2	.3" SDH	48%	3.4	.975"
Comp. Temp.:	<b>75</b> Temp	D. Tool:	259564	Surface Condition	n: FLAT	TOPPED	_			·				
Recordable in	ndication(s):	Yes	□ No 🖌	(If Yes, Ref. Attach	ed Ultrasonic Ind	ication Report	.)				l			
Results:	Accept 🖌	Reje	ect	Info 📋				Co				ital 70 deg so		
Percent Of Cov	verage Obtaine	d > 90%:	No	Reviewed Previo	ous Data:	N/A				eld.	le to weld	crown config	juration. Ris	sk informed
Examiner	Level		······································	Signature	<u> </u>	1	iewer				Signat	we	· · · ·	Date
Pollock, Norm	man E.		nom	n Paller	4/2	<u>کے 5/2008</u>	Gemy	Tinm		h	lat.	5	5/1	3/08
Examiner	Level	1/A		Signature		1	Review			01	Signat			Date
N/A							ILL E BI	Lkes		Phil		Bukes	May 13-	
Other	Level	¶⁄A		Signature			l Review	r			Signat	enu		Date
N/A		· · · · · · · · · · · · · · · · · · ·				·	Jamesu	IN Lew	iery >	-)an	uun (	imery	1.30001	18

# **Supplemental Report**

	Domin	nion					Report No.:	UT	-08-	223
A							Page:		of	
7	Summary No.:	KI. C5.61.170					1 nn			
	Examiner:	Pollock, Norman E. Colle	Level:	I	Reviewer: Joemy					
	Examiner:	N/A	Level:	N/A	Site Review: Phillip E	Bukes	Phillip C Bukes	Date:	May1:	3, 2008
	Other:	N/A	Level	NIA	ANII Review: Jameswin	Juemen	Junes Wiemer	Date:	13m	AYOZ

Comments: COVERAGE PLOT



Total Risk Informed Examination Volume = .2457 Sq. Inches

Axial Examination Coverage Upstream 100% 45 & 70 degree \* 45 & 70 Degree Scans were also performed on flat top weld.

Axial Examination Coverage Downstream 100% 45 & 70 Degree \* 45 & 70 Degree Scans were Also Performed on Flat top weld.

Circ Examination Coverage Downstream 40% With 45 degree and Supplemented by 60 degree skew scans Clockwise and Counter Clockwise \* 45 and 60 degree Scans were also performed on flat top weld Total Area of Coverage Achieved .049 Sq. Inches Total Risk Informed Examination Volume .1223 Sq. Inches

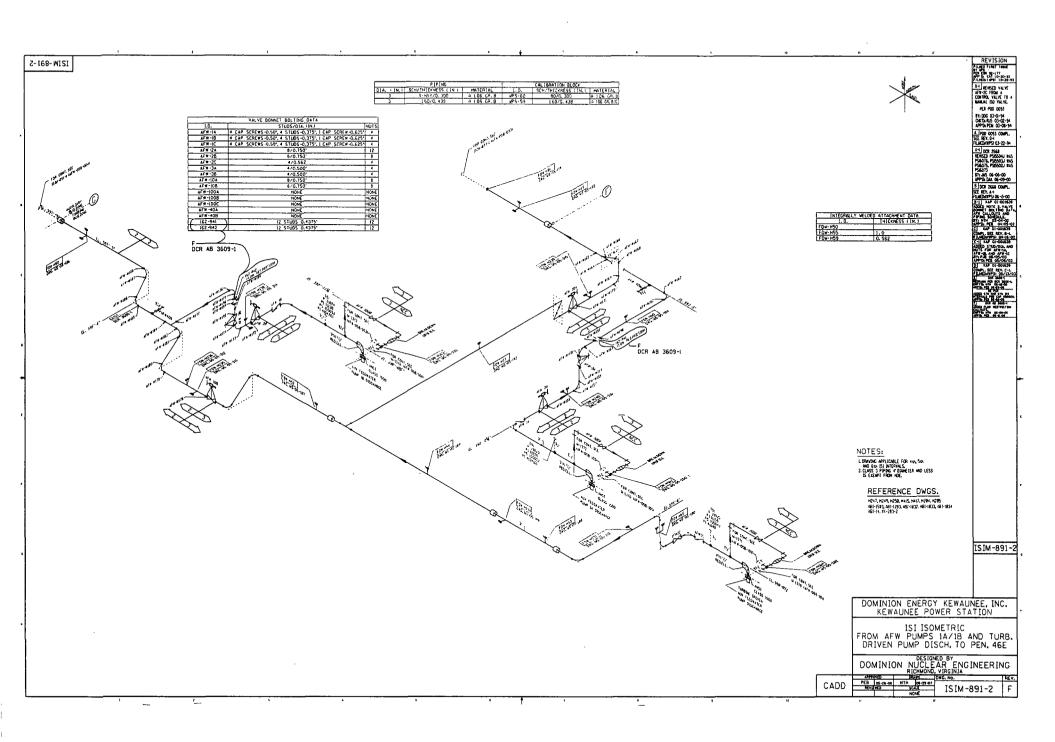
#### 

Examination Volume Dimensions = Height 0.10" Length 11.0" Width 1.75"

Axial Upstream 100% Axial Downstream 100% Circ Upsteam 100% Circ Downstream 40%

Achieved 85% Risk Informed Examination Coverage

Circ Examination Coverage Upstream 100% With 45 degree and Supplemented by 60 degree skew scans Clockwise and Counter Clockwise \* 45 and 60 degree Scans were also performed on flat top weld



# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-26

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

## 1. ASME Code Component Affected:

3" Auxiliary Feedwater Circumferential Weld AFW-W172 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

# 4. Impracticality of Compliance:

37.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W172 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 37.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W172 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W172 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice Inspection examinations, if required, will be performed by the Radiography Method

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# **RELIEF REQUEST NO: RR-G-5-26**

to achieve required examination volume.

- 7. Duration of Proposed Alternative:
  4th Ten-Year Interval June 16, 2004 June 16, 2014
- 8. Precedents: Not Applicable

# 9. References:

Not Applicable

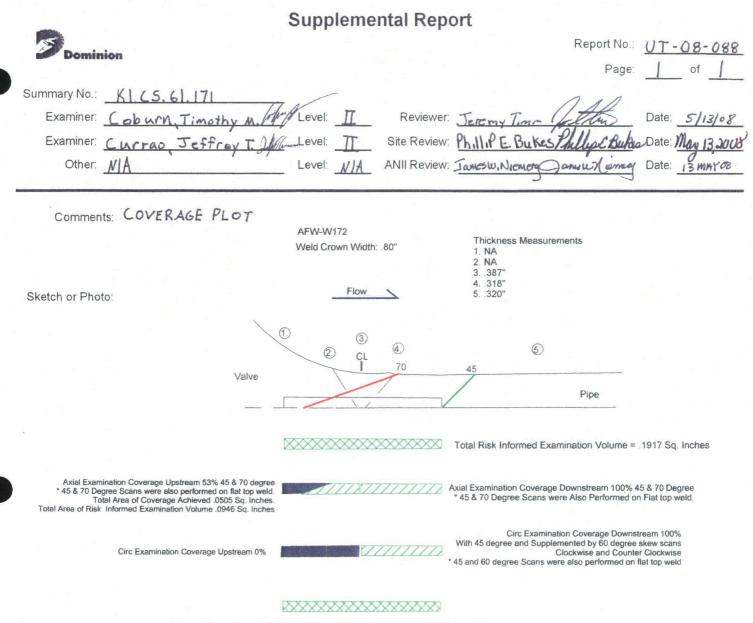
.....

				U			mado							
<b>Sil</b> Domi	nion <sup>:</sup>	Site/Unit:	KPS	/ 1		Proc	edure:	ER-AA-	NDE-UT-801	Rev. O	_	Outage N	No.:	K1R29
	Sum	nary No.:	K1	.C5.61.171		Procedure	Rev.:		0		_	Report N	No.: U	T-08-088
	Wa	orkscope:		PSI		Work Orde	er No.:		07-009669		-	Pa	.ge: 1	of <b>1</b>
Code:	ASM	AE Sect. X	98 Ed/00 Add		Cat./Item:	C-F-2/C5.6	51		Location:		TU	RBINE BUILD	DING	
Drawing No.:			ISIM-891-2		Descripti	on: 3" VALVE	O PIPE WE	LD						
System ID:	AFW - FRO	M AFW PU	IMPS 1A/1B AND	TURB. DRIVEN PUN	AP DISCH. TO PI	EN. 46E	· · · · ·							
Component ID:	ISIM-891-2/	AFW-W172	2			·····	······································	Size/	_ength:	3"/10.99"		Thickness/Dia	ameter:	0.300"/3.5"
Limitations:	NONE								Start	Time:	1400	Finist	n Time:	1410
	 Instrume	ent Setting	s		Search Unit					<u> </u>				
Serial No.:		01R5N		Serial No.:	SC013	8	Cal. Checks	Time	Date			Orientated S		T
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRAUTK	RAMER	Initial Cal.	1345	4/12/2008	Calibr Refle		Signal mplitude %	Sweep Division	Sound Path
Model:	<u></u>	USN 60	SW	Size: 0.25	" Shape:	ROUND	Inter. Cal.	1359	4/12/2008	ID NO	тсн	80%	5.0	.461"
Delay:	3.3775	Range:	.94"	Freq.: 5.0 M	HZ Style:	COMP-G	Inter. Cal. Inter, Cal.	N/A N/A						
M'tl Cal/Vel:	.1268"	Pulser:	SQUARE 0%	Exam Angle:		lements: Single	Final Cal.	1500	4/12/2008					
· · · _	500 OHMS	Reject: Freq.:	5.0 MHZ	Mode: Measured Angle	SHEAR	45		Couplar						
Filter:	N/A	- Mode: -	FULLWAVE	Wedge Style:	 MSW		Cal. Batch:	•	07143	}	 Circumfer	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100				Туре:	SONOTE	RACE 40	Calibr	ation	Signal	Sweep	
Ax. Gain (dB):	19.0	Circ. Gair	n (dB): <b>19.0</b>	s	earch Unit Cable	e	Mfg.:	SONOTE	CH INC.	Refle	ector A	mplitude %	Division	Sound Path
10 Screen Di	iv. = <b>.94</b>	in. of	Sound Path	Туре:	BNC to MCD: I	RG-174	Exam Batcl	n:	07143	N/	A	· · · · · ·		
Linearity Report	No.:	L-0	8-003	Length: 6'	No. Conn.:	0	Type:	SONOTE	RACE 40	<b> </b>				
	Calibrat	tion Block			Scan Coverage		Mfg.:	SONOTE	CH INC.				······	
Cal. Block No.:		WPS-	60	Upstream D	Downstream 🖌 🖇	Scan dB:	Ref	erence E	Block		Refe	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	cw 🔽	ccw 🔽 🥴	Scan dB: <b>31</b>	Serial No.:		MT-111	Gain	<b>D</b> (1 )	Signal	Sweep	Sound Path
Cal. Blk, Temp.:	68 Tem	p. Tool:	257117	Exam Surface:	0	D	Type:		IPAS	dB 25.0	Reflector .3" SDH	Amplitude %	Division 4.8	.452"
Comp. Temp.:	<b>70</b> Tem	p. Tool:	257117	Surface Conditio	n: FLAT	TOPPED				20.0	.0 0011		4.0	
Recordable Ind	lication(s):	Yes	No 🗹	(If Yes, Ref. Attach	ned Ultrasonic Inc	lication Report.)								
Results:	Accept 🖌	Reje	ct	Info	med weld			Co				plemented by tal 70 deg ax		
Percent Of Cove	erage Obtaine	d > 90%:	<u> </u>	Reviewed Previo		N/A						d exam prior		
Examiner	Level 1	1 1	A	Signature		Date Review	ver				Signatu	HDS.		Date
Coburn, Timot		19	# <i>[[/</i>	<u></u>	4/1	2/2008 Jere	emy Tim.	<u>~</u>			the		5/13	108
Examiner	Level 1	1 2	Infil	Signature		Date Site R				Ð.			144	Date
Currao, Jeffrey Oiltar		<u>1-4</u>	Nam	Signature			HIP E.F	suke	<u>s</u>	The	<u>llip []</u>	Butes	May 13,	
NA	Level 1	N/A		Signature			ames W:	Alion -		) ana	Signatu		I SMAYO	Date
					·····		umes wi	VIEME			<u> </u>	-7		<u>`</u>

<b>Se </b> Domi	nion	Site/Unit:	KPS	/ 1			Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0	_	Outage I	No.:	K1R29
	Sur	nmary No.:	K1	.C5.61.171			Procedure	Rev.:		0		_	Report I	No.: <u>U</u>	T-08-089
	v	Vorkscope:		PSI			Work Orde	er No.:		07-009669		_	Pa	age: 1	of 1
Code:	A	SME Sect. X	(  98 Ed/00 Add		Cat./Ite	em;	C-F-2/C5.6	51	_	Location:		TU	RBINE BUILI	DING	
Drawing No.:	<u> </u>	·	ISIM-891-2			Description:	3" VALVE T	O PIPE WE	LD		<u></u>				
System ID:	AFW - FR	OM AFW PU	JMPS 1A/1B AND	TURB. DRIVEN P	UMP DIS	CH. TO PEN	46E							_	
Component ID:	ISIM-891-	2/AFW-W17	2						Size/	_ength:	3"/10.99"		Thickness/Di	ameter:	).300"/3.5"
Limitations:	None									Star	t Time:	1411	Finis	n Time:	1419
	Instrun	nent Setting	s		Sear	ch Unit		Cal.		Dete	]	Avial	Orientated S	earch Unit	
Serial No.:		01R5	NW	Serial No.:		SC0138		Checks	Time	Date	Calibr		Signal	Sweep	
Manufacturer:	<u> </u>	GE INSPE	CTION	Manufacturer		KRAUTKRA	MER	Initial Cal.	1346	4/12/2008	Refle		mplitude %	Division	Sound Path
Model:		USN 60		Size:0	.25"	Shape:	ROUND	Inter. Cal.	1411	4/12/2008	ID No	otch	80%	5.0	.600"
Delay:	4.9966	_ Range:	1.2"	Freq.:5.0	MHZ	Style:	COMP-G	Inter. Cal. Inter. Cal.	N/A		{				
M'tl Cal/Vel:	.1268"	- Pulser:	Square	Exam Angle:	60	-	ents: Single	Final Cal.	1501	4/12/2008	1			· · · · · · · ·	
Damping:	500 OHMS	Reject:	0% 5 0 MUZ	Mode:		SHEAR		L	Couplar	·	·				
Rep. Rate:	Auto High N/A	<sup>Freq.:</sup> _ Mode:	5.0 MHZ Fullwave	Measured An	·	59 MSWQC		Cal. Batch:	•	n 07143	· · · · · ·	Circumfor	ential Orienta	tod Soarch	l Init
Voltage:	450	- Other:	P/W-100	Wedge Style:	<u></u> ,					RACE 40	- Calibr				
Ax. Gain (dB):	32.5	– – Circ. Gai	n (dB): N/A	_	Search	Unit Cable		· · · · · · · · · · · · · · · · · · ·		CH INC.	- Refle		Signal	Sweep Division	Sound Path
10 Screen D	iv = 1.2	 in. of	Sound Path	— Туре:		to MCD: RG	-174	·•			N/	A			
			08-003	Length:	6' 1	No. Conn.:	0	Exam Batch Type:		07143	-				
Linearity Report					Scan (	 Coverage					•				
Cal Diasta Nati	Calibr	ation Block WPS		Upstream 🗍		ream ∏ Sca	n dB·N/A	·							
Cal. Block No.:	0.300"	Dia.:	-00	CW 🔽			un dB: 44.5	Ref	erence l		Gain	Refe	Signal	Sweep	
Cal. Blk. Temp.:			257117	Exam Surface		OD		Serial No.:		MT-111	dB	Reflector	-		Sound Path
Comp. Temp.:		mp. Tool:	257117	Surface Conc		FLAT TO		Туре:	RON	IPAS	32.5	.3" SDH	70%	5.0	.605"
Recordable Inc		Yes		(If Yes, Ref. Att											
	.,								0						
Results:	Accept 🖌	у кеје	ect	Info Risk inf	formed w	eld.			Ca				an in the circ wed towards		
Percent Of Cove	erage Obtair	ned > 90%:	<u>No</u>	Reviewed Pr	evious Da	ta:	N/A			S	ingle sided	l exam prie	or to support	installation	
Examiner	Level	11	1. 1 -	Signature			Date Review	ver		·		Signatu	Ire		Date
Coburn, Timo	thy M.	M	In/			4/12/2	2008 Jar	smy Tin	nm			, lea	5	5/13	108
Examiner	Level	Н	140	Signature			Date Site R	eview		-		Signati		- 01	Date
Currao, Jeffre		<u>/</u> .	fff am			4/12/2		PE.BI	LKes		The	lipl	Bukes	Tllay 13	2008
Other	Level	N/A		Signature			Date ANII R					Signatu	ire Miril	0.	Date
N/A						·		Tames W.A	Jremer	9 _	Jane	wr a	mery	13444	45

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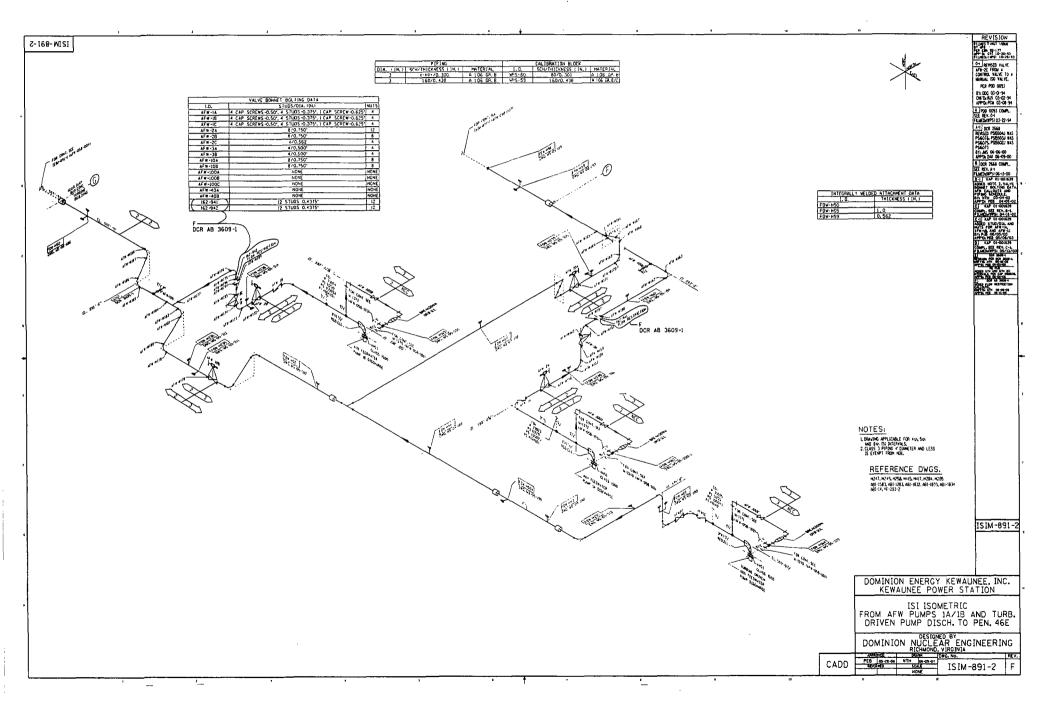
						andrac			••						
<b>M</b> Domi	inion	Site/Unit:	KPS	1	1	-	Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage I	No.:	K1R29
	Sum	nmary No.:	K1	.C5.61.171		_	Procedure	Rev.:		0 、		_	Report I	No.: L	T-08-090
	W	orkscope:		PSI		_	Work Orde	er No.:		07-009669		_	Pa	ige: 1	of <b>1</b>
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat./I	tem:	C-F-2/C5.6	1	_	Location:		τυ	RBINE BUILD	DING	
Drawing No.:			ISIM-891-2			Descriptio	n: 3" VALVE T	O PIPE WE	LD						
System ID:	AFW - FR	OM AFW PU	MPS 1A/1B AND	TURB. DRIVE	N PUMP DI	ІЗСН. ТО РЕ	N. 46E								
Component ID:	ISIM-891-2	2/AFW-W172	2			·····			Size/L	ength:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None									Start	Time:	1420	Finis	n Time:	1426
	Instrum	ent Settings			Sea	arch Unit		Cal.				Avial	Orientated S	ooroh Unit	
Serial No.:		01R5N	IW	Serial No.:		SC0240	)	Checks	Time	Date	Calibr		Signal		T
Manufacturer:		GE INSPE	CTION	Manufactu	irer:	KRAUTKF	AMER	Initial Cal.	1347	4/12/2008	Refle		mplitude %	Sweep Division	Sound Path
Modei:		USN 60		Size:	0,25"	Shape:	ROUND	Inter, Cal.	1420	4/12/2008	ID N	otch	80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal. Inter. Cal.	N/A N/A						
M'tl Cal/Vel:	.1268"	- Pulser: -	Square	Exam Ang	le: 70		ements: Single	Final Cal.	1502	4/12/2008					- <u> </u>
Damping: Rep, Rate:	500 ohms Auto-High	_ Reject: _ Freq.:	0% 5.0 MHZ	Mode:	<b>A</b>	SHEAR	<u> </u>	L	Couplan		<b></b>				
Filter:	N/A	– <sup>Mode:</sup> –	Fuliwave	Measured Wedge St		6 MSWC		Cal. Batch:	-	07143		Circumfer	ential Orienta	ted Search	
Voltage:	450	Other:	P/W-100	Wedge Ol	yie.						Calibr		Signal	Sweep	- <u></u>
Ax. Cain (dB):	42.3	Circ. Gain	n (dB): N/A		Searc	h Unit Cable	1		SONOTE		Refle		mplitude %	Division	Sound Path
10 Screen [	Div. <b>≕ 1.94</b>	in. of	Sound Path	Туре:	BN	C to MCD: R	G-174	Exam Batcl		 07143	N/	A			
Linearity Repor	t No.:	 L-0	8-003	Length:	6'	No. Conn.:	0		SONOTE		<u> </u>				
		ation Block			Scan	Coverage			SONOTE		·				
Cal. Block No.:		WPS-	60	Upstream	Downs	stream 🟹 S	can dB: 42.3	_					rence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	cw	_		can dB: N/A		erence E		Gain		Signal	Sweep	
Cal. Blk. Temp		np. Tool:	257117	Exam Surf	ace:	0	D	Serial No.:		MT-111 IPAS	dB	Reflector	Amplitude %		Sound Path
Comp. Temp.:	<b>70</b> Ter	np. Tool:	257117	Surface Co	ondition:	FLAT	TOPPED	Туре:	RON	IPAS	42.3	.3" SDH	60%	4.8	.930"
Recordable in	dication(s):	Yes	No <b>√</b>	(If Yes, Ref.	Attached U	Iltrasonic Indi	cation Report.)						†	1	<u> </u>
Results:	Accept 🖌	Reje	ct	Info 🗌 Risk	informed	weld.			Co	mments: Pe	erformed §	Single side	d exam prior	to support	installation.
Percent Of Cov	verage Obtain	ed > 90%:	No		Previous D		N/A								
Examiner	Level	11	11	Signature			Date Review	ver	· · · · · ·			- Signatu	ire/		Date
Coburn, Time	othy M.	MM	$\mathbb{V}$			4/1	2/2008 Jei	Emy Tr.	mm		6	r let	2	5/1	3/08
Examiner	Level	"	4/1	Signature			Date Site R	eview			OA IA	Signatu			Date
Currao, Jeffre			flmm	<u></u>		4/1:		<u>I.P E. Bi</u>	<u>iKes</u>	7.	hillip	C Buk		loy 13.	2008
Other	Level	NA		Signature			Date ANII F			$\frown$	, , , , , , , , , , , , , , , , , , ,	Signatu		U U	Date
N/A								Emes W.N	lemery	$\sim$	iams U	Num	isy	1311440	5



Examination Volume Dimensions = Height 0.10" Length 11.0" Width 1.80"

Axial Upstream 53% Axial Downstream 100% Circ Upstream 0% Circ Downstream 100%

Achieved 63% Risk Informed Examination Coverage



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-27

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W178 Preservice Examination

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

#### 4. Impracticality of Compliance:

17.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W178 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 17.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W178 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W178 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice Inspection examinations, if required, will be performed by the Radiography Method

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# **RELIEF REQUEST NO: RR-G-5-27**

to achieve required examination volume.

- 7. Duration of Proposed Alternative:
  4th Ten-Year Interval June 16, 2004 June 16, 2014
- 8. Precedents: Not Applicable

# 9. References:

Not Applicable

					0.	Junpiu		made							
<b>and Dam</b>	inion	Site/Unit:	KPS	1	1	<u> </u>	Proc	edure:	ER-AA-	NDE-UT-801 I	Rev. 0		Outage	No.:	K1R29
	Sur	mmary No.:		(1.C5.61.177			Procedure	Rev.:		0		-	Report	No.: U	T-08-232
	v	Vorkscope:		PSI			Work Orde	er No.:		07-009669	<u> </u>	-	Pa	age: <u>1</u>	of <b>1</b>
Code:	A	SME Sect. X	98 Ed/00 Add		с	at./Item:	C-F-2/C5.6	51		Location:		TU	RBINE BUILI	DING	
Drawing No.:			ISIM-891-2		-	Descriptio	on: 3" VALVE	TO PIPE WE	ELD			<u></u>			
System ID:	AFW - FF	ROM AFW PU	IMPS 1A/1B AN	D TURB. DRI	VEN PUMI	P DISCH. TO PI	EN. 46E								
Component ID:	ISIM-891-	2/AFW-W178	B						Size/	_ength:	3"/10.99"		Thickness/Di	ameter:	0.438"/3.5"
Limitations:	None							<u> </u>		Start	Time:	0840	Finis	h Time:	0849
-	Instrum	nent Setting:	s			Search Unit		<u> </u>		<u> </u>					
Serial No.:		01R5N		Serial N		SC013	8	Cal. Checks	Time	Date			Orientated S		- <b>-</b>
Manufacturer:		GE INSPE	CTION	Manufa	<u></u>	KRAUTK		Initial Cal.	0700	4/25/2008	Calibr Refle		Signal	Sweep Division	Sound Path
Model:		USN 60	SW	Size:	0.25"	Shape:	ROUND	Inter, Cal.	0840	4/25/2008	ID N	otch	80%	5.0	.632"
Delay:	3.3775	Range:	.939"	Freq.:	5.0 MH	Z Style:	COMP-G	Inter. Cal.	N/A						
M'ti Cai/Vel:	.1268	Pulser:	Square	Exam A	ngle:		lements: Single	Inter. Cal. Final Cal.	N/A 1350	4/25/2008	ļ				ļ
Damping:	500 ohms	Reject: _	0%	Mode:		SHEAR	· · · · · · · · · · · · · · · · · · ·								
Rep. Rate:	Auto-High N/A	— <sup>Freq.:</sup> — Mode:	5.0 MHZ Fullwave		ed Angle:		<u>45</u>	Cal. Batch:	Couplan	07143		Circumfor	ential Orienta		Unit
Voltage:	450	- Other: -	P/W-100	Wedge	Style:	10,244			SONOTE		Calibr	_ <u></u>	Signal		
Ax. Gain (dB):	19.0dB	Circ. Gair	n (dB): <b>19.0</b> 0	IB	Se	arch Unit Cable	e	· · · · · · · · · · · · · · · · · · ·	SONOTE		Refle		mplitude %	Sweep Division	Sound Path
10 Screen E	Div. = .939	in. of	Sound Path	Туре:		BNC to MCD: F	RG-174	Exam Batcl	<u></u>	07143	N/	Ά			
Linearity Report		 L-0	8-003	Length	6,	No. Conn.:	0		SONOTE						ļ
an oung rispon		ration Block			S	 can Coverage		· · · · · · · · · · · · · · · · · · ·	SONOTE						
Cal. Block No.:		WPS-	59	Upstrea	am 🔽 Do	wnstream 🔽 🖇	Scan dB: <b>31.0</b>	·			<u> </u>		rence/Simula		
Thickness:	0.438"	Dia.:	3"		w 🗹		Scan dB: 37.0	Rei	ierence E		Gain		Signal	Sweep	
Cal. Blk. Temp.	.: <b>70</b> Te	 mp. Tool:	259564	Exam S	Surface:	0	D	Serial No.:		MT-111	dB	Reflector	Amplitude %		Sound Path
Comp. Temp.:	75 Te	mp. Tool:	259564	Surface	- Condition	: FLAT	TOPPED	Туре:	RON	IPAS	19.0	.7" SDH	20%	8.2	1.043"
Recordable In	dication(s):	Yes	□ No 🔽	(If Yes, F	ef. Attache	d Ultrasonic Ind	lication Report.)					}	{		
Results:	Accept 🖌	] Reje	ct	Info 📋					Co	omments: <b>0 d</b>	leg lamina	ation scan	performed. F	lisk inform	ed weld.
Percent Of Cov	verage Obtain	ned > 90%:	No	Review	ved Previou	us Data:	N/A								
Examiner	Level	11	_	Signature			Date Review					Signatu	Ire	-	Date
Pollock, Norm			Nom		1	4/2	25/2008 Jere	my Tin	11			<u>I</u>	2	5/1	3/08
Examiner N/A	Level	N/A		Signature			Date Site H	eview	DUL	<b>^</b> (	Î DI	Signati	ukes ;	M	Date
Other	Level	N/A		Signature			Date ANII F	ILLIP EL	DUK	<u>دع</u>		Signat	16	<u>110 j 13</u>	2008 Date
N/A	20101	1974						mes Wil	lienera		$\sum$	maw	(iemery	13M	
							V *		-						

	× ×	Site/Unit:	KPS	1	1	Cambrat		edure:	EB-AA-	NDE-UT-801	Rev 0		Outage	No :	K1R29
<b>AP</b> Comi		mary No.:					Procedure			0		-	Report		T-08-233
		orkscope:		PSI			Work Ord			07-009669			•	age: 1	of 1
Code:	AS	ME Sect. X	198 Ed/00 Add		Ca	t./Item:	C-F-2/C5.			Location:			JRBINE BUIL	DING	
Drawing No.:			ISIM-891-2			•	on: <b>3" VALVE</b>	TO PIPE WI	ELD						<u> </u>
System ID:			IMPS 1A/1B AN	D TURB. DRIV		DISCH, TO PE	:N. 46E		<u> </u>						
Component ID:	ISIM-891-2	VAFW-W17	B	··· ···					Size/	Length:	3"/10.99"		Thickness/D	ameter:	0.438"/3.5"
Limitations:	None			· · · · _ · _ · _ · _ · · _ · · · · · ·				<u></u>		Sta	rt Time:	1300	Finis	h Time:	1309
	instrum	ent Setting	S		S	Search Unit		Cal.	Time	Date	]	Axia	Orientated S	earch Unit	
Serial No.:	<u> </u>	01R5N		Serial No	».:	SC0138	8	Checks			Calib		Signal	Sweep	
Manufacturer:		GE INSPE		Manufac	turer:	KRAUTKF	RAMER	Initial Cal.	0710	4/25/2008	Refle		Amplitude %	Division	Sound Path
Model:		USN 60		Size:	0.25*	Shape:	ROUND	Inter. Cal.	1300 N/A	4/25/2008	ID N	otch	80%	4.8	.828"
Delay:	4.9966	- Range: Pulser:	1.2" Square	Freq.:	5.0 MHZ	´ _	COMP-G	Inter. Cal.	N/A		1└───				
M'tl Cal/Vel: Damping:	500 ohms	– <sup>Fuiser</sup> – Reject:	0%	Exam Ar Mode:	igie:	60 # of El SHEAR	ements: Single	Final Cal.	1400	4/25/2008	]				
Rep. Rate:	Auto High	- Freq.:	5.0 MHZ	Mode. Measure	d Angle:		9		Couplar	nt	-				
Filter:	N/A	Mode:	Fullwave	Wedge S		MSWO		Cal. Batch:		07143		Circumfe	rential Orient	ated Search	Unit
Voltage:	450	Other:	P/W-100					Туре:	SONOTI	RACE 40	Calib	ration	Signal	Sweep	
Ax. Gain (dB):	35.0	_ Circ. Gair	n (dB): N/A	<u>.                                    </u>	Sea	rch Unit Cable	9	Mfg.:	SONOTE	ECH INC.	Refle	ector	Amplitude %	Division	Sound Path
10 Screen D	Div. = <b>1.2</b>	in. of	Sound Path	Туре:	E	BNC to MCD: F	RG-174	Exam Batc	h:	07143	N/	<u>/A</u>	· · ·		
Linearity Report	t No.:	L-0	8-003	Length:	6'	No. Conn.:	0	Туре:	SONOTI	RACE 40	[ <b> </b>				
	Calibra	tion Block			Sc	an Coverage		Mfg.:	SONOTE	ECH INC.	-				1
Cal. Block No.:		WPS-	59	Upstrear	n 🗌 Dow	vnstream 🔲 S	Scan dB: N/A	Ref	ierence l	Block		Ref	erence/Simul	ator Block	
Thickness:	0.438"	Dia.:	3"	CV	v 🔽	ccw 🖌 s	Scan dB: 41.0	Serial No.:		MT-111	Gain	Deffecte	Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <u>70</u> Terr	np. Tool:	259564	Exam Su	Irface:	0	D	Type:		APAS	- dB 35.0	.7" SDH	Amplitude %	6 Division 8.3	1.456"
Comp. Temp.:	Tem	np. Tool:	259564	Surface	Condition:	FLAT	TOPPED				-	1			
Recordable Inc	dication(s):	Yes	No 🔽	(If Yes, Re	f. Attached	l Ultrasonic Ind	ication Report.)					[			
Results:	Accept 🖌	Reje	ct	Info 📋					Co				an in the circ		
Percent Of Cov	erage Obtaine	ed > 90%:	No	Reviewe	d Previous	s Data:	N/A				/eld root s formed we	<b>.</b>	d when skew	ed towards	weld. Risk
Examiner	Level	11		Signature	·····		Date Revie	wer	_			Signat	ザク		Date
Pollock, Norm	an E.		Pros	na Da	eth-	4/2	5/2008 Jei	emy 7	IMM			w lo	5	S/i	3/08
Examiner	Level	N/A		Signature			Date Site F	Review				Signat	4		Date
N/A	1			Dianatura				ILP E.I	Buke	5	<u></u>	ellip C	Bukes	Thay 13	2008
Othor N/A	Level	N/A		Signature				Review Ta <b>mes W</b> a	limes		_) am		ure Lement	IS MAY	Date 708
								J ames W	IN ICM	~					-

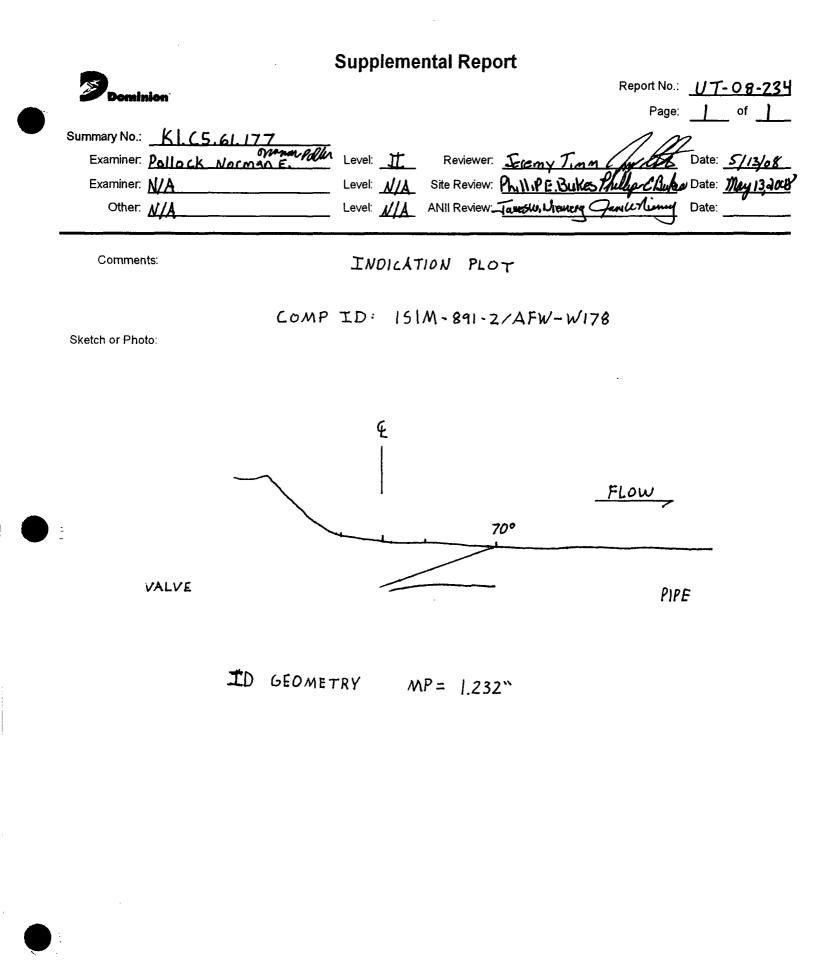
					51 04	indiat		mauo							
<b>Si Domi</b>	nion	Site/Unit:	KPS	/ 1			Proce	edure:	ER-AA-I	NDE-UT-801	Rev. 0	_	Outage N	lo.:	K1R29
	Sumi	mary No.:	K1	.C5.61.177			Procedure	Rev.:		0		_	Report N	lo.: U	T-08-234
	Wo	orkscope:		PSI			Work Orde	er No.:		07-009669		-	Pa	ge: <b>1</b>	of <b>2</b>
Code:	ASI	ME Sect. XI	98 Ed/00 Add		Cat./Iter	m:	C-F-2/C5.6	1		Location:		τυ	RBINE BUILD	ING	
Drawing No.:			ISIM-891-2			Descriptio	on: 3" VALVE	TO PIPE WE	LD						
System ID:	AFW - FRO	M AFW PU	MPS 1A/1B AND	TURB. DRIVEN P	UMP DIS(	СН. ТО РЕ	EN. 46E	··							
Component ID:	ISIM-891-2/	/AFW-W178	3	<u> </u>					Size/L	ength:	3"/10.99"		Thickness/Dia	meter:	0.438"/3.5"
Limitations:	None									Start	Time:	1700	Finish	Time:	1709
	Instrume	ent Settings	3		Sear	ch Unit		Cal.				Avial	Orientated So	arob Unit	
Serial No.:		01R5N	w	Serial No.:		SC0240	D	Checks	Time	Date	Calibr		Signal		<u> </u>
Manufacturer:		GE INSPE	CTION	Manufacturer:		KRAUTKF	RAMER	Initial Cal.	0720	4/25/2008	Refle		mplitude %	Sweep Division	Sound Path
Model:		USN 60		Size:0.	.25"	Shape:	ROUND	Inter. Cal.	1700	4/25/2008	ID N	otch	80%	5.0	1.412"
Delay:	6.6259	Range:	1.94"	Freq.:5.0	MHZ	Style:	COMP-G	Inter. Cal. Inter. Cal.	N/A N/A						
M'tl Cal/Vel:	.1268	- Pulser: -	Square	Exam Angle:	70	-	ements: Single	Final Cal.	1750	4/25/2008					
Damping: Rep. Rate:	500 ohms Auto-High	- Reject: _ Freq.:	0% 5.0 MHZ	Mode:		SHEAR		L.,	Couplan						
Filter:	N/A	- Mode: _	Fullwave	Measured Ang Wedge Style:	jie:	MSWC	<u></u>	Cal. Batch:	-	07143		 Circumfer	ential Orienta	ed Search	L Unit
Voltage:	450	Other:	P/W-100	- Houge Otyle.		morre			SONOTR		Calibr		Signal	Sweep	T
Ax. Gain (dB):	42.2	Circ. Gair	n (dB): N/A		Search l	Jnit Cable	•		SONOTE	CH INC.	Refle		mplitude %	Division	Sound Path
10 Screen D	)iv. = <b>1.94</b>	- in. of	Sound Path	Туре:	BNC	to MCD: R	RG-174	Exam Batch	n:	07143	N/	A			
Linearity Report	No.:	L-0	8-003	Length:	6' N	lo. Conn.:	0		SONOTE						
	Calibra	tion Block			Scan C	overage		Mfg.:	SONOTE	CH INC.					
Cal. Block No.:		WPS-	59	Upstream 🖌	Downstre	eam 🖌 S	Scan dB: 48.2	Ref	erence E	llock		Refe	rence/Simula	tor Block	
Thickness:	0.438"	Dia.:	3"	cw 🗌	C	cw∐ s	Scan dB: N/A	Serial No.:		MT-111	Gain		Signal	Sweep	Sound Path
Cal. Blk, Temp.:	: <b>70</b> Tem	p. Tool:	259564	Exam Surface	:	0	D	Type:	ROM		dB 38.2	Reflector .3" SDH	Amplitude % 48%	Division 3.4	.975"
Comp. Temp.:	75 Tem	p. Tool:	259564	Surface Cond	ition:	FLAT	TOPPED	. <b>, ,</b> , , , , , , , , , , , , , , , , ,			30.2	.5 300	40 /0	3.4	.975
Recordable Inc	dication(s):	Yes	✓ No □	(If Yes, Ref. Atta	ached Ultri	asonic Indi	ication Report.)								
Results:	Accept 🖌	Reje	ct 🗌	Info 🗌					Co				tal 70 deg sca		
Percent Of Cov	erage Obtaine	ed > 90%:	<u>No</u>	Reviewed Pre	evious Dat	a:	N/A			we	-		rown configu		
Examiner	Level	11		Signature			Date Review	ver				Signatu	те)/		Date
Pollock, Norm	an E.		Nun	a Polla		4/2	5/2008 Jere	my Tin	m			m E	t	5/1	3/08
Examiner	Level	N/A		Signature			Date Site R				21	Signatu			Date
N/A				<u></u>	<u> </u>			IP E.BI	uKes		Th	the Cr	Sultas	<u> May 13</u>	2008
Other N/A	Level	N/A		Signature			Date ANII R	ieview Comes W. A	مر بعد ال	a (		Signatu	1e imer	/3/14	Date
188								unes with		]	/~			1 2. 40	1 40



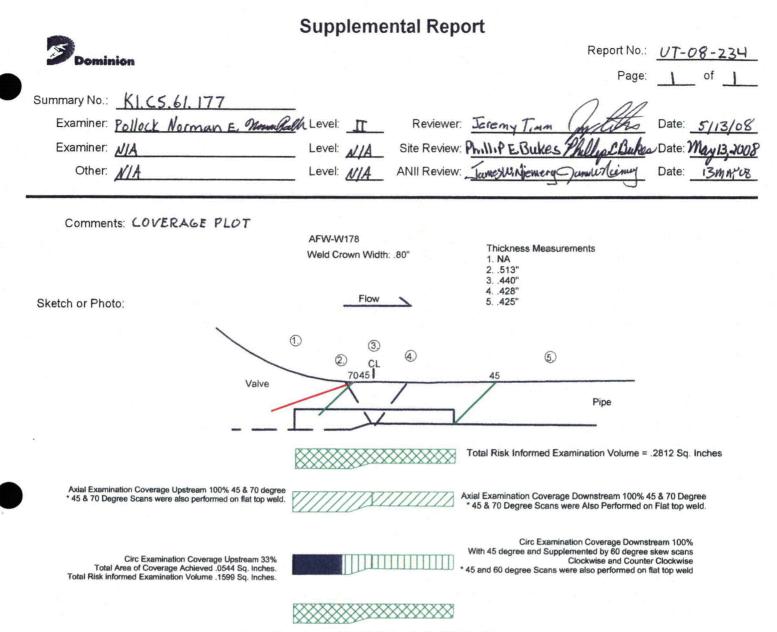
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# **Ultrasonic Indication Report**

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Do: Do:	minion	Site/Unit	t: KPS	i ,	1	1		P	rocedure	ER-AA	-NDE-U	T-801 R	ev. 0 O	utage No.:	1	K1R29	)
	Sun	nmary No.	.:	K1.	C5.61.17	7		Proced	ure Rev.	.:	0		F	Report No.:	U	T-08-2	34
	v	/orkscope			PSI			Work C	order No.	.:	07-009	669		Page:	_2	of	2
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Sea	arch Unit An		70		0			_	oing Wel		<b>.</b>					CL	W1 W2
			eld Centeri					-		sels ≥	2"1			,		÷~_	لل
	Lo Locat	ion: <u>To</u>	p Dead Ce	nter				⊖ Otl	her -						· ``.	К	
MP	Metal P	ath			Wm	nax D	istance F	From Wo	To S.U.	At Maxin	num Res	ponse					
RBF			Reflection		W1			From Wo			Max (Fo	•		···	☆~		DATUM Lo
		e From Da			W2			From Wo			Max (Fo				4	<u> </u>	
										.078 01				I2		$\mathbf{L}$	
Con	nments: N	lone												T.L	<u>*-</u>	<u> </u>	<u>р</u> рс
																1	W1 Wmax V
Scan	Indication	%	w		For	ward	Back	ward	L1	L	L2	RBR			Remar	ks	
#	No.	Of	Max	x		Of Max	20% (	Of Max	20% Of	Max	20% Of	Amp.					
L		DAC	W	MP	W1	MP	W2	MP	Max	<u> </u>	Max		ļ <u> </u>				
2	1	100+	1.1"	1.2"	.8"	.914"	1.3"	1.38"	2.1"	2.6"	2.8"	NA	ID Geometry	/	······		
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											<u> </u>		<u> </u>				
Examine	r Level				Signatu	re			Date Rev	viewer	<u> </u>		······································	Signa	iture /	1	
	Norman E.	••	N	and	Íolli			4/25/2	2008 3	- cremy	Tim	m		In the	the second	-	5/13/0
Examine				<u> </u>	Signatu	re		[	Date Site	e Review			01	Signa	ature		
N/A										hillip 1		<u>ces</u>	Phu	lip C Bu		M	lay 13 200
Other	Level	N/A			Signatu	re		[		II Review			$\bigcirc$	Signa	ture.		. کمبر میں ک
N/A										James	W N I	emerg		mercer	un	nergy	3maro



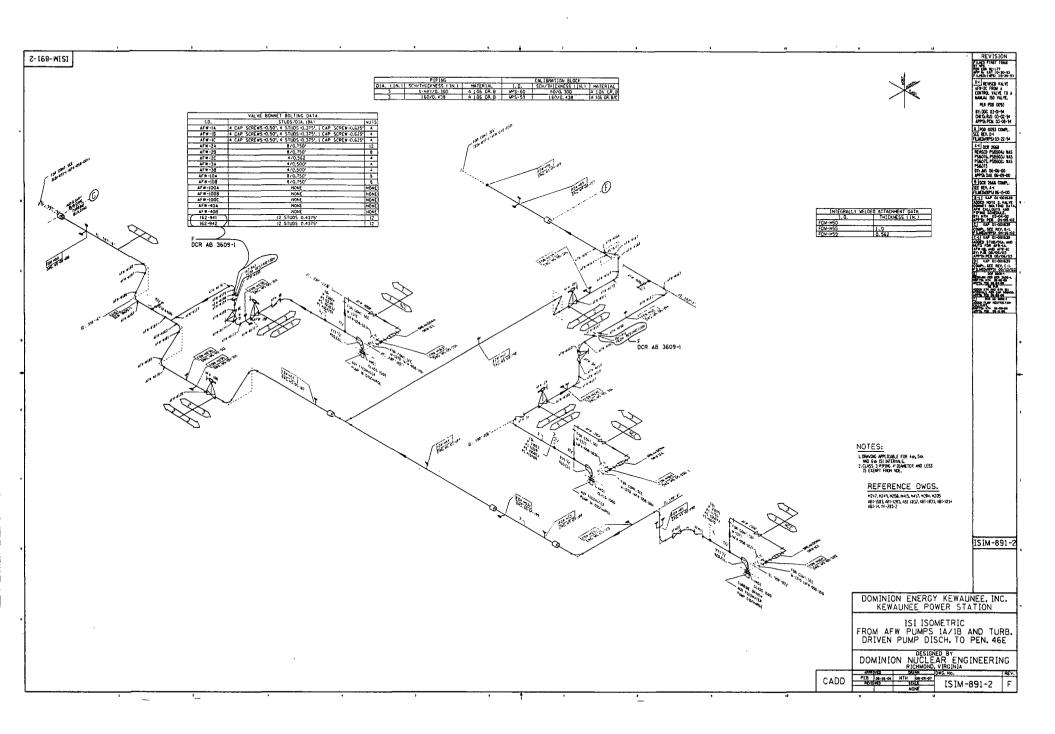
:



Examination Volume Dimensions = Height 0.15" Length 11.0" Width 1.80"

Axial Upstream 100% Axial Downstream 100% Circ Upstream 33% Circ Downstream 100%

Achieved 83% Risk Informed Examination Coverage



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-28

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

# INSERVICE INSPECTION IMPRACTICALITY

## **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W189 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

# 4. Impracticality of Compliance:

13.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W189 was inaccessible due to Pipe to Flange Configuration restricting Ultrasonic Examination.

# 5. Burden Caused by Compliance:

To provide for access to the 13.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W189 would require modification of the original design of the Auxiliary Feedwater Piping.

# 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W189 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-28

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

Not Applicable

Page 2 of 2

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<b>Si </b> Domi	inion	Site/Unit:	KPS	1	1		Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage N	lo.:	K1R29
	Su	mmary No.:	K1	.C5.61.188			Procedure	Rev.:		0		-	Report N	lo.: U	T-08-246
	١	Workscope:		PSI			Work Orde	er No.:		07-009669		_	Pa	ge: <b>1</b>	of <b>1</b>
Code:	A	SME Sect. >	(I 98 Ed/00 Add		Cal	t./Item:	C-F-2/C5.6	51		Location:		AU		DING	
Drawing No.:		· · · · ·	ISIM-877-1		•	Descriptio	on: 3" PIPE TO	FLANGE W	 VELD				<u>.                                    </u>		
System ID:	AFW - A	UXILIARY FI	EDWATER PIPIN	IG FROM INT	ERMEDIA	TE ANCH. TO	PEN. #46W								
Component ID:	ISIM-877	-1/AFW-W18	9		··		- · · · · · · · · · · · · · · · · · · ·		Size/	Length:	3"/10.99"		Thickness/Dia	meter:	0.300"/3.5"
Limitations:	None									Start	Time:	1020	Finist	Time:	1029
	Instru	ment Setting	js			Search Unit		Cal.	Time		1	Δxia	Orientated S	arch Unit	
Saria No.:		01R5	NW	Serial No	o.:	SC013	8	Checks	Time	Date	Calib		Signal	Sweep	
ite instacturer:	<u> </u>	GE INSPI		Manufac	turer:	KRAUTKI	RAMER	Initial Cal.	0930	4/26/2008	Refle		Amplitude %	Division	Sound Path
(aodel:				Size:	0.25"	Shape:	ROUND	Inter. Cal. Inter. Cal.	1020 N/A	4/26/2008	IDN	otch	80%	5.0	.461"
D.∴.,: M'tl Cal/Vel:	3.3775 .1268	<sup>Range:</sup> . Pulser:	.939" Square	Freq.:	5.0 MHZ		COMP-G	Inter. Cal.	N/A			<u> </u>			<u> </u>
Damping:	500 ohms		Square 0%	Exam Ar Mode:	ngle:	45# of El SHEAR	ements: Single	Final Cal.	1530	4/26/2008					╂
Rep. Rate:	Auto-High		5.0 MHZ	Measure	d Angle:		15		Couplar	nt				·	<b>-</b>
Filter:	N/A	Mode:	Fullwave	 Wedge \$	••••	MSWO	20	Cal. Batch:		07143		Circumfe	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100					Туре:	SONOTI	RACE 40	Calib		Signal	Sweep	Sound Path
Ax. Gain (dB):	19.0dB	Circ. Gai		3	Sear	rch Unit Cable	•	Mfg.:	SONOTE	CH INC.	Refle		Amplitude %	Division	Sound Fain
10 Screen	Div. = .93	9in.of	Sound Path	Туре:		INC to MCD: F	IG-174	Exam Batch	n:	07143	N/	<u>'A</u>	· · ·		
Linearity Report	t No.:	L-	08-003	Length:	6'	No. Conn.:	0		SONOTI	RACE 40	<b></b>				
	Calib	ration Block	:		Sca	an Coverage		Mfg.:	SONOTE	CH INC.					1
Cal. Block No.:		WPS	-60	Upstrear	_	vnstream 🔽 S	Scan dB: <u>31.0</u>	Ref	erence E	Block		Ref	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	CV	V 🔽	ccw 🔽 s	Scan dB: <u>37.0</u>	Serial No.:	L	MT-111	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp.	.: <u>70</u> Te	emp. Tool:	259564	Exam Su	urface:	0		Туре:	RON	IPAS	25.0	.3" SDH	44%	4.8	.452"
Comp. Temp.:		mp. Tool:	259564		Condition:		TOPPED								
Recordable in	dication(s):	: Yes	No 🖌	(If Yes, Re	f. Attached	I Ultrasonic Ind	ication Report.)								
Results:	Accept	🖌 Reje	ect 🗌	Info 🗌					Co	omments: 0 c	leg lamin	ation scan	performed. R	isk inform	ed weld.
Percent Of Cov	verage Obtai	ned > 90%:	No	Reviewe	ed Previous	Data:	N/A								
Examiner	Level	11	_	Signature			Date Review	<u>_</u>	······			Signat	¥9 /		Date
Pollock, Norm		····	Denne	Poll	<u></u>	4/2	6/2008 Jere		mm			1 h		5	13/08
Examiner	Level	N/A		Signature			Date Site R	eview	1100		Ð	Signat		<u>^</u>	Date
N/A Olha	Level			Signaturo				PE.BU	ikes	<u> </u>		<u>ullips (</u>	TJURED	11 ay 13	2008
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<b>and Dami</b>	imion	Site/Unit:	KPS	/1			Procee	dure:	ER-AA-	NDE-UT-801	Rev. 0	_	Outage	No.:	K1R29
	Su	mmary No.;	K	1.C5.61.188		Р	rocedure F	Rev.:		0		_	Report	No.: <u>U</u>	T-08-248
	١	Workscope:		PSI		W	ork Order	No.:		07-009669		_	Pa	age: <u>1</u>	of <u>1</u>
Cocia:	A	SME Sect. )	(I 98 Ed/00 Add		Cat./Item:	C-	F-2/C5.61			Location:		AU)	ILIARY BUIL	.DING	
Enswing No.:			ISIM-877-1		De	scription: 3"	PIPE TO	FLANGE W	VELD		<u></u>				
System ID:	AFW - AU	UXILIARY F	EEDWATER PIPI	NG FROM INTER	MEDIATE ANC	H. TO PEN. #	46W								
Component ID:	ISIM-877	-1/AFW-W18	39						Size/	Length:	3"/10.99"	···· , <u></u> ·	Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None									Start	Time:	1230	Finis	h Time:	1239
<u> </u>	Instru	ment Setting	15	· · · · · · · · · · · · · · · · · · ·	Search L	Init	r				=				
Serial No.:	1134 41	01R5	-	Serial No.:		SC0138		Cal. Checks	Time	Date		·····	Orientated S	earch Unit	
Manufacturer:		GE INSP		Manufacture		UTKRAMER	[	Initial Cal.	0940	4/26/2008	Calibr Refle	,	Signal mplitude %	Sweep Division	Sound Path
Model:		USN 6	0 SW		· · · · · · · · · · · · · · · · · · ·	nape: ROL	[	Inter. Cal.	1230	4/26/2008	ID N		80%	5.0	.600"
Delay:	4.9966	Range:	1.2"	Freq.: 5	.0 MHZ S	Style: COM		Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle	e: <u>60</u>	# of Elements	Single	Inter. Cal. Final Cal.	N/A 1540	4/26/2008					
Dan ping:	500 ohms	<b>`</b>	0%	Mode:			L		·						<u> </u>
Rep. Rate:		· ·	5.0 MHZ Fullwave	Measured A	·	59			Couplar			Circumfer	ntial Orienta	ted Court	
Filter:		Mode: Other:	P/W-100	Wedge Style	e:	MSWQC		Cal. Batch: Type:		07143 RACE 40	<u>}</u>		ential Orienta	·····	
Ax. Gain (dB):	32.5	Circ. Ga			Search Unit	Cable		· · · · ·			Calibr Refle		Signal mplitude %	Sweep Division	Sound Path
10 Screen [	Div. = 1.2	in. of	Sound Path	—— Туре:		ICD: RG-174		Exam Batch		07143	N/	A			
Linearity Repor		 -	-08-003	Length:	6' No. C	Conn.:	n			RACE 40					
		ration Block			Scan Cove	erage		· · · · · · · · · · · · · · · · · · ·		ECH INC.					
Cal. Block No.:		WPS		Upstream [	] Downstream	Scan dB	: <b>N/A</b>					Refe	rence/Simula	ator Block	
Thickness:	0.300"	Dia.:	3"	cw 🔽	ccw	Scan dB	44.5		erence l		Gain	Tiere	Signal	Sweep	Sound Dath
Cal. Blk. Temp.	.: <b>70</b> Te	- – emp. Tool:	259564	Exam Surfac	ce:	OD ,		Serial No.:		MT-111 //PAS	dB	Reflector	Amplitude %		Sound Path
Comp. Temp.:	<b>72</b> Te	mp. Tool:	259564	Surface Cor	ndition:	FLAT TOPPE		Туре:		AFA5	32.5	.3" SDH	70%	5.0	.605"
Recordable In	dication(s):	: Yes		(If Yes, Ref. A	ttached Ultraso	nic Indication	Report.)								
Results:	Accept 🔽	🖌 Rej	ect	Info 📄					Co	omments: Pe	rformed s	kewed sca	n in the circi	umferential	direction.
Percent Of Cov	verage Obtai	ned > 90%:	<u>No</u>	Reviewed F	Previous Data:	N/A					eld root si formed we	7	when skewe	ed towards	weld. Risk
Examiner	Level	 		Signature		Date	Reviewe	ər				Bjgnatu	18-1		Date
Pollack, Norm	nan E.		Homand	all		4/26/2008	Jore	my T.	mm		(	L		51	13/08
Examiner	Level	N/A		Signature		Date	Site Rev	view				Signatu		•	Date
N/A				······				PE.B	LKes	)	Phi	the C.	Bukes 7.	May 13 2	
Other	Level	N/A		Signature		Date			. 1	$\sim$		Signatu	re	0	Date
N/A								ames Wil	NIEMY	ere _	_ jam	will	merg	13mmy	28 8

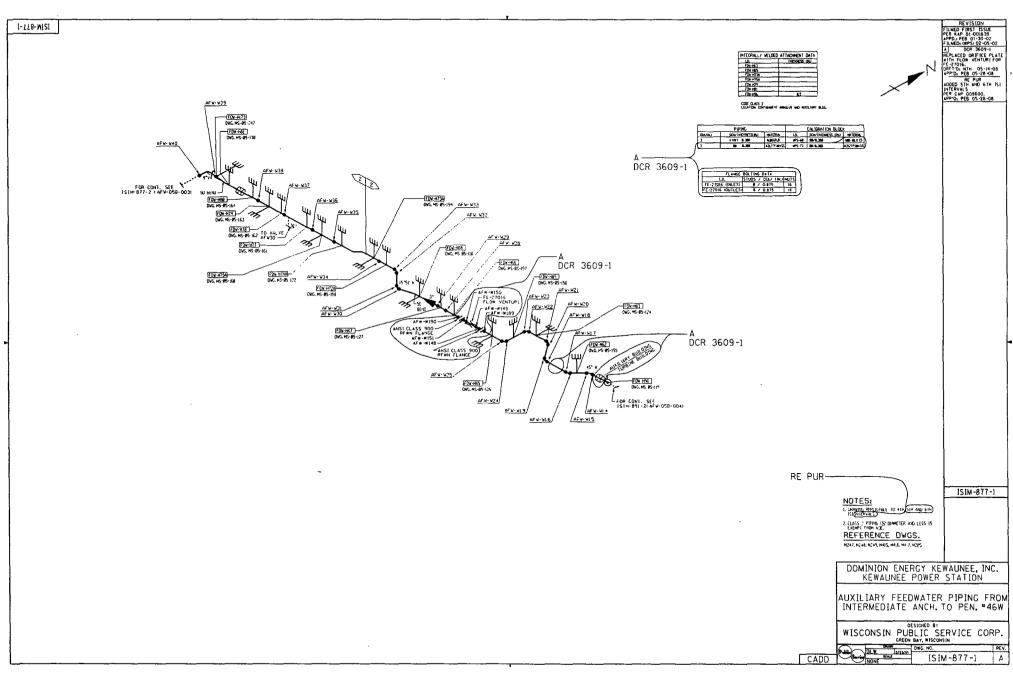
-	

# LIT Collibration / Eventination

				UI	Calibrat	ion/Exan	ninatio	n						
<b>Set</b> tami	nion	Site/Unit:	KPS	/ 1		Proce	edure:	ER-AA-	NDE-UT-801 I	Rev. 0		Outage I	No.:	K1R29
	Sumr	nary No.:	K1.	C5.61.188		Procedure	Rev.:		0			Report I	No.: U	JT-08-249
	Wo	orkscope:		PSI		Work Orde	er No.:		07-009669			Pa	ige: 1	of <b>1</b>
Code:	ASI	ME Sect. X	1 98 Ed/00 Add	Ci	at./Item:	C-F-2/C5.6	51		Location:		AU		DING	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
Drawing No.:			ISIM-877-1		Descriptio	on: 3" PIPE TO	FLANGE W	– /ELD						
System ID:	AFW - AUX	ILIARY FE		G FROM INTERMEDIA	ATE ANCH. TO	PEN. #46W								·
Component ID:	ISIM-877-1/	AFW-W18	9					Size/l	_ength: 3	3"/10.99"		Thickness/Dia	ameter:	0.300"/3.5"
Limitations:	None		· · · · · · · · · · · · · · · · · · ·	······································					Start	Time:	1340	Finis	h Time:	1349
	Instrume	ent Setting	s		Search Unit		Cal.	Time	Date		Axia	Orientated S	earch Unit	
Serial No.:	<u> </u>	01R5		Serial No.:	SC024	0	Checks			Calib	ration	Signal	Sweep	
Manufacturer:		GE INSPE		Manufacturer:	KRAUTKE		Initial Cal.	0950	4/26/2008 4/26/2008	Refle	ector A	mplitude %	Division	Sound Pati
Model:				Size:0.25"	Shape:	ROUND	Inter. Cal. Inter. Cal.	1340 N/A	4/26/2008	ID N	otch	80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.:5.0 MH2		COMP-G	Inter, Cal.	N/A						
M'ti Cal/Vel:	.1268	Pulser:	Square			ements: Single	Final Cal.	1550	4/26/2008					
Damping: Rep. Rate:	500 ohms Auto-High	- Reject: _ Freq.:	0% 5.0 MHZ	Mode:	SHEAR	· · · · · · · · · · · · · · · · · · ·	I	Couplar	f					
Filter:	N/A	- Mode:	Fullwave	Measured Angle: Wedge Style:	MSW	<u>i9</u>	Cal. Batch;	•	07143		Circumfer	ential Orienta	ted Search	
Voitage:	450	Other:	P/W-100		1413440				RACE 40	Calib		Signal		
Ax. Gain (dB):	42.3	Circ. Gair		 Sea	arch Unit Cable	•	· · ·		CH INC.	Refle	1	Amplitude %	Sweep Division	Sound Pat
10 Screen D	iv. = <b>1.94</b>	in. of	Sound Path	— Type: I	BNC to MCD: F	RG-174	Exam Batch	·········	07143	N	/A			
Linearity Report			08-003	Length: 6'	No. Conn.:	0			RACE 40					
Zindaniy nopore		tion Block			– can Coverage		· · · · · · · · · · · · · · · · · · ·		CH INC.					
Cal, Block No.:	Galibia	WPS-		Upstream 🖌 Dov	wnstream 🖌 S	Scan dB: <b>48.3</b>		_			l	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	cw	ccw 🗌 s	Scan dB: N/A		erence E	зюск МТ-111	Gain		Signal	Sweep	Sound Pati
Cal. Blk. Temp.:	: 70 Tem	р. Tool:	259564	Exam Surface:	O	D	Serial No.: Type:			dB	Reflector .3" SDH			
Comp. Temp.:	72 Tem	p. Tool:	259564	Surface Condition:	FLAT	TOPPED				42.3	.3 SDH	60%	4.8	.930"
Recordable Inc	dication(s):	Yes	□ No 🖌	(If Yes, Ref. Attache	d Ultrasonic Ind	ication Report.)						t	<del> </del>	<u> </u>
Results:	Accept	Reie	ct 🗍	Info				Cc	mments Per	formed s	supplemen	tal 70 deg sca	n to obtai	L
	_		—					•••	COV	/erage di	ie to weld	crown config	uration. Ri	sk informed
Percent Of Cove	erage Obtaine	d > 90%:	<u>No</u>	Reviewed Previou	s Data:	N/A			we	ld.				
Examiner	Level I			Signature	<u> </u>	Date Review	ver	·			gignati	lie 1		Date
Pollock, Norm	an E.		Noma	falle	4/2	6/2008 Jer	emy ?	Time	η	(	he E	to	5/1	3/08
Examiner	Level	N/A		Signature		Date Site R	eview '				Signati	ure	<i>π</i>	Date
N/A						Ph.1	INP E.B	LKes	<b>.</b>	Phil	lip Ci	Buken V.	May 13.	2008
Other	Level	N/A		Signature		Date ANII R		*	~		Signate	ne		Date
N/A						1-7	ames W.	N Iem	en (	) am	innu	emery	13MAY	R

		Suppleme	ental Repor	t		
Dominion						UT-08-246
					Page:	of
ummary No.: <u>KI.C5.61</u>	an an Raldy			(	1 al	
Examiner: Pollock, Nor	(man E		~	eremy Timm (	A A A	Date: 5/13/08
Examiner: <u>N/A</u>		Level: N/A		IIPE Buke Phill	40CTJURIO	
Other: <u>N/A</u>		Level: <u>N/A</u>	ANII Review: 🧃	ameswiniemeng 700	ate Marine	Date: 13maros
Comments: COVER	AGE PLOT				*	
Sketch or Photo:						
	AFW-W189					
	Weld Crown Wid	th: .70"				
Thiskness Measurements						
l295" 2281"	<b>C</b> 1					
3408"	Flow			(5.)		
4 <b>454"</b> 5847"				$\bigcirc$		
			( <b>4</b> .)			
		$\bigcirc$	3.	/		
1.		(2.)	CL			
		45/70	45/70	Fla	nge	
	45	45/70				
Pipe			X	1		
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Total Risk informed Examination	n Volume = .2295 sq	Inches
	e Upstream 100% 45 & 70 Degr re Also Performed on Flat top w		RUIIIII	Axial Examination Coverage I * 45 & 70 Degree Scans were	Downstream 100% 45 also performed on fla	5 & 70 degree at top weld.
Circ Examination Coverage L	100%			Circ Examination Coverage D	ounstroom (E9)	
With 45 degree and Supplem Clockwise and Counter Clock	ented by 60 degree skew scans			With 45 degree and Supplem Clockwise and Counter Clock * 45 and 60 degree Scans we Total Area = .1322 sq. Inches Area of Coverage = .0607 sq.	ented by 60 degree sl wise re also performed on	
				]		
		Examination Volume	Dimensions = Hieght = .10" Le	ength = 11.30" Width = 1.70"		
		Total Risk Informed E	xmaination Coverage Achieve	d		
		Axial Upstream 100% Cic Upstream 100% Axial Downstream 10 Circ Downstream 459	0%			

Total 345/4 = 87%



#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-29

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W190 Preservice Examination

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

#### 4. Impracticality of Compliance:

17.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W190 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 17.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W190 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W190 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

# FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

# RELIEF REQUEST NO: RR-G-5-29

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

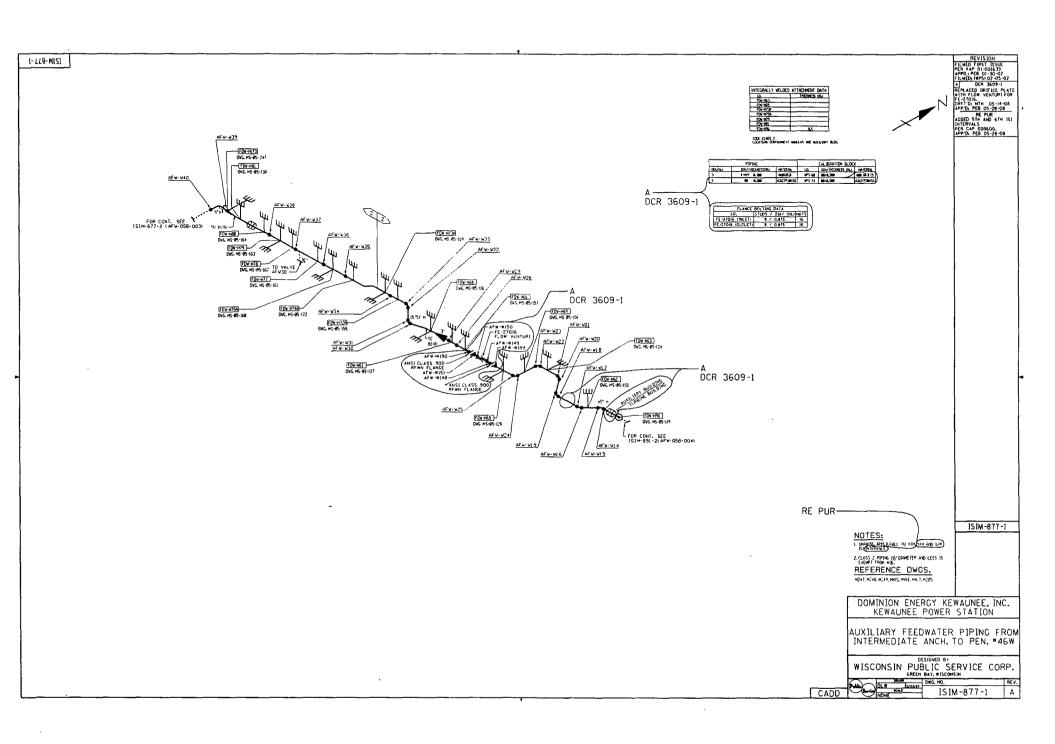
Not Applicable

<b>See</b> Somi	mion	Site/Unit:	KPS	/ 1			Proce	dure:	ER-AA-	NDE-UT-801	Rev. 0	_	Outage I	No.:	K1R29
	Su	mmary No.:	K1.	C5.61.189			Procedure	Rev.:		0			Report N	No.: U	T-08-252
	١	Norkscope:		PSI	<u></u>		Work Orde	r No.:		07-009669		_	Pa	ige: 1	of <b>1</b>
Code:	A	SME Sect. X	(  98 Ed/00 Add		Cat./Item:	:	C-F-2/C5.6	1		Location:		AU	XILIARY BUIL	DING	
Drawing No.:			ISIM-877-1			Description:	3" FLANGE	TO PIPE W	ELD						
System ID:	AFW - AU	JXILIARY FE	EDWATER PIPING	G FROM INTERM	EDIATE AN	юн. то р	EN. #46W								
Component ID:	ISIM-877	-1/AFW-W19	0						Size/	Length:	3"/10.99"		Thickness/Dia	ameter:	0.300"/3.5"
Limitations:	None									Start	Time:	1030	Finisl	n Time:	1039
	Instru	nent Setting	S		Search	n Unit		Cal.	<b>T</b> :	Data	<u> </u>	Δvia	Orientated S	earch Unit	
Serial No.:		01R5	NW	Serial No.:		SC0138		Checks	Time	Date	Calibi		Signal	Sweep	T
Manufacturer:		GE INSPE		Manufacturer:	ĸ	RAUTKRA	MER	Initial Cal.	0930	4/26/2008	Refle		mplitude %	Division	Sound Path
Model:	<del></del>	USN 60	····	Size:0	.25"	Shape:	ROUND	Inter. Cal.	1030	4/26/2008	ID N	otch	80%	5.0	.461"
Delay:	3.3775	Range:	.939"		MHZ	Style:		Inter. Cal. Inter. Cal.	N/A N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	45	•	ents: Single	Final Cal.	1530	4/26/2008					<u> </u>
Damping:	500 ohms		0%	Mode:		SHEAR	<u> </u>		L						<u> </u>
Rep. Rate:	Auto-High N/A	· •	5.0 MHZ Fullwave	Measured Ang	·	45			Couplar			Circumfor		ted Ceerch	<u> </u>
Filter: Voltage:	450	Mode: _ Other:	P/W-100	Wedge Style:		MSWQC		Cal. Batch:		07143 RACE 40		r ·	ential Orienta		T
Ax. Gain (dB):	19.0dB			_	Search Ur	ait Cable				ECH INC.	Calibi Refle		Signal Mplitude %	Sweep Division	Sound Path
10 Screen D			Sound Path	 Туре:		MCD: RG	-174		·		N	'A		· ·	<u>†                                    </u>
						Conn.:	0	Exam Batch		07143					
Linearity Report	I No.:	L-	08-003		Scan Co					RACE 40					
	Calib	ration Block				-		Mfg.: S	SONOTE	ECH INC.					
Cal. Block No.:	<u> </u>	WPS		Upstream 🔽		_	an dB: <u>31.0</u>	Ref	erence I	Block		Ref	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	_ cw 🖌	CC		an dB: <b>37.0</b>	Serial No.:	L	MT-111	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp.	: <b>70</b> Te	emp. Tool:	259564	Exam Surface		OD		Туре:	RON	IPAS	25.0	.3" SDH	44%	4.8	.452"
Comp. Temp.:	<b>72</b> Te	emp. Tool:	259564	Surface Cond	ition:	FLAT TO	OPPED								
Recordable In	dication(s):	Yes	🗌 No 🗹	(If Yes, Ref. Atta	ached Ultras	sonic Indica	tion Report.)								
Results:	Accept	🖌 Reje	ect	Info ·					Co	omments: 0 c	leg lamin	ation scan	performed. R	isk informe	d weld.
Percent Of Cov	erage Obtai	ned > 90%:	No	Reviewed Pre	evious Data:		N/A								·
Examiner	Level	 \\		Signature			Date Review	/er	_			7 Signati	119-7		Date
Pellock, Norm	an E.		Non	n Pallin		4/26/2	2008 Jere	my Tim	M		Chr	the		57	13/08
Examiner	Level	N/A		Signature			Date Site Re				21	Signati		-04	Date
N/A								<u>PE.Bu</u>	Kes		Thell		ukes	May 13	2008
Other	Level	N/A		Signature		I	Date ANII R			~	<u> </u>	Signat		<i>v</i> –	Date
N/A								umes W. A	Jiemen	19	) an	uur(	cemery	13 MA	808

	inion	Site/Unit:	KPS	/ 1			Procedure:		ER-AA-	NDE-UT-801	Rev. 0	_	Outage I	<u> </u>	K1R29
	Su	mmary No.:	K1	.C5.61.189		Pro	cedure Rev.:			0		-	Report I		Г-08-253
	١	Norkscope:		PSI		Wor	k Order No.:			07-009669		-	Pa	ige: <u>1</u>	of <u>1</u>
Code:	A	SME Sect. X	(198 Ed/00 Add		Cat./item:		2/C5.61		_	Location:		AU	IXILIARY BUIL	.DING	
Drawing No.:			ISIM-877-1		Des	cription: 3" Fl	ANGE TO	PIPE W	ELD	<u></u>					
System ID:	AFW - AL	JXILIARY FE	EDWATER PIPIN	G FROM INTERME	DIATE ANCH	I. TO PEN. #40	W								
Component ID:	ISIM-877	-1/AFW-W19	0						Size/l	_ength:	3"/10.99"		Thickness/Di	ameter:	).300"/3.5"
Limitations:	None									Sta	rt Time:	1240	Finis	h Time:	1249
		ment Setting			Search U	nit			1			A		eenek (Init	
Serial No.:	Instrui	01R5		Serial No.:		C0138		Cal. necks	Time	Date			al Orientated S		<u>г                                    </u>
Manufacturer:		GE INSPI		Manufacturer:		UTKRAMER	Initi	al Cal.	0940	4/26/2008	Calibr		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 6				ape: ROUN	~~ <u></u>	r Cal.	1240	4/26/2008	ID N	otch	80%	5.0	.600"
Delay:	4.9966	Range:	1.2"	Freq.: 5.0 N	I <b>HZ</b> S	tyle: COMF	··u }	r. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	60 #	of Elements:	single ——	al Cal.	N/A 1540	4/26/2008	╣┝────			· · · · · · · · · · · · · · · · · · ·	
Damping:	500 ohms		0%	Mode:	SH	EAR					<sup>ال</sup>				<u> </u>
Rep. Rate:	Auto High	· · · ·	5.0 MHZ	Measured Angle		59			Couplar	07143		Circumfe	erential Orienta	ated Search	Unit
Filter:	N/A 450	Mode: Other:	Fullwave P/W-100	Wedge Style:		ASWQC	Са. Тур	Batch:		RACE 40	- Calib		Signal	Sweep	1
Voltage: Ax. Gain (dB):		Circ. Ga			Search Unit	Cable	Mfg			ECH INC.	- Refle		Amplitude %	Division	Sound Path
			Sound Path	 Туре:		CD: RG-174		m Batcl		07143	- N	Ά			
10 Screen I				Length: 6'						07145 RACE 40	-				
Linearity Repor			08-003		Scan Cove	rage	Mfg			ECH INC.					
		oration Block		Upstream		Scan dB:	_				-	Re	ference/Simul	ator Block	
Cal. Block No.: Thickness:	0.300"	WPS Dia.:	3"	CW 🔽		☑ ☑ Scan dB:	44.5		erence	Block MT-111	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp			259564	Exam Surface:		 OD	Sell	al No.:		MPAS	dB	Reflecto			ļ
Comp. Temp.:		emp. Tool:	259564	Surface Conditi	on:	FLAT TOPPED	Тур )	e:				.3" SDI	H 70%	5.0	.605"
Recordable in		-	s 📋 No 🖌	 (If Yes, Ref. Attac	hed Ultrasor	ic Indication R	eport.)					<u>├</u>			
			iect	Info					с	omments:	Performed :	skewed s	can in the circ	umferentia	direction.
Results:	Accept								_	١	Weld root s	ignal note	ed when skew		
Percent Of Co	verage Obta	ined > 90%:	No	Reviewed Prev	ious Data:	N/A					informed w	eiu.			
Examiner	Level	11		Signature		Date	Reviewer					Signa	ature		Date
Pollock, Nori	man E.		Nou	n Pollip		4/26/2008	Jerem	1	mm				nin	5	13/08
Examiner	Level	N/A		Signature		Date	Site Review		. 1/	-	SI	Signa	ature Bukas	M	Date
N/A							Phillip ANU BOVIO		ures	>	TN	Signer	ature	may 1	3, <b>3008</b> Date
Other	Level	N/A		Signature		Date	ANII Review		مسمرا	$\sim$	Dame		ature	1311197	<b>*8</b>
N/2						l	-ame	5 Wil	Jent	<u></u>			<u> </u>		<u> </u>

<b>.</b>	iniori	Site/Unit:	KPS	1	1	ounora		Procedure:	ER-AA	-NDE-UT-80	1 Rev. 0		Outage	No	K1R29
<b>200</b> 0, 00,0200		nmary No.:		K1.C5.61.189	<u></u>			edure Rev.:		0			Report		T-08-254
		/orkscope:		PSI			Work	Order No.:		07-009669			•	Page: 1	of <b>1</b>
Code:	A	SME Sect. X	1 98 Ed/00 Add		Ca	ut./Item:	C-F-2			Location:		A	UXILIARY BUI		
Drawing No.;			ISIM-877-1		-	Descriptio	on: 3" FL		WELD	—	<del>;·</del>			······	
System ID:	AFW - AU		EDWATER PIP	ING FROM IN	TERMEDIA	TE ANCH. TO	PEN. #46\	N							
Component ID:	ISIM-877-	1/AFW-W19	0						Size	Length:	3"/10.99"		Thickness/D	)iameter:	0.300"/3.5"
Limitations:	None					<u> </u>			-	·	rt Time:	 1350		sh Time:	1359
Coriol No. :	Instrum	ent Setting 01R51		0.11		Search Unit	~	Cal. Checks	Time	Date		Axi	al Orientated	Search Unit	
Serial No.: Manufacturer:	·	GE INSPE		Serial N Manufa		SC024 KRAUTKI		Initial Ca		4/26/2008		ration ector	Signal Amplitude %	Sweep Division	Sound Path
Model:	<u> </u>	USN 60		Nanula Size:	0.25"	Shape:	ROUNE	Inter. Ca	1350	4/26/2008		otch	80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.:	5.0 MHZ		COMP-0	G Inter. Ca	I. N/A						
M'ti Cal/Vel:	.1268	Pulser:	Square	Exam A	ngle:	70 # of El	ements: Si		_						
Damping:	500 ohms	_ Reject:	0%	Mode:		SHEAR		Final Ca	1550	4/26/2008	<u>الا</u>				
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ		ed Angle:		<u>.</u>		Coupla					L	
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		Circ Downstream 32%
		Total 332/4 = 83%



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-30

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W191 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

## 4. Impracticality of Compliance:

15.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W191 was inaccessible due to Pipe to Flange Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 15.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W191 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W191 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-30

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

Not Applicable

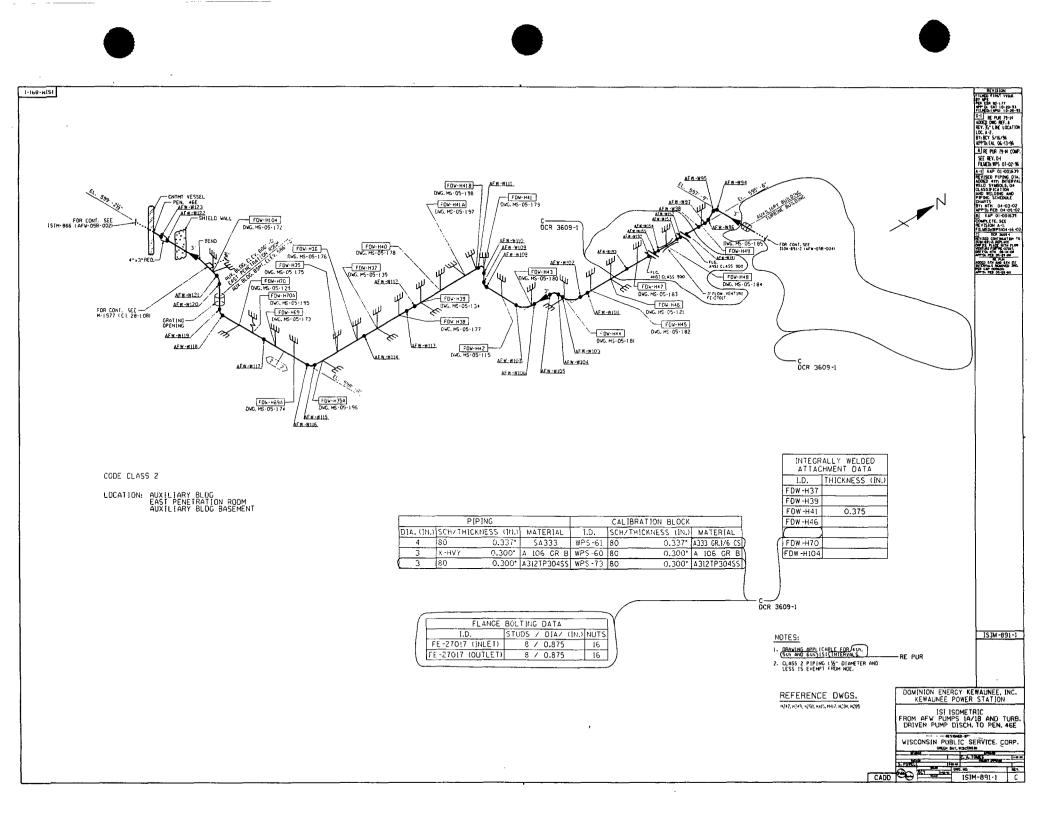


<b>and </b> Som	inion	Site/Unit:	KPS	1	1		Pro	cedure:	ER-AA-	NDE-UT-80	l Rev. 0		Outage	No.:	K1R29	
	Sur	mmary No.:	к	1.C5.61.190			Procedu	re Rev.:		0		-	Report	No.: L	T-08-255	į
	v	Vorkscope:		PSI			Work Or	der No.:		07-009669		-	Pa	age: 1	of	1
Code:	A	SME Sect.	XI 98 Ed/00 Add		Ca	at./Item:	C-F-2/C5	.61		Location:		AUX		DING		
Drawing No.:			ISIM-891-1			Descriptio	on: 3" PIPE T	O FLANGE W	- /ELD							
System ID:	AFW - FR	IOM AFW F	UMPS 1A/1B AN	D TURB. DRIV		P DISCH. TO PI	EN. 46E									
Component ID:	ISIM-891-	1/AFW-W1	91				······		Size/	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.	5"
Limitations:	None									Sta	rt Time:	1040	Finis	h Time:	1049	
	 Instrun	nent Settin	gs			Search Unit		Cal.				۸vial	Orientated S	earch Unit		
Serial No.:		01R5	5NW	Serial No	.:	SC013	8	Checks	Time	Date	Calibr	<u> </u>	Signal	Sweep		
Manufacturer:	_	GE INSP	ECTION	Manufac	turer:	KRAUTKI	RAMER	Initial Cal.	0930	4/26/2008	Refie		mplitude %	Division	Sound	Path
Model:		USN 6		Size:	0.25"	Shape:	ROUND	Inter. Cal.	1040	4/26/2008	ID N	otch	80%	5.0	.461	4
Delay:	3.3775	Range:	.939"	Freq.:	5.0 MH	Z Style:	COMP-G	Inter. Cal.	N/A N/A		-					
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam An	gle:		ements: Singl	Final Cal.	1530	4/26/2008	┨╞────					
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR		-	<u>ا</u> ـــــ		┛╞────			<u> </u>		
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measure	-		15	_	Couplar						1	
Filter:	N/A	- Mode: Other:	Fullwave P/W-100	Wedge S	Style:	MSW	20	Cal. Batch:	_	07143	-		ential Orienta	ated Search	n Unit	
Voltage:	450 19.0dB	_	•**		0		_	· · · · · · · · · · · · · · · · · · ·			- Calibr Refle		Signal Amplitude %	Sweep Division	Sound	Path
Ax. Gain (dB):		_	Sound Path			arch Unit Cable		Mfg.:	SONOTE	ECH INC.						<u> </u>
10 Screen [	Div. = .939	in. of	Sound Faul	Type:		No. Conn.:		Exam Batcl		07143	-					
Linearity Repor	t No.:	L	-08-003	Length:		_		· · · ·		RACE 40	-					
	Calibr	ration Bloc	k		S	can Coverage		Mfg.:	SONOTE	ECH INC.	-			······		
Cal. Block No.:		WPS	5-60	Upstream	n 🗹 🛛 Dor	wnstream 🖌 S	Scan dB: <b>31.0</b>	- Ref	erence I	Block		Refe	erence/Simul	ator Block		
Thickness:	0.300"	Dia.:	3"	CV	/ 🖌	ccw 🔽 🤘	Scan dB: <b>37.0</b>			MT-111	Gain		Signal	Sweep	Sound	Path
Cal. Blk. Temp	.: <b>70</b> Te	mp. Tool: _	259564	Exam Su	rface:	0	D	_ Type:		/PAS	- dB 25.0	Reflector .3" SDH	Amplitude %	6 Division 4.8	.452	
Comp. Temp.:	<u>60</u> Te	mp. Tool:	259564	Surface	Condition:	FLAT	TOPPED	_			-	.0 0011	44/0	4.0	.452	·
Recordable In	dication(s):	Ye	s 🔲 🛛 No 🖌	(If Yes, Re	f. Attache	d Ultrasonic Ind	ication Report.	)								
Results:	Accept 🖌	] Rej	ject 🗌	Info 📋					Co	omments: 0	deg lamina	ation scan	performed. F	Risk inform	ed weld.	
Percent Of Cov	verage Obtair	ned > 90%:	No	Reviewe	d Previou	s Data:	N/A								1	
Examiner	Level	11		Signature			Date Revi	ewer				7 Signatu	ITE		0	Date
Pollock, Norm	nan E.		Noma	Pallel		4/2	6/2008 Jer	Emy Tim	m		(h	the	9	5/1.	3/08	
Examiner	Level	N/A		Signature				Review			.01	Signati			C	Date
N/A						<u> </u>		ILP E.B.	LKes		Thu		Bukes M	lay 13,.	008	
Otiller	Level	N/A		Signature				Review			$\frown$	Signati	lite	0	C	Date
N/4								ames W. A.	liemer	<u>y</u> (		rmilit	lieming	13MA	108	

<b>De Comi</b>	mion <sup>(</sup>	Site/Unit:	KPS	/ 1 Procedure:			Procedure:	ER-AA-	NDE-UT-801	Rev. 0				K1R29	
	Sum	nary No.:	K1.	.C5.61.190		Pro	cedure Rev.:		0			Report	No.: U	T-08-257	
	Wo	rkscope:		PSI		Wor	*k Order No.:		07-009669		_	P	age: 1	of 1	
Code:	ASI	IE Sect. XI	98 Ed/00 Add		Cat./Item:	C-F-	·2/C5.61		Location:		AUX	XILIARY BUI	LDING		
Drawing No.:			ISIM-891-1	······································	Descri	ption: 3" Pl	PE TO FLANGE W	/ELD							
System ID:	AFW - FRO	M AFW PU	MPS 1A/1B AND	TURB. DRIVEN PU	MP DISCH. TO	PEN. 46E									
Component ID:	ISIM-891-1/	AFW-W191						Size/	Length:	3"/10.99"	•	Thickness/D	iameter:	0.300"/3.5"	
Limitations:	None								Start	Time:	1250	Finis	h Time:	1259	
	Instrume	nt Settings			Search Unit										
Serial No.:		01R5N	w	Serial No.:	SCO		Cal. Checks	Time	Date	<u> </u>	·····	Orientated S			
Nanufacturer:		GE INSPE	CTION	Manufacturer:	KRAUT	KRAMER	Initial Cal.	0940	4/26/2008	Calibr Refle		Signal Mplitude %	Sweep Division	Sound Path	
Model:		USN 60	sw		25" Shape	e: ROUN		1250	4/26/2008	ID No	otch	80%	5.0	.600"	
Delay:	4.9966	Range:	1.2"	Freq.: 5.0 N	MHZ Style	e: COMP		N/A							
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	# of	Elements: S		N/A	4/05/0000						
Damping:	500 ohms	Reject	0%	Mode:	SHEA	R .	Final Cal.	1540	4/26/2008					<u> </u>	
Rep. Rate:	Auto High	Freq.:	5.0 MHZ	Measured Angle	e:	59		Couplar	nt	<u> </u>					
Filler:	N/A	Mode:	Fullwave				Cal. Batch:		07143		Circumfer	ential Orient	ated Search	Unit	
Voluge:	450 Other: <b>P/W-100</b>						Туре:	SONOTI	RACE 40	Calibr		Signal	Sweep	Sound Path	
Ax. Gain (dB):	32.5	Circ. Gain	(dB): <u>N/A</u>	Search Unit Cable			Mfg.:	SONOTE	ECH INC.	Refle	ctor A	Amplitude % Divisi		Sound Fain	
10 Screen D	iv. = <b>1.2</b>	in. of	Sound Path	Туре:	BNC to MCD	): RG-174	Exam Batch	1:	07143	N/	A			·	
Linearity Report	No.:	L-0	8-003	Length: 6	No. Con	n.: <u>0</u>	Type:	SONOTI	RACE 40	<u> </u>					
	Calibrat	ion Block			Scan Coverag	je	Mfg.:	SONOTE	ECH INC.						
Cal. Block No.:		WPS-6	50	Upstream []	Downstream	Scan dB:	N/A Bef	erence l	Block		Refe	erence/Simul	ator Block	L	
Thickness:	0.300"	Dia.:	3"	cw 🔽	ccw 🖌	Scan dB:			MT-111	Gain		Signal	Sweep	Sound Path	
Cal. Blk. Temp.:	70 Tem	o. Tool:	259564	Exam Surface:		OD	Type:	<u> </u>	MPAS	dB 32.5	Reflector .3" SDH	Amplitude %	6 Division 5.0	.605"	
Comp. Temp.:	60 Temp	o. Tool:	259564	Surface Conditi	ion: <u>FL</u> /	AT TOPPED				32.5	.3 301	70%	5.0	.005	
Recordable Inc	lication(s):	Yes	No 🖌	(If Yes, Ref. Attac	ched Ultrasonic	Indication Re	eport.)					1	1		
Results:	Accept 🖌	Rejec	x 🔲	Info				Co				an in the circ			
Percent Of Cove	erage Obtaine	d > 90%:	No	Reviewed Prev	rious Data:	N/A				eld root si ormed we	-	when skew	ed towards	weld. Risk	
Examiner	Level I			Signature		Date	Reviewer				∧ Signat	Ire		Date	
Pollock, Norm	an E.		noral	faller		4/26/2008	Jaremy Tin	nm		4	the	5	5	13/08	
Examiner	Level	Į∕A		Signature		Date	Site Review				Signati	Jre	<b>A</b>	Date	
N/A							Ph.11, PE. 1	Buke	5	Phil		C Bukes	, May 1	3 3008	
Chine	Level	I/A		Signature			ANII Review			Signature		Date			
N/							-lames W, M	U, Niemera			James W Kiemerg			1341778	

Site/Unit:     KPS     /     1     Procedure:     ER-AA-NDE-UT-801 Rev. 0     Outage No.:     K1       Summary No.:     K1.C5.61.190     Procedure Rev.:     0     Report No.:     UT-0       Workscope:     PSI     Work Order No.:     07-009669     Page:     1       Code:     ASME Sect. XI 98 Ed/00 Add     Cat./Item:     C-F-2/C5.61     Location:     AUXILIARY BUILDING       Drawing No.:     ISIM-891-1     Description:     3" PIPE TO FLANGE WELD     V     V       System ID:     AFW - FROM AFW PUMPS 1A/1B AND TURB, DRIVEN PUMP DISCH. TO PEN. 46E     Size/Length:     3"/10.99"     Thickness/Diameter:     0.3       Limitations:     None     Size/Length:     3"/10.99"     Thickness/Diameter:     0.3       Instrument Settings     Search Unit     Cat     Cat     Cat     Cat
Code:       ASME Sect. XI 98 Ed/00 Add       Cat./Item:       C-F-2/C5.61       Location:       AUXILIARY BUILDING         Drawing No.:       ISIM-891-1       Description:       3" PIPE TO FLANGE WELD       ISIM-891-1       Size/Length:       3"/10.99"       Thickness/Diameter:       0.3         System ID:       ISIM-891-1/AFW-W191       Size/Length:       3"/10.99"       Thickness/Diameter:       0.3         Limitations:       None       Start Time:       1400       Finish Time:       I
Drawing No.:     ISIM-891-1     Description:     3" PIPE TO FLANGE WELD       System ID:     AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E       Component ID:     ISIM-891-1/AFW-W191       Mone     Size/Length:     3"/10.99"       Thickness/Diameter:     0.3       Limitations:     None
System ID:       AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Component ID:       ISIM-891-1/AFW-W191         Limitations:       None         Start Time:       1400
Component ID:       ISIM-891-1/AFW-W191       Size/Length:       3"/10.99"       Thickness/Diameter:       0.3         Limitations:       None       Start Time:       1400       Finish Time:
Limitations: None Start Time: 1400 Finish Time:
Serial No: 01R5NW Serial No: 900240 Checks Checks
Manufacturer:     GE INSPECTION     Manufacturer:     KRAUTKRAMER     Initial Cal.     0950     4/26/2008     Calibration     Signal     Sweep     Stress
Model:         USN 60 SW         Size:         0.25"         Shape:         ROUND         Inter. Cal.         1400         4/26/2008         ID Notch         80%         5.0
Delay:         6.6259         Range:         1.94"         Freq.:         5.0 MHZ         Style:         COMP-G         Inter. Cal.         N/A
M'tl Cal/Vel: .1268 Pulser: Square Exam Angle: 70 # of Elements: Single Inter. Cal. N/A
Damping:         500 ohms         Reject:         0%         Mode:         SHEAR         Final Cal.         1550         4/26/2008
Rep. Rate:     Auto-High     Freq.:     5.0 MHZ     Measured Angle:     69     Couplant
Filter: N/A Mode: Fullwave Wedge Style: MSWQC Cal. Batch: 07143 Circumferential Orientated Search Ur
Voltage:     450     Other:     P/W-100     Type:     SONOTRACE 40     Calibration     Signal     Sweep       Ax     Gain (dB):     42.3     Circ     Gain (dB):     N/A     Search Unit Cable     Mfa :     SONOTECH INC     Reflector     Amplitude %     Division     Search Unit Cable
Creen Div. 2 hit. or hype Diversity of the model o
Linearity Report No.: L-08-003 Length: 6' No. Conn.: 0 Type: SONOTRACE 40
Calibration Block Scan Coverage Mfg.: SONOTECH INC.
Cal. Block No.: Upstream 🖌 Downstream 🖌 Scan dB: 48.3 Reference Block Reference/Simulator Block
Thickness: 0.300" Dia.: 3" CW CCW Scan dB: N/A
Cal. Blk. Temp.:       70       Temp. Tool:       259564       Exam Surface:       OD       Type:       ROMPAS       42.3       .3" SDH       60%       4.8
Comp. Temp.: 60 Temp. Tool: 259564 Surface Condition: FLAT TOPPED
Recordable Indication(s): Yes No 🔽 (If Yes, Ref. Attached Ultrasonic Indication Report.)
Results: Accept 🖌 Reject 🗌 Info 🗌 Comments: Performed supplemental 70 deg scan to obtain co
Percent Of Coverage Obtained > 90%: No Reviewed Previous Data: N/A weld.
Examiner Level II Signature Date Reviewer
Pollock, Norman E. Norma Paller 4/26/2008 Jeremy Timm for the 5/13
Examiner Level N/A Signature Date Site Review Signature Signature Phillip A Autor Maul 3 2
N/A     Ph.II.P E. Bukes     Ph.Up C. Bukes       Other     Level N/A     Signature     Date     ANII Review     Signature
WA Janes Wi Niewerg Janu Wiemery 13 MAY

		5	Suppleme	ental Repo	ort			
Domir	nion					Report No.:	UT-UB	-25
						Page:	of	1
Summary No.:	KI.C.S.61.	190	12 11 - 12			1.0		
Examiner:	Pollock , N	orman E.		Reviewer:	Jeremy Tim,	n atto	Date: 5/13	3/08
Examiner:			Level: N/A	Site Review:	Phillip E. Bukes,	Phillip C Buke		
Other:					James W. Niomeng			
Commen	<sup>its:</sup> COVERA	CE PLAT	na n	17 - 17 - 17 - 17 - 17 - 17 - 17 - 17 -				
	COVERA	GE FLUI						
Sketch or Pho	to:							
		AFW-W191						
		Weld Crown Widt	h: .70"					
Thiskness Me 1298"	easurements							
2295"		Flow	~					
3400" 4450"		11000			(5.	)		
5800"								
				( <b>4</b> .)				
				3.	# <sup>2</sup> 81	/		
(1.)			(2.)	CL				
Ŭ						Flange		
		45	45/70	70 45/70				
Pipe			V-V	XX				
				~~~				
				~~~~~~	Total Risk informed Fi	amination Volume = .2297	so Inches	
			a and a second sec	********			ay. mones	
	Axial Examination Covera	ge Upstream 100% 45 & 70 Degre vere Also Performed on Flat top we			Axial Examination Co	verage Downstream 100%	45 & 70 degree	
		are ruse r enormed on r lat top we			* 45 & 70 Degree Sci	ans were also performed on	flat top weld.	
N C	Clockwise and Counter Clor	mented by 60 degree skew scans	li l		With 45 degree and 5 Clockwise and Count	cans were also performed o		
			××××××××	~~~~~				
			Examination Volume	Dimensions = Hieght = .10	0" Length = 11.30" Width = 1.	70"		
			Total Risk Informed Axial Upstream 100	Exmaination Coverage Act	hieved			
			Cic Upstream 100% Axial Downstream 1	00%				
			Circ Downstream 41 Total 341/4 = 85%	.%				
			· · · · · · · · · · · · · · · · · · ·					



### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-31

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W192 Preservice Examination

### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

### 4. Impracticality of Compliance:

17.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W192 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 17.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W192 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W192 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

`1

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-31

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

Not Applicable

1.

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<b>.</b>	inion	Site/Unit:	KPS	/ 1	Jourisia	Proc	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage I	<b>vio.</b> :	K1R29
		mary No.:	K1	.C5.61.191		Procedure	Rev.:		0		-	Report N	vo.: U	T-08-259
	w	orkscope:		PSI		Work Orde	er No.:	<u> </u>	07-009669		_	Pa	ige: <b>1</b>	of <b>1</b>
Code:	AS	ME Sect. )	(I 98 Ed/00 Add		Cat./Item:	C-F-2/C5.6	51 51		Location:		AU	XILIARY BUIL	DING	
Drawing No.:	<u> </u>		ISIM-891-1		Descriptic	on: 3" FLANG		VELD						
System ID:	AFW - FR	OM AFW P	UMPS 1A/1B AND	TURB. DRIVEN PU	MP DISCH. TO PI	EN. 46E								
Component ID:	ISIM-891-1	I/AFW-W19	)2					Size/	Length:	3"/10.99"		Thickness/Dia	ameter:	0.300"/3.5"
Limitations:	None								Start	Time:	1050	Finisl	n Time:	1059
					Occash Usit									
Serial No.:	instrum	ent Setting 01R5		Corial No. (	Search Unit	•	Cal. Checks	Time	Date		Axia	Orientated S	earch Unit	
Manufacturer:		GE INSPI		Serial No.: Manufacturer:	SC013		Initial Cal.	0930	4/26/2008	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 6		Nianandotalien: Size: 0.2		ROUND	Inter. Cal.	1050	4/26/2008	ID N		80%	5.0	.461"
Delay:	3.3775	Range:	.939"	Freq.: 5.0 M	· -	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	45 # of El	ements: Single	Inter. Cal.	N/A						
Damping:	500 ohms	_ Reject:	0%	Mode:	SHEAR		Final Cal.	1530	4/26/2008					
Rep. Rate:	Auto-High	_ Freq.:	5.0 MHZ	Measured Angle		45		Couplar	nt	<u> </u>		<u>l</u>	<u> </u>	
Filter:	N/A	_ Mode:	Fullwave	Wedge Style:	MSWO	QC	Cal. Batch:	tch: 07143 SONOTRACE 40			Circumfe	rential Orienta	ted Search	Unit
Voltage: Ax. Gain (dB):	450 19.0dB	_ Other: Circ. Gai	P/W-100		Casuah Unit Cahl	_				Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
		-	Sound Path	Type:	Search Unit Cable BNC to MCD: F		Mfg.:	SONOTE		N				<u>+</u>
10 Screen [				iype. Length: 6'			Exam Batc		07143					
Linearity Repor	t No.:	L-	08-003		Scan Coverage			SONOT						
		ation Block			-		Mfg.:	SONOTE						
Cal. Block No.:	·····	WPS		Upstream 🔽 🛛 CW 🔽	Downstream S		Ret	ierence E	Block		Ref	erence/Simula		· · · · · · · · · · · · · · · · · · ·
Thickness:	0.300"	Dia.:	<u>3"</u> 259564			Scan dB:	Serial No.:	U	MT-111	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp		np. Tool:	259564	Exam Surface: Surface Conditi		TOPPED	Туре:	RON	IPAS	25.0	.3" SDH	44%	4.8	.452"
Comp. Temp.: Recordable in		· -			ched Ultrasonic Ind								<u> </u>	
					med Offasonic ind	ication nepon.)					L		<u> </u>	L
Results:	Accept 🖌	Rej	ect	Info 📋				Co	omments: 0 d	leg lamina	ation scan	performed. R	isk informe	ed weld.
Percent Of Cov	verage Obtain	ed > 90%:	No	Reviewed Prev	ious Data:	N/A	· · · · · · · · · · · · · · · · · · ·							
Examiner	Level	ll	······································	Signature		Date Review	_	-	· · · · · · · · · · · · · · · · · · ·	/	Signat	19		Date
Pollock, Norn			Nonar 1	Pollic	4/2	26/2008 Je	iemy i	1.mm	۱ <u> </u>		the		5/1	3/08
Examiner	Level	N/A		Signature		Date Site R	eview	•.		-01	Signat		- -	Date
N/A	l evel			Signature			IPE.B	ukes		The	lp Ct		<u> May 13</u>	3,200 B
Other N/A	Level	N/A		Signature			ieview	1 <b>111</b> 11111		)	Signatu UN CC		- 	Date
								iner q		2	n i a	<u> </u>	13MAYO	δ

<b>Sen</b> i	mion	Site/Unit:	KPS	/ 1		Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage	No.:	K1R29
	Su	mmary No.:	K	1.C5.61.191		Procedure	Rev.:		0		_	Report I	No.: U	T-08-260
	١	Norkscope:		PSI		Work Orde	er No.:		07-009669		_	Pa	age: <b>1</b>	of <b>1</b>
Code:	A	SME Sect.)	(I 98 Ed/00 Add		Cat./Item:	C-F-2/C5.6	;1		Location:		AU		DING	
Drawing No.:			ISIM-891-1		Descript	ion: 3" FLANGI	E TO PIPE W	/ELD						
System ID:	AFW - FF	ROM AFW P	UMPS 1A/1B AND	TURB. DRIVEN PUN	AP DISCH. TO F	'EN. 46E								
Component ID:	ISIM-891	-1/AFW-W1	92					Size/	Length:	3"/10.99"		Thickness/Di	ameter:	0,300"/3.5"
Limitations:	None								Star	t Time:	1300	Finis	h Time:	1309
	Instru	ment Setting	js		Search Unit		Cal.				۸via	Orientated S	earch Unit	_
Serial No.:		01R5	NW	Serial No.:	SC01	38	Checks	Time	Date	Calibr		Signal	Sweep	<u>r — – – – – – – – – – – – – – – – – – – </u>
Manufacturer:		GE INSP	ECTION	Manufacturer:	KRAUTK	RAMER	Initial Cal.	0940	4/26/2008	Refle		Amplitude %	Division	Sound Path
Mode:		USN 6		Size:0.25	Shape:	ROUND	Inter. Cal.	1300	4/26/2008	ID No	otch	80%	5.0	.600"
Delay	4,9966	Range:	1.2"	Freq.: 5.0 M	,	COMP-G	Inter. Cal.	N/A	· · · · · · · · · · · · · · · · · · ·					
M'ti Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	60 # of E	lements: Single	Inter. Cal. Final Cal.	N/A 1540	4/26/2008				······	
Damping:	500 ohms	·	0%	Mode:	SHEAR				·	ı				
Rep. Rate:	Auto High	<u> </u>	5.0 MHZ	Measured Angle		59		Couplai					·	
Filter:	N/A	Mode:	Fullwave	Wedge Style:	MSW	/QC	Cal. Batch:		07143	.	Circumfe	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100					_	RACE 40	Calibr		Signal Amplitude %	Sweep	Sound Path
Ax. Gain (dB):	32.5	Circ. Ga	· · ·		earch Unit Cab		Mfg.:	SONOTI	ECH INC.	. Refle		Amplitude %	Division	
10 Screen D	Div. = 1.2	<sup>2</sup> in. of _	Sound Path	Туре:	BNC to MCD:	RG-174	Exam Batcl	n:	07143	N/	A	· ·		
Linearity Report	t No.:	Ŀ	08-003	Length:6'	No. Conn.	0	Type:	SONOT	RACE 40					
	Calib	ration Bloc	c		Scan Coverage		Mfg.:	SONOTI	ECH INC.					+
Cal. Block No.:		WPS	-60	Upstream 🔲 🛛	Downstream	Scan dB: N/A	Ref	erence	Block		Refe	erence/Simula	ator Block	. <b>I</b>
Thickness:	0.300"	_ Dia.: _	<b>3</b> "	cw 🖌	ccw 🗹	Scan dB: 44.5	Serial No.:	L	MT-111	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <u>70</u> Te	emp. Tool: _	259564	Exam Surface:		00	Type:	-	MPAS	. dB 32.5	Reflector	Amplitude %	Division 5.0	.605"
Comp. Temp.:	<u>60</u> Te	emp. Tool:	259564	Surface Conditio	on: <b>FLA</b>	TOPPED	<i></i>			. 02.0	.0 0011	10/8		.003
Recordable In	dication(s)	: Yes	8 🗌 🛛 No 🗹	(If Yes, Ref. Attack	ned Ultrasonic In	dication Report.)								
Results:	Accept	🖌 Rej	ect 🗌	Info 🗌				C				an in the circu d when skewe		
Percent Of Cov	rerage Obtai	ned > 90%:	No	Reviewed Previe	ous Data:	N/A				formed we	-	a when skewe		Weld. hisk
Examiner	Level	LI		Signature		Date Review	ver		······································		Signat			Date
Pellock, Norm	an E.		Van	a Paller_	4/	26/2008 Je	remy T	imm			h le	no -	ء	13/08
Examiner	Level	N/A		Signature		Date Site R	eview				Signati	ure		Date
N/A						Ph.1		<u>ikes</u>		Phy	llip C T	Bulles 1	May 13	2008
Other	Level	N/A		Signature		Date ANII F		•		$\overline{}$	Signati	ure		Date
N/A	_					1	umes Wik	)iemei	rq C	)am	wh	cemery	13MAY	8

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<b>Ser</b> torni	inion	Site/Unit:	KPS	/ 1			Proc	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage I	No.:	K1R29
	Su	mmary No.:	<b>K</b> 1	.C5.61.191			Procedure	e Rev.:		0			Report I	No.: U	T-08-261
	,	Workscope:		PSI			Work Ord	er No.:		07-009669		_	Pa	ige: 1	of <b>2</b>
Code:	A	SME Sect. XI	98 Ed/00 Add		Cat./Ite	em:	C-F-2/C5.	61	·	Location:		AU		DING	
Drawing No.:			ISIM-891-1			Description	: 3" FLANG	E TO PIPE V	WELD		<u></u>				
System ID:	AFW - F	ROM AFW PU	MPS 1A/1B AND	TURB. DRIVEN	- PUMP DIS	CH. TO PEI	N. 46E								
Component ID:	ISIM-891	-1/AFW-W192	<u></u>						Size/	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None			<u></u>	······································	_=				Start	Time:	1410	Finis	h Time:	1419
	Instru	ment Settings			Sear	ch Unit									
Serial No.:		01R5N		Serial No.:	•	SC0240		Cal. Checks	Time	Date			Orientated S	earch Unit	
Manufacturer:		GE INSPE	CTION	Manufacturer	:	KRAUTKR	AMER	Initial Cal.	0950	4/26/2008	Calibr Refle		Signal	Sweep Division	Sound Path
Model:		USN 60	sw	Size: 0	).25"	Shape:	ROUND	Inter. Cal.	1410	4/26/2008	ID No		80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.: 5.0	) MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M't! Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	70	# of Ele	ments: Single		N/A	4/00/0000					
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR	<u>.</u>	Final Cal.	1550	4/26/2008					<u> </u>
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured An	gle:	69	· · · · · · · · · · · · · · · · · · ·		Couplai	nt					
Filter:	N/A	Mode:	Fullwave	Wedge Style:		MSWQ	<u>c</u>	Cal. Batch		07143		Circumfer	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100					···		RACE 40	Calibr Refle		Signal	Sweep Division	Sound Path
Ax. Gain (dB):	42.3	Circ. Gain	· · ·			Unit Cable		Mfg.:	SONOTI	ECH INC.	N		Ampinuue 76	Division	
10 Screen D	Div. =	4 in. of	Sound Path	Туре:		to MCD: RO		Exam Batc	h:	07143		<u> </u>			+
Linearity Report	t No.:	L-0	8-003	Length:	<u> </u>	No. Conn.:	0	Туре:	SONOT	RACE 40	<b></b>			·····	
	Calib	ration Block			Scan C	Coverage		Mfg.:	SONOTE	ECH INC.					<u>†                                    </u>
Cal. Block No.:		WPS-	50	Upstream 🖌	Downstr	ream 🖌 So	an dB: <b>48.3</b>	Re	ference i	Block		Ref	erence/Simula	tor Block	
Thickness:	0.300"	Dia.:	3"	cw 🗌	C	cw∏ sa	an dB: N/A	Serial No.:	L	MT-111	Gain	Deflecte	Signal	Sweep	Sound Path
Cal. Blk. Temp.	.: <u>70</u> Te	emp. Tool:	259564	Exam Surface	e:	OD		Type:	ROM	//PAS	dB 42.3	Reflector .3" SDH	Amplitude %	Division	.930"
Comp. Temp.:	<u>60</u> Te	emp. Tool:	259564	Surface Cond	dition:	FLAT T	OPPED				72.0	.0 0011	0078		.300
Recordable In	dication(s)	: Yes	✓ No □	(If Yes, Ref. At	tached Ulti	rasonic Indic	ation Report.)								
Results:	Accept	Rejec	ot 🔲	Info 🗌					C				tal 70 deg sc		
Percent Of Cov	/erage Obta	ined > 90%:	No	Reviewed Pr	evious Dat	ta:	N/A				verage du Id.	le to weld	crown config	uration. Ris	sk informed
Examiner	Level	11		Signature			Date Revie	wer				7 Signati	1 <b>16/</b>		Date
Pollock, Norm	nan E.		Hon	un Palle	El C	4/26	12008 Jei	emy Ti	MM			X	5	5/12	3/08
Examiner	Level	N/A	<u>_</u>	Signature	Therease		Date Site F	leview		····		Signati	Jre		Date
N/A								IPE B	uKes		<u>Phill</u>	wCB	uper )	Nav 13.	2008
Other	Level	N/A		Signature			Date ANII			_		Signati	JIG	0-1	Date
N/A							17	zmes W.A	leven	<u> </u>	Jan	u 1	comercy	(3MA	498





## Ultrasonic Indication Report

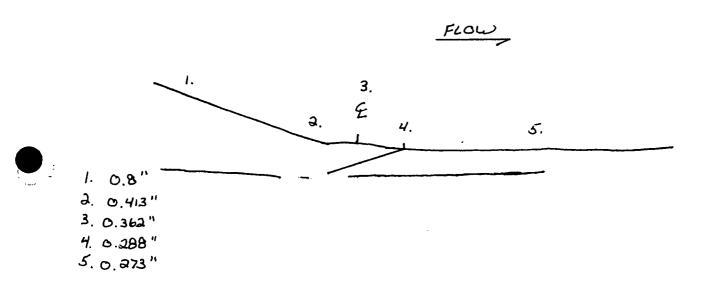
D O	ominion'	Site/Unit	: <u> </u>	PS	/	1		P	rocedure	ER-À	A-NDE-U	T-801 R	ev. 0 Outage No.: K1R29
	Su	mmary No.	:	K1.	C5.61.19	€1		Proced	lure Rev	.:	0		Report No.: UT-08-261
		Workscope	:		PSI			Work C	Order No	.:	07-00	9669	Page: 2 of 2
S	earch Unit A Wo Loca Lo Loca	ition: We	70 eld Cente p Dead C		0			-		ds ssels <u>&gt;</u>	2"T		Wo Wmax CL W1 W2
L	3R Remai Distan	Path ning Back I ce From Da <b>None</b>		n	Wn W1 W2	D	istance F	From Wo From Wo From Wo	At	NA Of	num Res Max (Fo Max (Fo	rward)	DATUM Lo Lamax H2 W1 Wimax W2
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#	No.	Of DAC	W	/lax MP	W1	Of Max MP	W2	Of Max MP	Of Max	Max	Öf Max	Amp.	
2	1	100+	.75"	.806"	NA	NA	NA	NA	NA	TDC	NA	NA	ID Geometry seen 360 degrees intermittent.
					+					+			
	_	<b>_</b>	<u> </u>	<u> </u>		<u> </u>	<b> </b>	<b>_</b>		<u> </u>	<b>_</b>	<u> </u>	
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			<u> </u>				L						
Examir Polloc	ner Leve k, Norman E		0	Noa	Signatur			۲ 4/26/2	Date Rev 2008 J	viewer	Tin	<b>7</b> ~~	Signature Date
Examir N/A	ner Leve	N/A			Signatu			[	Date Site	e Review	n	······	Signature Date Phillips C Bukes May 13,2008
Other N/A	Leve	N/A			Signatu	re		]	Date AN	Il Review	/		Signature Date
		·											

## **Supplemental Report**

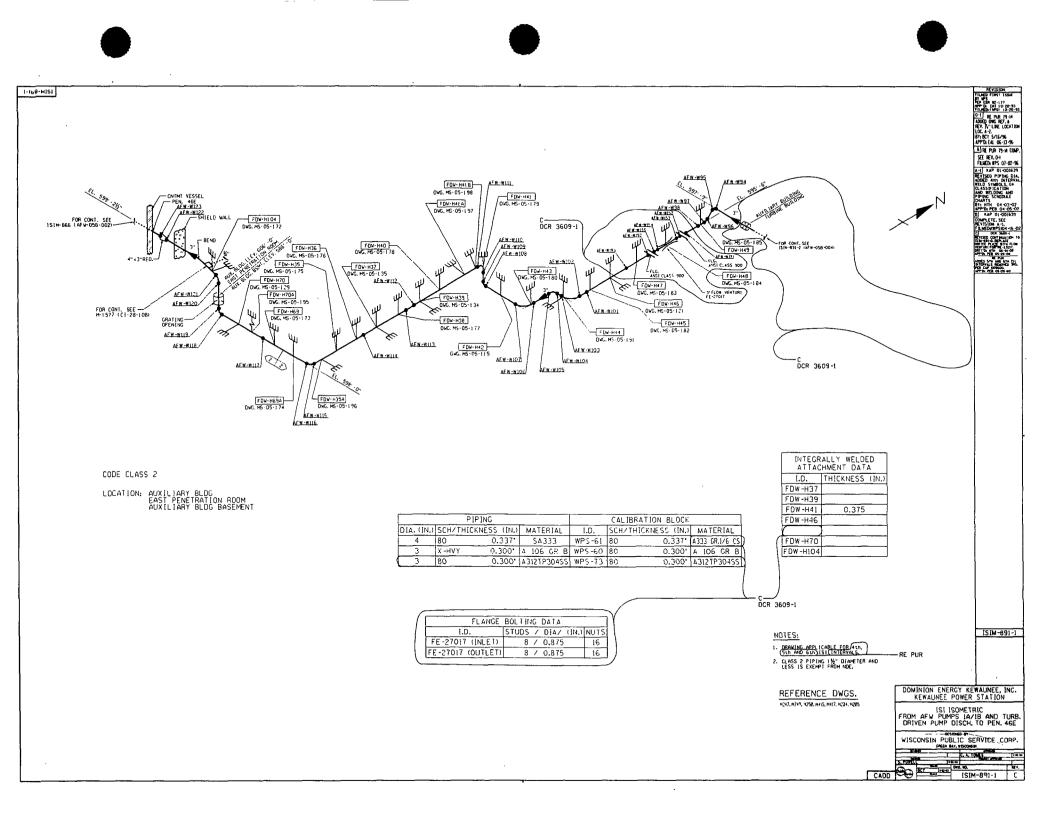
Dominion	Report No.: <u><i>VT-08-259</i></u> Page: 1 of 1
Summary No.: <u>KI. C.S. 61. 191</u> Examiner: <u>Pollock Norman E.</u>	Reviewer: <u>Sercmy Timm Jollin</u> Date: <u>5/13/08</u> Site Review: Phillip E Bukes Phillip ( Autor Date: May 13, 2008
Examiner: MA	
	 ANII Review: James W, Niewerg Jonn W. Themer Date: 13 mm 08

INDICATION PLOT Comments: WELD # AFW-W192 WELD LENGTH 11.3" WELD CROWD WIDTH 0.65"

Sketch or Photo:



			Supplemental Report	IT AP DEA
Dominion				D.: <u>VT-08-259</u>
		8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Pag	le: of
Summary No.: KI.C		Swan f	aller I Die F T Att	2 Data Chalas
Examiner: <u>Pollo</u>	ck Nol	man E.	Level. I Reviewer. Jeremy 1.mm Willer	Date: 5/13/08
Examiner: <u>M/A</u>			Level: <u>N/A</u> Site Review: Phillip E. Bukes/hullip C. Bukes	Date: May 13 200
Other: <u>///A</u>			Level: N/A ANII Review: James W. Nicmerg and W. Umer	Date: 13 MAYOR
Comments:				
			AFW-W192	
			Weld Crown Width: .70"	
	Thiskness 1800"	s Measureme	nts	
Sketch or Photo:	2413" 3342"		Flow	
	4288"			
	5273"			
		(1.)		
	~		(3.)	
			(2.) CL (4.) (5.)	
			45/70 45/70	
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an en la desta desta A desta d				
		1	Total Risk informed Examination Volume = 2297 so Inches	
			Total Risk informed Examination Volume = 2297 sq. Inches	
Axial Examination Coverag * 45 & 70 Degree Scans we	e Upstream 1004 are Also Performe	% 45 & 70 Degree 📡	Axial Examination Coverage Downstream 100% 45 & 70 deg	iree
* 45 & 70 Degree Scans we	ere Also Performe	% 45 & 70 Degree 📡		rree J
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## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-32

### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## 1. ASME Code Component Affected:

3" Auxiliary Feedwater Circumferential Weld AFW-W194 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

## 4. Impracticality of Compliance:

33.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W194 was inaccessible due to Pipe to Flange Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 33.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W194 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W194 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-32

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

•

Not Applicable

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Site/Unit: KPS		/ 1			Procedure: ER-AA-NDE-UT			Rev. 0	Outage No.: Report No.:						
		•	K1.	C5.61.193						-			•		T-08-199
	V	Vorkscope:		PSI		W	ork Order	No.:		07-009669		_	Pa	age: <b>1</b>	of <u>1</u>
Code:	A	SME Sect. X	l 98 Ed/00 Add		Cat./Item:	C-	F-2/C5.61	1	_	Location:		TL	JRBINE BUILI	DING	
Drawing No.:	-		ISIM-891-2		- Desci	ription: 3"	PIPE TO	FLANGE W	ELD						
System ID:	AFW - FF	ROM AFW PL	JMPS 1A/1B AND	TURB. DRIVEN I	PUMP DISCH. TO	D PEN. 46E									
Component ID:	ISIM-891	-2/AFW-W19	4						Size/l	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None	· · ·								Start	Time:	0930	Finis	h Time:	0939
-	Instrur	nent Setting	s		Search Uni	it		Cal.	<b>T</b> 1	Data		Δyia	l Orientated S	earch Unit	
Serial No.:		01R5N	1W	Serial No.:	SC	0138		Checks	Time	Date	Calibr		Signal	Sweep	1
Manufacturer:		GE INSPE	CTION	Manufacturer	: KRAU	TKRAMER		Initial Cal.	0700	4/25/2008	Refle		Amplitude %	Division	Sound Path
Model:		USN 60		Size: (	<b></b>	be: ROU	ND	Inter. Cal.	0930	4/25/2008	ID N	otch	80%	5.0	.461"
Delay:	3.3775	Range:	.939"	Freq.:5.	MHZ Sty	le: COM	P-G	Inter. Cal. Inter. Cal.	N/A N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	<b>45</b> # c	of Elements:	Single	Final Cal.	1350	4/25/2008					
Damping:	500 ohms		0%	Mode:	SHE	-									
· · ·	Auto-High         Freq.:         5.0 MHZ           N/A         Mode:         Fullwave			Measured An	·	45			Couplar						<u> </u>
Filter:					M	SWQC		Cal. Batch:		07143		Circumfe	rential Orienta	ated Search	Unit
Voliage:	oʻtage: <b>450</b> Other: <b>P/W-100</b>				- Coarab Unit Cable			· —	SONOT	RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	19.0	Circ. Gair	· · · · · · · · · · · · · · · · · · ·	<del></del>	Search Unit C	able		Mfg.:	SONOTE	ECH INC.	Refle		Amplitude %	Division	
10 Screen D	)iv. = <b>.93</b>	9 in. of	Sound Path	Туре:	BNC to MC			Exam Batch	<b>1</b> :	07143	N/	A	· ·		
Linearity Report	No.:	L-(	08-003	Length:	6' No. Cor	nn.: (	0	Type:	SONOT	RACE 40					
	Calib	ration Block			Scan Covera	ige		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:		WPS-	-60	Upstream 🖌	Downstream 🖌	Scan dB	31.0	Pot	erence E	Block		Ref	erence/Simul	ator Block	4
Thickness:	0.300"	Dia.:	3"	cw 🔽	ccw	Scan dB	37.0	Serial No.:		MT-111	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <b>70</b> Te	mp. Tool:	259564	Exam Surfac	e:	OD		Type:		/PAS	dB 25.0	Reflector		6 Division 4.8	.452"
Comp. Temp.:	<b>75</b> Te	mp. Tool:	259564	Surface Con	dition: FL	AT TOPPE					23.0	.5 501	447/0	4.0	.452
Recordable Inc	dication(s):	Yes	□ No 🖌	(If Yes, Ref. At	tached Ultrasonic	Indication F	Report.)								
Results:	Accept 🖌	Reje	ect	Info 🗌					Co	omments: 0 o	deg lamin	ation scar	n performed. I	Risk inform	ed weld.
Percent Of Cov	erage Obtai	ned > 90%:	No	Reviewed Pi	evious Data:	N/A									
Examiner	Level			Signature		Date	Review	er				> Signat	ture		Date
Pollock, Norm	an E.		normal	Paller		4/25/2008	Jere	my Ti	nm		In	ER		5/1	108
Examiner	Level	N/A		Signature		Date	Site Re				21	Signat	ture		Date
N/A							Ph.II	IPE.B	ukes	\$	The	lo C.	Bukes	May 13	2008
Other	Level	N/A		Signature		Date	ANII R	-			\	Signat	ture	0-3	Date
N/A							James Willremerg			$\rightarrow$	_) amas WN (iemera 13)				08



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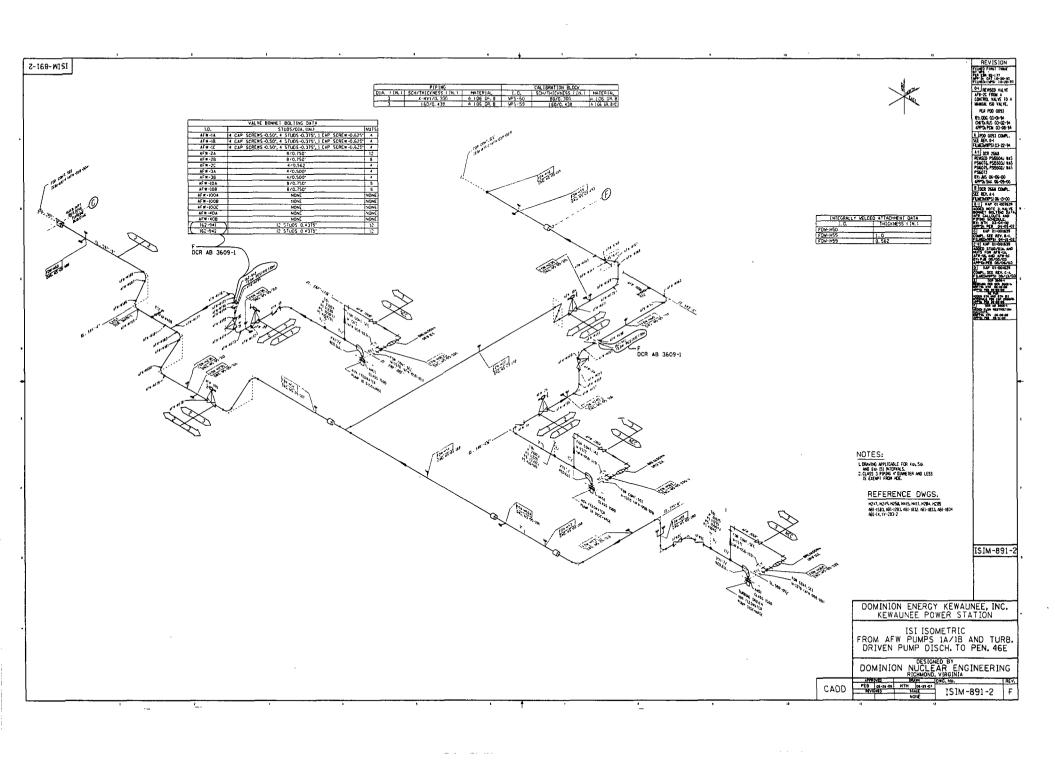
		Cite/Linity	KDC		o o o		Deere	duna	ED 44		Davi 0		Outerra	1	K4Doo
<b>M<sup>PP</sup></b> Comi		Site/Unit:	KPS	/ 1		-	Proce		CH-AA-	NDE-UT-801	Rev. u	_	Outage		K1R29
		mmary No.:	K	1.C5.61.193	<u> </u>		Procedure			0		_	Report	<del>_`</del>	T-08-200
	v	Vorkscope:		PSI	,,,,,,, _	v	/ork Order	r No.:		07-009669			Pa	ige: <b>1</b>	of <u>1</u>
Code:	As	SME Sect. X	98 Ed/00 Add		Cat./Item	:: <u> </u>	-F-2/C5.61	1	_	Location:		τι	JRBINE BUILI	DING	
Drawing No.:			ISIM-891-2		ſ	Description: <u>3</u> "	PIPE TO	FLANGE W	/ELD						
System ID:	AFW - FR	OM AFW PL	JMPS 1A/1B AND	D TURB. DRIVEN P	JMP DISC	H. TO PEN. 461									
Component ID:	ISIM-891-	2/AFW-W19	4						Size/	Length:	3"/10.99"	·	Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None									Star	t Time:	1100	Finis	n Time:	1109
	Instrum	nent Setting	\$		Searc	h Unit			T				· · · · ·		***
Serial No.:	1150 411	01R5N		Serial No.:	00410	SC0138		Cal. Checks	Time	Date		Axia	Orientated S		
Manufacturer:		GE INSPE		Manufacturer:	к	RAUTKRAME	2	Initial Cal.	0710	4/25/2008	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:	·	USN 60	SW				UND	Inter. Cal.	1100	4/25/2008	ID N		80%	5.0	.600"
Delay:	4.9966	Range:	1.2"	Freq.: 5.0	MHZ	Style: CON	AP-G	inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	60	# of Elements	: Single	Inter. Cal.	N/A						
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR		Final Cal.	1400	4/25/2008					
Rep. Rate:	Auto High	Freq.:	5.0 MHZ	Measured Ang	le:	59			Couplai	nt					
Filter:	N/A	Mode:	Fullwave	Wedge Style:	<u></u>	MSWQC		Cal. Batch;		07143		Circumfe	rential Orienta	ted Search	Unit
Voltage:	450	Other: _	P/W-100					Туре:	SONOT	RACE 40	Calib		Signal	Sweep	Sound Path
Ax. Gain (dB):	32.5	Circ. Gair	``		Search U	nit Cable		Mfg.:	SONOT	ECH INC.	. Refle		Amplitude %	Division	
10 Screen D	)iv. = <b>1.2</b>	in. of	Sound Path	Туре:	BNC to	o MCD: RG-174		Exam Batch	n:	07143	N/	<u>A</u>			
Linearity Report	: No.:	L-(	08-003	Length:	5' No	o. Conn.;	0	Туре:	SONOT	RACE 40	[ <b> </b>				
	Calibr	ation Block			Scan Co	overage		Mfg.:	SONOTE	ECH INC.	.				
Cal. Block No.:		WPS-	60	Upstream	Downstre	am 🔲 Scan di	3: <b>N/A</b>	Ref	erence	Block		Ref	erence/Simula	tor Block	
Thickness:	0,300"	Dia.:	3"	cw 🗹	CC	W 🖌 Scan de	B: <b>44.5</b>	Serial No.:		MT-111	Gain	<b>D</b> (1 )	Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <b>70</b> Te	mp. Tool:	259564	Exam Surface		OD		Type:		//PAS	. dB 32.5	Reflector		Division 5.0	.605"
Comp. Temp.:	<b>75</b> Te	mp. Tool:	259564	Surface Condi	tion:	FLAT TOPP		· ) [			. 32.3	.3 300	10%	- 3.0	.003
Recordable Inc	dication(s):	Yes	No 🔽	(If Yes, Ref. Atta	iched Ultra	sonic Indication	Report.)						1	+	
Results:	Accept 🔽	Reje	ct 🗍	Info					Co	omments: Po	erformed s	kewed sc	an in the circi	Imferential	direction.
		-									eld root si formed we	-	d when skewe	d towards	weld. Risk
Percent Of Cov	erage Obtair	ned > 90%:	No	Reviewed Pre	vious Data	: <u>N/A</u>					Ionned we				
Examiner	Level		~	Signature		Date					$\sim$	Signat	ure		Date
Pollock, Norm	an E.	_	Nome	Palk		4/25/2008	Jen	emy T	IMM		he	the	Z	<u> </u>	3/08
Examiner	Level	N/A		Signature		Date						Signat		144	Date
N/A		_					· · · · · · · · · · · · · · · · · · ·	IP E.B	uKes	<b>`</b>	Phil	40 C 1	Sulla	11/ay 1	32008
Other	Level	<b>N/A</b> ·		Signature		Date					$\frown$	Signat		V	Date
N/A						· · · · · · · · · · · · · · · · · · ·	Ja	mes w,N	I EMERC	<u> </u>	a	ne UY	limery	13m	807
									-		-		$\mathcal{I}$		

- <b>S</b> i barai	in in the second	Site/Unit:	KPS	/ 1		Proc	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage	No <sup>.</sup>	K1R29	
<b>336.0</b>		mmary No.:	K1	.C5.61.193		Procedure			0		_	Report		T-08-201	
		– Norkscope:		PSI		Work Orde			07-009669		_		age: 1	of 1	
		-						÷			<u> </u>				
Code:	A	SME Sect. XI	98 Ed/00 Add	C	at./Item:	C-F-2/C5.6			Location:			IRBINE BUILI	JING		
Drawing No.:			ISIM-891-2		•	on: 3" PIPE TO	D FLANGE V	VELD							
System ID:	AFW - FF	ROM AFW PU	MPS 1A/1B AND	TURB. DRIVEN PUMI	P DISCH. TO P	EN. 46E									
Component ID:	ISIM-891	-2/AFW-W194						Size/	Length:	3"/10.99"		Thickness/Diameter: 0.300"/3.			
Limitations:	None								Start	Time:	1500	<b>1500</b> Finish Time: <b>1509</b>			
	Instru	nent Settings	· ····································		Search Unit						Avia	aanah Umit			
Serial No.:	_	01R5N	w	Serial No.:	SC024	0	Cal. Checks	Time	Date			xial Orientated Search U			
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRAUTK	RAMER	Initial Cal.	0720	4/25/2008	Calibr Refle		Signal Mplitude %	Sweep Division	Sound Path	
Model:		USN 60	SW	Size: 0.25"	Shape:	ROUND	Inter. Cal.	1500	4/25/2008	ID N	otch	80%	5.0	.954"	
Dolay:	6.6259	Range:	1.94"	Freq.: 5.0 MH	Z Style:	COMP-G	Inter. Cal. Inter. Cal.	N/A							
M'tl Cal/Vel:	.1268	- Pulser: -	Square	Exam Angle:		lements: Single	Final Cal.	N/A 1750	4/25/2008	ļ				<u> </u>	
Damping:	500 ohms Auto-High	<b>—</b> ′ –	0% 5.0 MHZ	Mode:	SHEAR		<b>I</b>	Couplar							
Rep. Rate:	N/A	<sup>Freq.:</sup> Mode:	Fullwave	Measured Angle:	· · · · · · · · · · · · · · · · · · ·			•	07143	<u> </u>		ential Orienta	ted Search		
Voltage:	450	Other:	P/W-100	Wedge Style:	101 2 441		Cal. Batch: Type:		RACE 40	Calibr	·····	Signal			
Ax. Gain (dB):	42.3	Circ. Gain	(dB): N/A	 Se	arch Unit Cable	e		SONOTE		Refle		Amplitude %	Sweep Division	Sound Path	
10 Screen D	Div. = <b>1.9</b>	4 in. of	Sound Path	— Type:	BNC to MCD: F	RG-174	Exam Batcl		07143	. N/	A				
Linearity Report			8-003	Length: 6'	No. Conn.:	0			RACE 40						
		ration Block			 can Coverage		··· ····		ECH INC.						
Cal. Block No.:	CallD	WPS-6	50	Upstream 🔽 Do	wnstream 🖌	Scan dB: 48.3				Reference/Simulator Block					
Thickness:	0.300"	Dia.:	3"	cw	_	Scan dB: N/A		erence l		Gain	Лен	Signal	Sweep		
Cal. Blk. Temp.	: <b>70</b> Te		259564	Exam Surface:	0	D	Serial No.:		MT-111	dB	Reflector	Amplitude %		Sound Path	
Comp. Temp.:	<b>75</b> Te	mp. Tool:	259564		: FLAT	TOPPED	Туре:	RON	/IPAS	42.3	.3" SDH	60%	4.8	.930"	
Recordable Inc	dication(s):	Yes	□ No 🔽	(If Yes, Ref. Attache	d Ultrasonic Ind	lication Report.)								<u> </u>	
Results:	Accept	Rejec		Info 🔲				Co				tal 70 deg sca			
Percent Of Cov	rerage Obtai	ned > 90%:	No	Reviewed Previou	is Data:	N/A			co we		ie to weld	crown config	uration. Ris	sk informed	
Examiner	Level	11		Signature		Date Review	wer		· · · · · · · · · · · · · · · · · · ·		7 Signat	#9/2	······	Date	
Pollock, Norm	an E.		Non	moller	4/2	25/2008 Jere	emy Tr.	mm		Cha	, É		51	13/08	
Examiner	Level	N/A		Signature		Date Site R					Signati	lite	•	Date	
N/A							ILIPE B	ukee	<u>s 1</u> .	hillip	C Buk	na la	May 13,	2008	
Other	Level	N/A	•	Signature		Date ANII F		.1.		$\neg$	Signati	ure ymered	0	Date	
N/A							ames Wi	N lem	eng C	_ jam		imery	13 MAYO	~0	

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		Supplemental Rep	ort	
Dominion			R	eport No.: <u>UT - 08 - 1</u>
				Page: of
Summary No.:K	. C5. 61. 193		1	<i></i>
Examiner: Polloc	k, Norman E.	Level: T Reviewer	Jeremy Timm with	Date: 5/13/08
Examiner:	NA	Level: NA Site Review	Phille Buxes Philly	2 CBukes Date: May 13.20
Other:	NA	Level: NA ANII Review	Tames W. Nicmerg Oanul	Date: 13MAY 02
Comments:	COVERAGE	PLOT		
Sketch or Photo:				
excitent of T note.		Weld: AFW-W194		
	Measurements	Weld Crown Width: .70"		
1308" 2326"		Flow		
3451" 4. NA		(3.)		
5. NA		CL 4 5		
. (1	)	2		
Pipe		Flanga	B 1	
		****		
			Total Risk Informed Examination	on Volume = .3278 Sq. Inches
	Jpstream 100% 45 & 70 Degree Also Performed on Flat top weld.		Axial Examination Coverage Downstrea	
		aller	* 45 & 70 Degree Scans were also perfo Total Area of Coverage Achieved .1443 Total Area of Risk Informed Examination	Sq. Inches.
Circ Examination Coverage With 45 degree and Supple Clockwise and Counter Clo	emented by 60 degree skew scans			
	were also performed on flat top weld		Circ Examination Coverage Downstream	1 0%
	Examination Vol	lume Dimensions Height = .15"/ .33" Length	11.0" Width 1.70"	
	Axia Circ	Upstream 100% Downstream 69% Upstream 100% Downstream 0%		

Achieved 67% Risk Informed Examination Coverage



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-33

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

### 1. ASME Code Component Affected:

3" Auxiliary Feedwater Circumferential Weld AFW-W195 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

## 4. Impracticality of Compliance:

15.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W195 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 15.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W195 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W195 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice Inspection examinations, if required, will be performed by the Radiography Method

### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### **RELIEF REQUEST NO: RR-G-5-33**

to achieve required examination volume.

- 7. Duration of Proposed Alternative:4th Ten-Year Interval June 16, 2004 June 16, 2014
- 8. Precedents:

Not Applicable

## 9. References:

Not Applicable

Page 2 of 2

								mado							
<b>Ser</b> ie Con	ninion'	Site/Unit:	KPS	1	1		Pro	cedure:	ER-AA-	NDE-UT-801	Rev. 0		Outage	No.:	K1R29
	Sum	nmary No.:	K	1.C5.61.194			Procedui	e Rev.:		0		_	Report	No.: U	T-08-202
	W	orkscope:		PSI			Work Orc	ler No.:		07-009669		_	Pa	age: 1	of <b>1</b>
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat./	/Item:	C-F-2/C5	61		Location:		TL	JRBINE BUIL	DING	
Drawing No.:	··· ,		ISIM-891-2		_	Descriptio	on: 3" VALVE	TO PIPE WE	 LD	·	_				
System ID:	AFW - FR	OM AFW PU	MPS 1A/1B AND	TURB. DRI	VEN PUMP D	SCH. TO PE	EN. 46E								
Component ID	D: ISIM-891-2	2/AFW-W195							Size/	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None	· · · ·								Start	Time:	0940	Finis	h Time:	0949
		ant Cattings	· · · · · · · · · · · · · · · · · · ·			anah Unit		···							······································
Serial No.:	instrum	ent Settings 01R5N		O a mital N		earch Unit		Cal. Checks	Time	Date		Axia	Orientated S	earch Unit	
Manufacturer:		GE INSPEC	· · · · · · · · · · · · · · · · · · ·	Serial N Manufa		SC013 KRAUTKI		Initial Cal.	0700	4/25/2008	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60		Size:	0.25"	Shape:	ROUND	Inter. Cal.	0940	4/25/2008	ID No		80%	5.0	.461"
Delay:	3.3775	Range:	,939"	Freq.:	5.0 MHZ		COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam A	ngle: 4	5 # of El	ements: Single	Inter. Cal.	N/A						1
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR		Final Cal.	1350	4/25/2008					
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measur	ed Angle:	4	5	-	Couplai	nt	L			<u> </u>	
Filter:	N/A	Mode:	Fullwave	Wedge	Style:	MSW	20	Cal. Batch:		07143		Circumfe	ential Orienta	ated Search	u Unit
Voltage:	450	Other:	P/W-100					···		RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB)		Circ. Gain	· · ·			h Unit Cable		Mfg.:	SONOTI		Refle		Amplitude %	Division	
10 Screen	Div. = .939	in. of	Sound Path	Туре:	<b></b>	IC to MCD: F		Exam Batch	า:	07143	N/	A	· ·		
Linearity Repo	ort No.:	L-0	8-003	Length:		No. Conn.:	0	Type:	SONOT	RACE 40					
	Calibra	ation Block			Sca	n Coverage		Mfg.:	SONOTI	ECH INC.					1
Cal. Block No	.:	WPS-6	50	Upstrea	um 🖌 Down	istream 🖌 S	Scan dB: 31.0	Ref	erence	Block	Reference/Simulator Block				
Thickness:	0.300"	Dia.:	3"	C	W 🔽	ccw 🗹 s	Scan dB: <b>37.0</b>	- Serial No.:	L	MT-111	Gain	Deflector	Signal	Sweep	Sound Path
Cal, Blk. Tem	p.: <b>70</b> Ten	np. Tool:	259564	Exam S	urface:	0	D	Туре:	ROM	/PAS	dB 25.0	Reflector .3" SDH	Amplitude %	Division	.452"
Comp. Temp.	: <b>75</b> Ten	np. Tool:	259564	Surface	Condition:	FLAT	TOPPED	-	17						
Recordable I	ndication(s):	Yes	🗌 🛛 No 🖌	(If Yes, R	ef. Attached (	JItrasonic Ind	ication Report.							1	
Results:	Accept 🖌	Rejec	it 🗌	Info 🗌					C	omments: 0 d	leg lamina	ation scan	performed. F	Risk inform	ed weld.
Percent Of Co	overage Obtain	ed > 90%:	No	Review	ved Previous I	Data:	N/A								
Examiner	Level			Signature	<b>4</b>		Date Revie				$\overline{\Lambda}$	Signat	ure		Date
Pollock, Nor	man E.		nomen	Polla		4/2	5/2008 Jer	emy Time	η	·	har	tto		5/	13/08
Examiner	Level	N/A		Signature			1_	Review	• •		-01	Signati		1 76 4	Date
N/A							1 thi	PE.BI	res	<u> </u>	Phi	lip C	; 1Juples	May	32008
Other N/A	Level	N/A		Signature				Review		(	$\frown$	<ul> <li>Signati</li> </ul>	ure (iemerg	<i>v</i>	Date
.v.								James 1	NINIE	merq -	a	mercer	umera	131	19708

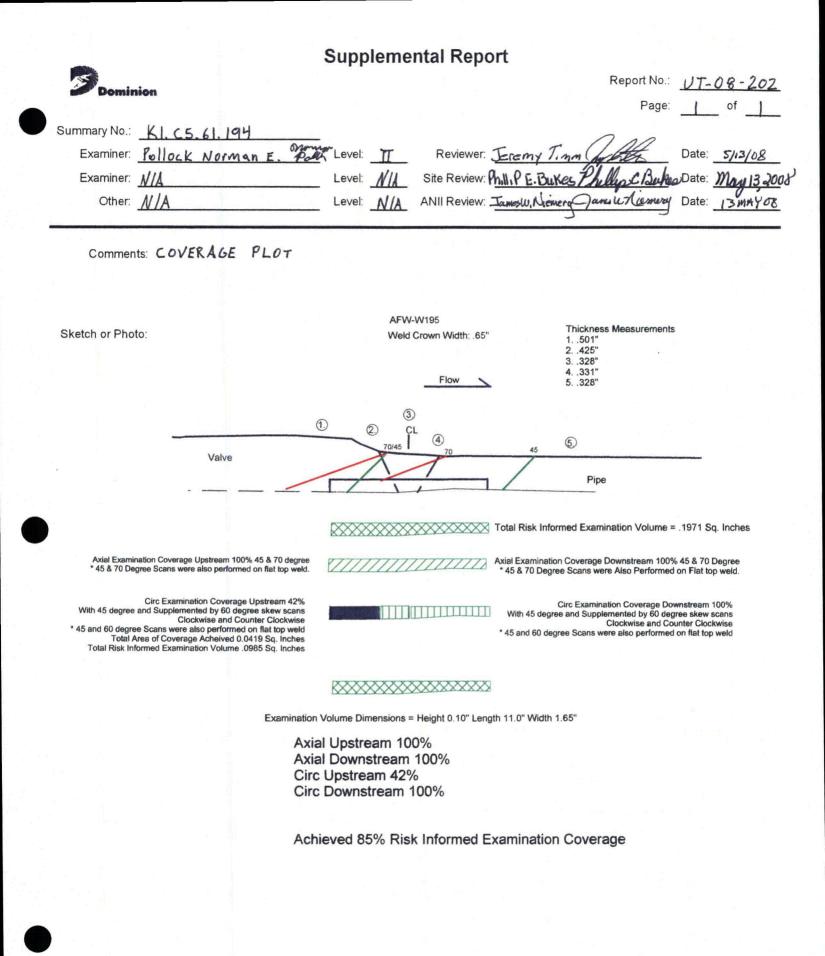


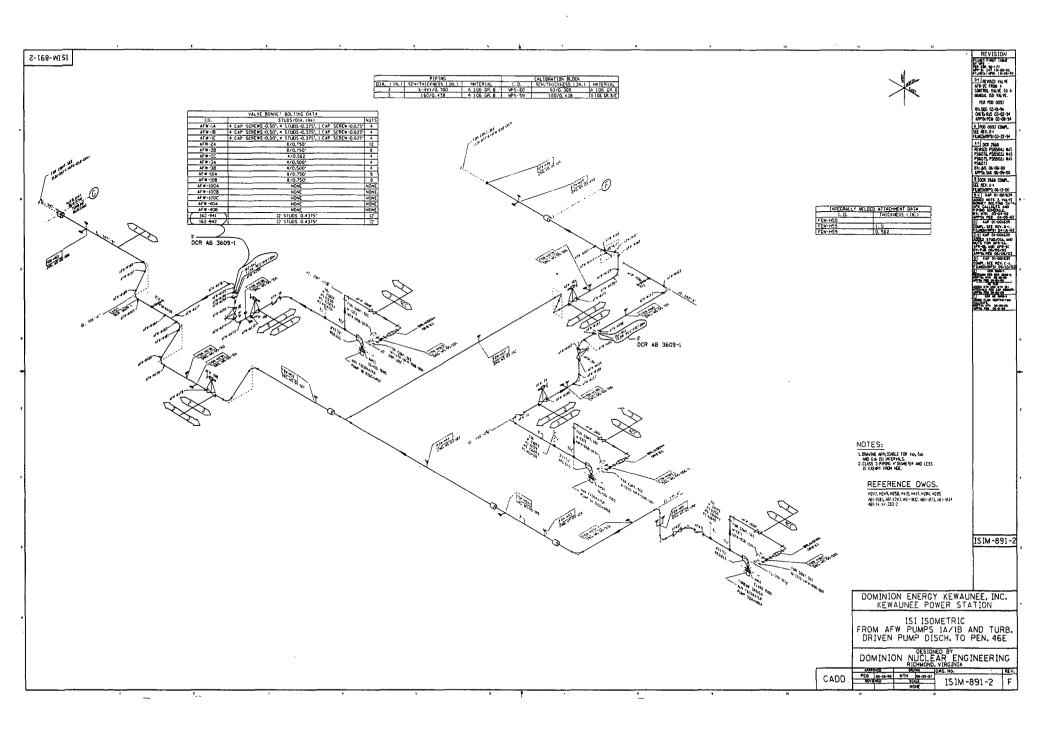
					0.	- unbrut		-Xuiii										
<b>Mar</b> tonni	inion	Site/Unit:	KPS	/	1			Proced	dure:	ER-AA-	NDE-UT-80	1 Rev. 0	_	Outage	No.:	K1R29		
	Sum	mary No.:	K	I.C5.61.194			Pro	ocedure	Rev.:		0			Report	No.: U	T-08-203		
	W	orkscope:		PSI			Wo	rk Order	No.:		07-009669		_	F	Page: 1	of <b>1</b>		
Code:	AS	ME Sect. X	98 Ed/00 Add		Cat	t./Item:	C-F	-2/C5.61	1		Location:		T	URBINE BUIL	.DING			
Drawing No.:			ISIM-891-2	·		Descriptio	on: 3" V	ALVE T	O PIPE WI	ELD	-				<u> </u>			
System ID:	AFW - FRO	OM AFW PU	JMPS 1A/1B AND	TURB. DRIVE		DISCH. TO PE	EN. 46E											
Component ID:	ISIM-891-2	/AFW-W19	5			······				Size/	Length:	3"/10.99"		Thickness/D	)iameter:	0.300"/3.5"		
Limitations:	None	·····							······		Sta	art Time:	1110	Fini	sh Time:	1119		
	Instrum	ent Setting	~			Search Unit						=						
Serial No.:	instrum	o1R5N		Serial No.		SC013	0		Cal. Checks	Time	Date		Axia	I Orientated	Search Unit			
Manufacturer:	. <u></u>	GE INSPE		Manufact		KRAUTKI		[	Initial Cal.	0710	4/25/2008		ration ector	Signal Amplitude %	Sweep Division	Sound Path		
Model:	. <u></u>	USN 60	sw	Size:	0.25"	Shape:	ROUN	ND D	Inter. Cal.	1110	4/25/200		otch	80%	5.0	.600"		
Delay:	4.9966	Range:	1.2"	Freq.:	5.0 MHZ	Style:	COMP	2-G	Inter. Cal.	N/A						·		
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Ang	gle:	60 # of El	ements:	Single	Inter. Cal. Final Cal.	N/A 1400	4/25/200							
Damping:	500 ohms	_ Reject: _	0%	Mode:		SHEAR		I		<u> </u>		의						
Rep. Rate:	Auto High	- Freq.:	5.0 MHZ	Measured	· ·		59	<u></u>		Couplar					L	<u> </u>		
Filter: Voltage:	N/A         Mode:         Fullwave           450         Other:         P/W-100			Wedge S	tyle:	MSW	20		Cal. Batch:		07143 RACE 40	-		rential Orient	T			
Ax. Gain (dB):	32.5	- Circ. Gair		<u></u>	Sea	rch Unit Cable	•			SONOTE	····		ration ector	Signal Amplitude %	Sweep Division	Sound Path		
10 Screen E		in, of	Sound Path	Туре:		BNC to MCD: F			_	-		-   N	/A			1		
Linearity Repor		•	08-003	Length:	6'	No. Conn.:			Exam Batc Type:		07143 RACE 40	-						
спеану перог	-				Sci	- an Coverage			··	SONOTE					<b></b>			
Cal. Block No.:		ition Block WPS-		Upstream		vnstream	Scan dB:		·				Reference/Simulator Block					
Thickness:	0.300"	Dia.:	3"	 cw		ccw 🔽 s		44.5		ference l		Gain		Signal	Sweep			
Cal. Blk. Temp.		ap. Tool:	259564	Exam Su		o	•		Serial No.:		MT-111	dB	Reflecto	r Amplitude		Sound Path		
Comp. Temp.:		np. Tool:	259564	Surface C	Condition:	FLAT	TOPPED		Туре:	RON	IPAS	- 32.5	.3" SDH	70%	5.0	.605"		
Recordable In		Yes	N₀ <b>▼</b> ]	 (If Yes, Ref	. Attached	I Ultrasonic Ind	ication Re	eport.)										
Results:	Accept		ct []	Info [¯]						C	omments:	L Performed	skewed so	an in the circ		direction		
ribouito.		1.630									1	Weld root s	ignal note	d when skew				
Percent Of Cov	/erage Obtaine	∋d > 90%:	No	Reviewe	d Previous	s Data:	<u>N/A</u>	<u></u>				informed w	eld.			·····		
Examiner	Level	]]		Signature				Review				1	Signal	ure	·	Date		
Pollock, Norm			noma	Palle		4/2		Jeren		m		_hy	1th		57.	13/08		
Examiner	Level	N/A		Signature			1	Site Re				ÐAA	Signal	1	544	Date		
N/A				Signature					PEB	uKes		T hill		Bukes	May!	32008		
Other N/A	Level	N/A		Signature			Date	ANII Re	imes W,1	م سمر ل		$\frown$	Signat	(cemery	<b>V</b>	Date		
L			· · · <del></del>					70		~ 12mb	<u> </u>	_ am	4.0.7	umery	1344	140		



UT Calibration/Examination

					0.0	anoraa											
<b>M<sup>CP</sup></b> Comi	mion	Site/Unit:	KPS	<u> </u>	1	-		edure:	ER-AA-	NDE-UT-80	1 Rev. 0	_	Outage		K1R29		
		nmary No.:	K <sup>.</sup>	1.C5.61.194		-	Procedure			0		—	Report		T-08-204		
	W	/orkscope:		PSI		-	Work Orde	er No.:		07-009669			Ρ	age: 1	of <u>1</u>		
Code:	AS	SME Sect. X	98 Ed/00 Add		Cat./I	tem:	C-F-2/C5.6	51		Location:		т	URBINE BUIL	DING			
Drawing No.:			ISIM-891-2			Description	n: 3" VALVE		ELD								
System ID:	AFW - FR	OM AFW PU	MPS 1A/1B AND	TURB. DRIVE	N PUMP D	SCH. TO PE	N. 46E										
Component ID:	ISIM-891-2	2/AFW-W19	5						Size/	Length:	3"/10.99'		Thickness/D	ameter:	0.300"/3.5"		
Limitations:	None		·							Sta	rt Time:	1510	Finis	h Time:	1519		
	Instrum	ent Setting			Sea	arch Unit			r								
Serial No.:		01R5N		Serial No.:		SC0240		Cal. Checks	Time	Date			al Orientated S		<b></b>		
Manufacturer:		GE INSPE	CTION	Manufactu		KRAUTKR		Initial Cal.	0720	4/25/2008		ector	Signal Amplitude %	Sweep Division	Sound Path		
Model:		USN 60	SW	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1510	4/25/2008		lotch	80%	5.0	.954"		
Delay:	6.6259	Range:	1.94"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A								
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Ang	le: <b>70</b>	# of Ele	ments: Single	Inter. Cal. Final Cal.	<u>N/A</u> 1750	4/25/2008	┥ <u>└</u> ───						
Damping:	500 ohms	_ Reject: _	0%	Mode:		SHEAR		L			<sup>и</sup>				<u> </u>		
Rep. Rate:	Auto-High	- Freq.:	5.0 MHZ	Measured		6			Couplar		}				<u> </u>		
Filter:		N/A         Mode:         Fullwave           450         Other:         P/W-100			yle:	MSWO	C	Cal. Batch:		07143 RACE 40	-		erential Orient		- Unit 		
Ax. Gain (dB):	42.3	- Circ. Gair			Search	h Unit Cable		· · · ·	SONOTE			ector	Signal Amplitude %	Sweep Division	Sound Path		
10 Screen E		-	Sound Path	<b>—–</b> Туре:		C to MCD: R	G-174	Ŭ <u></u>			-	/A			+		
Linearity Report			8-003	Length:	6'	No. Conn.:	0	Exam Batcl	n: SONOTE	07143	-						
Elleanty hepon					Scan	Coverage		· · · · · · · · · · · · · · · · · · ·	SONOTE		- [				<b>_</b>		
Cal. Block No.:	Calibr	ation Block WPS-	<b>6</b> 0	Upstream	Downs	stream 🔽 S	can dB: <b>48.3</b>	·			-	Reference/Simulator Block					
Thickness:	0.300"	Dia.:	3"	 cw	-		can dB: N/A		ierence E		Gain	ne	Signal	Sweep			
Cal. Blk, Temp.		np. Tool:	259564	Exam Sur		0		Serial No.:	_	MT-111	dB	Reflecto	r Amplitude %		Sound Path		
Comp. Temp.:		np. Tool:	259564	Surface C			TOPPED	Туре:	RON	/IPAS	- 42.3	.3" SDI	l <u>60%</u>	4.8	.930"		
Recordable in		Yes	□ No 🔽	(If Yes, Ref.	Attached U	Itrasonic Indi	cation Report.)					<u> </u>		+			
Results:	Accept 🔽		ct [7]	Info 📋					Cr	omments: P	erformed	<u> </u>	ntal 70 deg sc	an to obtair	L		
	·				_					c	overage d		l crown config				
Percent Of Cov	erage Obtain	red > 90%:	No	Reviewed	Previous D	)ata:	N/A			w	/eld.						
Examiner		11	~	Signature			Date Review			<u> </u>		Signa	ture		Date		
Pollock, Norm			Varma			4/2	5/2008 Jol		mm		_fr	lto.		5/1	3/08		
Examiner	Level	N/A		Signature			Date Site R	eview		-	DA M	Signa	1	<b>M</b> (-	Date		
N/A Other	Level	N/A		Signature			Date ANII F	NE.B	whe s	/	nilly	<u>2 C Di</u> Signa	u Rea	<u>11/0y 13</u>	2008 Date		
N/A	Level	N/A		Jighalule				ieview	سما ( ۸	era (			Miemery	- 13	Date AYU8		
										<u> </u>	-Ja		1 umed	1211	1100		





## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-34

## PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W196 Preservice Examination

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## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

## 4. Impracticality of Compliance:

38.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W196 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 38.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W196 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W196 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-34

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

## 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

Not Applicable

Page 2 of 2

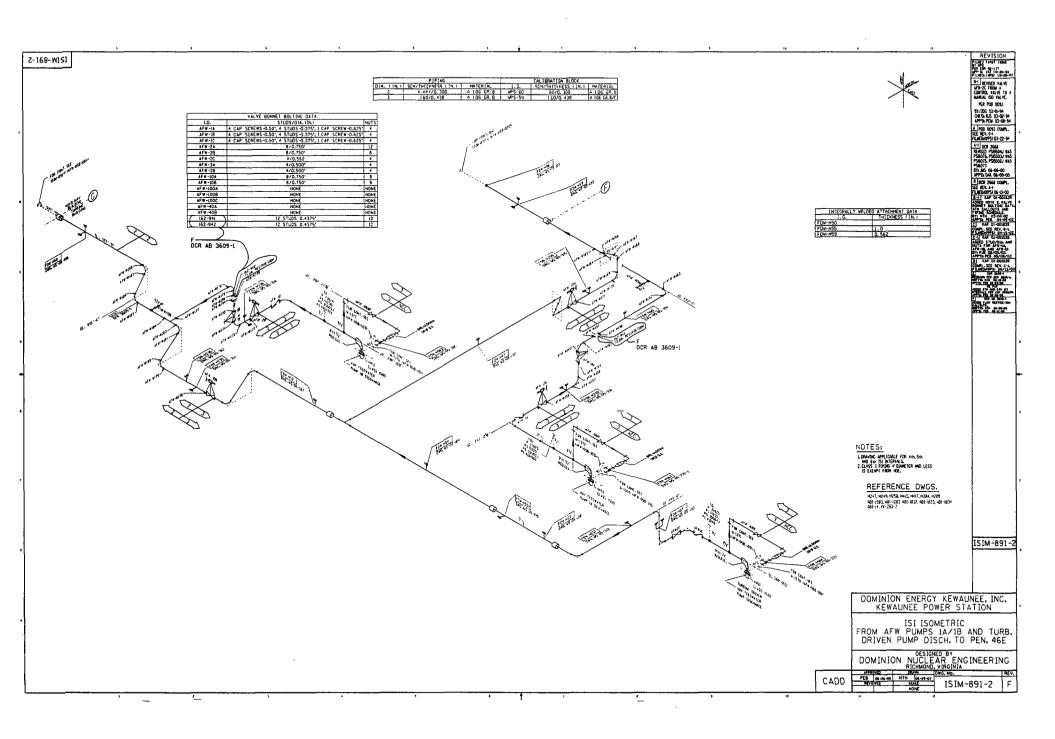
		0.1.1.11.1.11	KDO	, ,							D 0		0	NI	KADOO
<b>ést?</b> Comi		Site/Unit:	KPS	/ 1	<u> </u>			edure:	ER-AA-	NDE-UT-801	Hev. 0	-	Outage I		K1R29
		nmary No.:	K	1.C5.61.195			Procedure		<u> </u>	0		-	Report I		T-08-205
	W	Vorkscope:		PSI			Work Orde	er No.:		07-009669	<u> </u>		Pa	age: <u>1</u>	of <u>1</u>
Code:	AS	SME Sect. X	i 98 Ed/00 Add		Cat./Ite	em:	C-F-2/C5.6	51	_	Location:		T	URBINE BUILC	DING	
Drawing No.:			ISIM-891-2		_	Description	n: 3" FLANGE	TO PIPE W	ELD						
System ID:	AFW - FR	OM AFW P	JMPS 1A/1B AND	TURB. DRIVEN	UMP DIS	CH. TO PE	N. 46E		_						
Component ID:	ISIM-891-	2/AFW-W19	6						Size/	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None									Start	Time:	0950	Finis	h Time:	0959
	la chunn					ab linit									
Original Mark	Instrum	nent Setting		<b>a</b> : (N	Sear	rch Unit		Cal. Checks	Time	Date		Axia	Orientated S	earch Unit	
Seriel No.: Manufacturer:		01R5	······································	Serial No.:		SC0138 KRAUTKR		Initial Cal.	0700	4/25/2008	Calibr		Signal	Sweep	Sound Path
Model:		USN 60	······	Manufacturer Size: 0	).25"	Shape:	ROUND	Inter. Cal.	0950	4/25/2008	Refle		Amplitude % 80%	Division	401
Delay:	3.3775	Range:	.939"		D MHZ	– <sup>Shape:</sup> – Style:	COMP-G	Inter. Cal.	N/A		ID N		80%	5.0	.461"
M'ti Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	45	_ ` ~	ements: Single	Inter. Cal.	N/A						+
Damping:	500 ohms	Reject:	0%	Mode:		SHEAR		Final Cal.	1350	4/25/2008					1
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured An	igle:	4	5		Couplar	nt					
Filter:	N/A	Mode:	Fullwave	Wedge Style:		MSWQ	NC .	Cal. Batch:		07143		Circumfe	rential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100		T				SONOT	RACE 40	Calib		Signal	Sweep	Sound Path
Ax. Gain (dB):	19.0	Circ. Gai	n (dB):19.0		Search	Unit Cable		Mfg.:	SONOTE	ECH INC.	Refle	ctor .	Amplitude %	Division	
10 Screen D	Div. = .939	in. of	Sound Path	Туре:	BNC	to MCD: R	G-174	Exam Batcl	h:	07143	N/	<u>A</u>	·		<u> </u>
Linearity Report	t No.:	L-	08-003	Length:	6'	No. Conn.:	0	Туре:	SONOTE	RACE 40					
	Calibr	ation Block			Scan (	Coverage		Mfg.:	SONOTE	ECH INC.					+
Cal. Block No.:		WPS		Upstream 🖌	Downst	ream 🖌 S	can dB: 31.0	Bof	erence l			L Ref	erence/Simula	ator Block	
Thickness:	0.300"	Dia.:	3"	cw 🔽	c	ccw 🗹 s	can dB: 37.0	Rei Serial No.:		ыоск МТ-111	Gain		Signal	Sweep	Sound Path
Cal. Elk. Temp.	.: <b>70</b> Ter	– – mp. Tool:	259564	Exam Surface	e:	00	, <u> </u>			MPAS	dB		r Amplitude %		
Comp. Temp.:	<b>75</b> Ter	mp. Tool:	259564	Surface Cond	lition:	FLAT	TOPPED	Туре:	HON	1PA5	25.0	.3" SDH	44%	4.8	.452"
Recordable In	dication(s):	Yes	□ No 🔽	 (If Yes, Ref. Att	tached Ult	rasonic Indi	cation Report.)	,						+	<b> </b>
Results:	Accent .	a Roid	et [¯]	Info 🗍			, .		C	ommente: 0 d		tion coar	 performed. F	lick inform	
nesulis.	Accept 🖌	] neje										ation scal	i periorineu. r	usk morni	zu weiu.
Percent Of Cov	/erage Obtain	ned > 90%:	<u>No</u>	Reviewed Pr	evious Da	ita:	N/A								
Examiner	Level			Signature			Date Review	wer				Signat	ure a		Date
Pollock, Norm	nan E.		nome	Palue		4/25	5/2008 Je	iemy T	inm		6	hr t	lf-	5/1	3/08
Examiner	Level	N/A		Signature			Date Site R			·····		Signat	ure		Date
N/A							Phill	PE.Buk	es		Phil	les C.	Buken	May 13	2002
Other	Level	N/A		Signature			Date ANII F	Reviøw				Signal	yre	0 -	Date
N/A							<u> </u>	ames Wi	Niem	erq (	]a	www/	icimery	13MAYU	8
										J	/		5		

<b>1</b> 3	\$	Site/Unit:	KPS	,	1	unora	Pro	edure:	FR-AA-	NDE-UT-80	1 Rev. 0		Outage	No <sup>.</sup>	K1R29
<b>220</b> 00 . (200322)		mary No.:	<u> </u>	.C5.61.195		<u> </u>	Procedur			0			Report	<u> </u>	T-08-206
		orkscope:		PSI	<u></u>	-	Work Ord			07-009669	·····		•	age: 1	of <b>1</b>
					-										
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat./		C-F-2/C5.			Location:			JRBINE BUIL	JING	
Drawing No.:			ISIM-891-2			•	on: 3" FLANG		/ELD						
System ID:	AFW - FRO	DM AFW PU	IMPS 1A/1B AND	TURB. DRIVE		ISCH. TO P	EN. 46E								
Component ID:	ISIM-891-2	/AFW-W196	5						Size/	Length:	3"/10.99		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None				<u></u> .		<u></u>			St	art Time:	1120	Finis	h Time:	1129
	Instrum	ent Settings	S		Se	arch Unit		Cal.	1			 Λνία	Orientated S	earch Unit	
Serial No.;		01R5N	IW	Serial No.:		SC013	8	Checks	Time	Date		bration	Signal		1
Manufacturer:		GE INSPE	CTION	Manufactu	rer:	KRAUTK	RAMER	Initial Cal.	0710	4/25/2008	o 1 I		Amplitude %	Sweep Division	Sound Path
Model:		USN 60	sw	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1120	4/25/200	8 ID	Notch	80%	5.0	.600"
Delay:	4.9966	_ Range: _	1.2"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Ang	le: <u>60</u>		lements: Single	Inter. Cal. Final Cal.	N/A 1400	4/25/200					
Damping:	500 ohms	_ Reject: _	0%	Mode:		SHEAR		, marour.			≝				<u></u>
Rep. Rate:	Auto High	- Freq.: -	5.0 MHZ	Measured	·	······	59		Couplar						
Filter:	N/A 450	_ Mode: _ Other:	Fullwave P/W-100	Wedge Sty	/le:	MSW	ac	Cal. Batch:		07143	_		rential Orienta		
Voltage: Ax. Gain (dB):	32.5	Circ. Gair			Searc	h Unit Cable	•	· · · · · · · · · · · · · · · · · · ·	SONOTE			bration	Signal Amplitude %	Sweep Division	Sound Path
10 Screen [		- in. of	Sound Path	Туре:		C to MCD: F					-	N/A		·	
				Length:	6'	No. Conn.:		. Exam Batc		07143	_ [				
Linearity Repor	t No.:	L-0	8-003			Coverage		· · ·			-				
	Calibra	tion Block		L In stars 1		-		Mfg.:	SONOTE		-				
Cal. Block No.:		WPS-		Upstream			Scan dB: N/A	Ref	ference l	Block			erence/Simul		<u> </u>
Thickness:	0,300"	Dia.:	3"	CW		_	Scan dB: 44.5	Serial No.:	L	MT-111	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp.		ip. Tool:	259564	Exam Surf			D	Туре:	RON	IPAS	32.5	.3" SDH		5.0	.605"
Comp. Temp.:	<b>75</b> Terr		259564	Surface Co			TOPPED	-							
Recordable in	dication(s):	Yes	No 🗸	(If Yes, Ref.	Attached L	Ultrasonic Ind	lication Report.)								
Results:	Accept 🖌	Reje	ct 📋	info 🗌					Co				an in the circ d when skewe		
Percent Of Cov	verage Obtaine	ed > 90%:	No	Reviewed	Previous D	Data:	N/A				informed \	•		,u towarus	
Examiner	Level			Signature			Date Revie	wer				7 Signat	ure		Date
Pollock, Norm	nan E.		non	Pollen		4/2	25/2008 Je	mmy Tin	nM		h	the		5/13	\$/08
Examiner	Level	N/A		Signature				Review			Bhan	Signat			Date
N/A	- <u></u> -							IPE.Buk	es		Thelly	o C. Buk		May 13	
Other	Level	N/A		Signature				Review	,		$\neg$ "	Signat	ńte	0	Date
N/A					<u></u>		1-10	mesw.N	lemera	$\vdash$	- jame	uñu	mery	13MAY	08

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	inion <sup>:</sup>	Site/Unit:	KPS	/ 1		Proc	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage	No.:	K1R29
	Sum	mary No.:	K1.	.C5.61.195		Procedure	e Rev.:	_	0			Report	No.: <u>U</u>	T-08-207
	W	orkscope:		PSI		Work Orde	er No.:	<u> </u>	07-009669		_	P	age: <u>1</u>	of <u>1</u>
Code:	AS	ME Sect. XI	98 Ed/00 Add	Ca	at./Item:	C-F-2/C5.0	61		Location:		т	URBINE BUIL	DING	
Drawing No.:			ISIM-891-2		Descripti	on: 3" FLANGE	TO PIPE W	ELD			·····			·····
System ID:	AFW - FRO	OM AFW PU	MPS 1A/1B AND	TURB. DRIVEN PUMP	DISCH. TO PI	EN. 46E								
Component ID:	ISIM-891-2	2/AFW-W196	3					Size/	Length:	3"/10.99"		Thickness/D	iameter:	0.300"/3.5"
Limitations:	None					·····			Start	Time:	 1520 Finish Time:			1529
	instrum	ent Settings	<u> </u>	Search Unit				1						
Serial No.:		01R5N		Serial No.:	SC024	0	Cal. Checks	Time	Date	ļ		I Orientated S	earch Unit	
Manufacturer:		GE INSPE	CTION	Manufacturer:	KRAUTK		Initial Cal.	0720	4/25/2008	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	sw	Size: 0.25"	Shape:	ROUND	Inter. Cal.	1520	4/25/2008	ID Notch		80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.: 5.0 MH	Z Style:	COMP-G	Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	70 #ofE	lements: Single	Inter. Cal.	N/A	4/05/0000					
Damping:	500 ohms	Reject:	0%	Mode:	SHEAR		Final Cal.	1750	4/25/2008	L				
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured Angle:		<u>69</u>		Couplar	nt					
Filter:	N/A	_ Mode: _	Fullwave	Wedge Style:	MSW	QC	Cal. Batch:		07143		Circumfe	rential Orient	ated Search	u Unit
Voltage:	450 Other: P/W-100 42.3 Circ. Gain (dB): N/A						· · · · · · · · · · · · · · · · · · ·		RACE 40	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
Ax, Gain (dB):	42.3	_	Sound Path				Mfg.:	SONOTE	ECH INC.		/A			
10 Screen D	Div. = 1.94	in. of			BNC to MCD: I		Exam Batch	n:	07143		<u>~</u>			
Linearity Report	t No.:	L-0	8-003	`	No. Conn.:		···		RACE 40			·		
	Calibra	ation Block			an Coverage		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:		WPS-	60		wnstream 🖌 🦇	Scan dB: 48.3	Ref	erence l	Block					
Thickness:	0,300"	Dia.:	3"	cw 🗌	ccw 🗌 🥴	Scan dB: N/A	Serial No.:	L	MT-111	Gain dB	Pofloato	Signal r Amplitude %	Sweep 6 Division	Sound Path
Cal. Blk. Temp.	: <u>70</u> Tem	np. Tool:	259564	Exam Surface:	0	D	Type:	RON	APAS	42.3	.3" SDH		4.8	.930"
Comp. Temp.:	_ <b>75</b> Tem	np. Tool:	259564	Surface Condition:	FLAT	TOPPED		······································						
Recordable Inc	dication(s):	Yes	No 🔽	(If Yes, Ref. Attache	d Ultrasonic Ind	lication Report.)								
Results:	Accept 🖌	Reje	ct 🗌 🤺	Info				Co			•••	ntal 70 deg sc		
Percent Of Cov	erage Obtain	ed > 90%:	No	Reviewed Previou	s Data:	N/A			we	-	le to Weld	crown config	uration. Ris	sk informed
Examiner	Level	11	-	Signature		Date Review	wer				> Signa	tyre		Date
Pollock, Norm	an E.		Non	Polk	4/2	25/2008 Jere	my Ti.	mm		h	A	the second	51	13/08
Examiner	Level	N/A		Signature		Date Site R	_			5	Signat			Date
N/A	·····			<u>O:</u>			PE. But	<u>ses</u>		11	ulles (	Dukes	May 1	3,3008
Other N/A	Level	N/A		Signature			Review	1	$\mathcal{C}$		Signat		/ <b>7</b>	Date
IWA							amesw, M	reme	ng 🖵	-)am	mun	umury	13 MA	108

	Supplemental Report	
Dominion		Report No.: UT-08-205
		Page: of
Summary No.: KI (5.61.195 Examiner: Pollock Norman E.	Reviewer: Ireny	Timm Ar the Date: 5/13/08
Examiner: M/A		Kes Phillip C Buken Date: May 13 2008
Other: <u>N/A</u>	Level: N/A ANII Review: Jumesiu, N	iemery Danu Wiemen Date: 13MA408
Comments: COVERAGE PLO	r	
	Weld: AFW-W196	
Sketch or Photo:	Weld Crown Width: .70"	
	FLOW	
	(3)	
Thickness Measurements 1. NA		6.)
2. NA	Flange	
3380" 4344"		Pipe
5315"		
	Total Risk Info	ormed Examination Volume = .2457 Sq. Inches
	See.	
Axial Examination Coverage Upstream 48% 45 & 70 degr	Axial Examinati	on Coverage Downstream 100% 45 & 70 Degree
* 45 & 70 Degree Scans were also performed on flat top we Total Area of Coverage Achieved .071 Sq. Inch	es. *45 & 70 Deg.	ree Scans were Also Performed on Flat top weld.
Total Area of Risk Informed Examination Volume .1489 Sq. Inch	es	
Circ Examination Coverage Upstream 0%	With 45 degree an	Examination Coverage Downstream 100% nd Supplemented by 60 degree skew scans Clockwise and Counter Clockwise Scans were also performed on flat top weld
	****	
-		
Examination Volume Dimen	sions Height = .33"/ .15" Length 11.0" Width 1.70"	
	A. (-11)	
	Axial Upstream 100% Axial Downstream 48%	
	Circ Upstream 100% Circ Downstream 0%	
	Achieved 62% Risk Informed Examination Coverage	



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-35

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## 1. ASME Code Component Affected:

3" Auxiliary Feedwater Circumferential Weld AFW-W197 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

## 4. Impracticality of Compliance:

33.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W197 was inaccessible due to Pipe to Flange Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 33.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W197 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W197 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-35

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

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Not Applicable

	alimet	Site/Unit:	KPS	1	1		Pro	cedure:	ER-AA-	NDE-UT-801 I	Rev. 0		Outage	No.:	K1R29
Bioschief         StorUnit         KPS         /         1         Procedure         ER-ANDEUT-001 Rev. 0         Outage No::         K1162           Summary No:         K1.656.1156         Procedure Rev.         0         07-002665         Provide No::         07-002666         Provide No::         07-002666         Provide No::         07-002666         Provide No::         07-002666 <td>T-08-208</td>		T-08-208													
	v	/orkscope:		PSI		-	Work Or	ler No.:		07-009669		-	•		of <b>1</b>
Code:	A	SME Sect. XI	98 Ed/00 Add		Cat./I	- Item:	C-F-2/C5	.61		Location:		<u>—</u> т	JRBINE BUILI	DING	
						Descriptio	n: 3" PIPE T	O FLANGE W	ELD						
U	AFW - FR			TURB. DRIVE	 N PUMP D	ISCH. TO PE	N. 46E			<u> </u>			······································		·
	ISIM-891-	2/AFW-W197							Size/	Lenath: 3	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
•	· · · ·											1000			1019
				· ···											
0.111	Instrun	-							Time	Date		Axia	Orientated S	earch Unit	
									0700	4/25/2008					Sound Path
												· · · · · · · · · · · · · · · · · · ·	·····		.461"
Delay:	3.3775	Range:	.939"					Inter. Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Ang	gle: <b>45</b>	# of Ele	ements: Singl	€							
Damping:	500 ohms	Reject:		Mode:		SHEAR		Final Cal.	1350	4/25/2008					
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured	i Angle:	4	5	-	Couplar	nt					
	_		·	Wedge S	tyle:	MSWC	2C	-				Circumfe	rential Orienta	ted Search	Unit
				<u> </u>	_			· · · ·						•	Sound Path
. ,		_		<u> </u>				Mfg.:	SONOTE	ECH INC.				Division	
Screen D	iv. = .939	in. of										^	· · · · · · · · · · · · · · · · · · ·		
Linearity Report	No.:	L-08	3-003	Lengen.	······										1
	Calibr	ation Block				,		Ŭ	SONOTE	ECH INC.					
Cal. Block No.:		WPS-6			_			- Ket	erence l	Block		Ref	erence/Simula	ator Block	
		• • • • • • • • • • • • • • • • • • • •			_			- Serial No.:	L	MT-111		Reflector			Sound Path
Cal. Blk. Temp.:					<b></b>			_ Туре:	RON	/IPAS			1		.452"
• •								-							
Recordable inc	lication(s):	Yes	No 🖌	(If Yes, Ref	. Attached U	Iltrasonic Indi	cation Report.	)						Τ	
Results:	Accept 🖌	Rejec	t 🔲	Info 🗌					Co	omments: 0 d	leg lamina	ation scan	performed. F	lisk inform	ed weld.
Percent Of Cov	erage Obtair	ed > 90%;	No	Reviewed	l Previous D	Data:	N/A	<u> </u>							
Examiner	Level	ll					Date Revi	ewer	·· · · · · · · · · · · · · · · · · · ·			/ Signat		·····	Date
Pollock, Norm	an E.		nonal	Selle		4/2	5/2008 Jc	remy Tim	M		de	Z	X .	57	13/08
	Level	N/A		Signature			Date Site	Review			DAN	-			Date
			······						Kes	/	Thelly			Thay 1	32008
Other N/A	Level	<b>N/A</b>		Signature				Review	I.	$\bigcirc$		Signati	ure		Date
		<u></u>				· · · · · · · ·	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	amosw.N	lemer	4	umerle	in cen		13MAYU	8

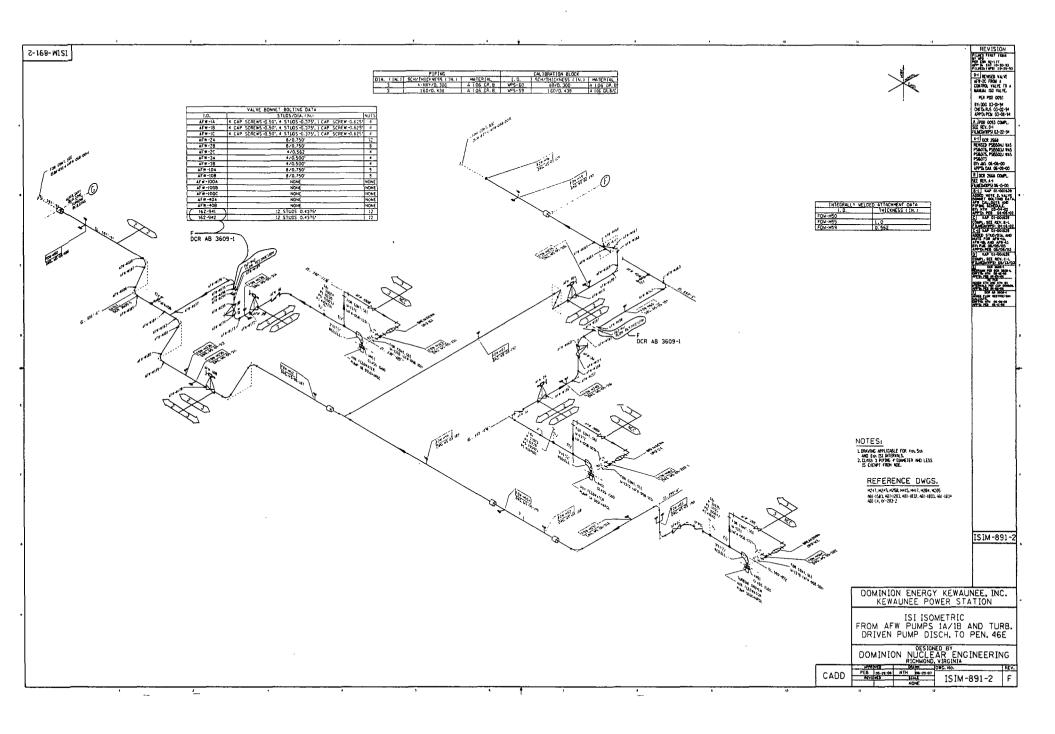
	Site/Unit:     KPS     /     1     Procedure:     ER-AA-NDE-UT-801 Rev. 0     Outage No.:     K1R29       Summary No.:     K1.C5.61.196     Procedure Rev.:     0     Report No.:     UT-08-209														
<b>Still</b> Com	inion	Site/Unit:	KPS	/ 1	l	• ·	Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0	_	Outage	No.:	K1R29
		-	K1	I.C5.61.196		-	Procedure	Rev.:		0			•		T-08-209
	We	orkscope:		PSI		-	Work Orde	er No.:		07-009669		_	F	Page: 1	of <b>1</b>
Code:	ASI	ME Sect. XI	98 Ed/00 Add		Cat./I	tem:	C-F-2/C5.6	51		Location:		٦	<b>FURBINE BUIL</b>	DING	
Drawing No.:			ISIM-891-2			Description	n: 3" PIPE TO	FLANGE W	'ELD						
System ID:	AFW - FRC	OM AFW PU	MPS 1A/1B AND	TURB. DRIVE	N PUMP DI	SCH. TO PEI	N. 46E								
Component ID:	ISIM-891-2	/AFW-W197	7						Size/	Length:	3"/10.99"		Thickness/D	iameter:	0.300"/3.5"
Limitations:	None									Start	Time:	1130	Fini	sh Time:	1139
	Instrume	ent Settings			Sea	arch Unit			1						
Serial No.:		01R5N		Serial No.:		SC0138		Cal. Checks	Time	Date			al Orientated		
Manufacturer:		GE INSPE	CTION	Manufactu		KRAUTKR	AMER	Initial Cal.	0710	4/25/2008	Calibi Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	SW	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1130	4/25/2008	ID N	otch	80%	5.0	.600"
Delay:	4.9966	Range:	1.2"	Freq.:	5.0 MHZ	Style:	COMP-G	Inter. Cal.	N/A					· · · · · · · · · · · · · · · · · · ·	
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angl	e: <u>60</u>		ments: Single	Inter. Cal. Final Cal.	N/A 1400	4/25/2008					
Damping:	500 ohms Auto High	- Reject: -	0% 5.0 MHZ	Mode:		SHEAR		<b></b>	Couplar						<u> </u>
Rep. Rate:	N/A	_ Freq.: _ Mode:	Fullwave	Measured / Wedge Sty		59 MSWQ		Cal. Batch:	•	07143		Circumf	erential Orient	ated Search	
Voltage:	450	Other:	P/W-100	Wedge Oty			<u> </u>			RACE 40	Calibr		Signal	Sweep	·
Ax, Gain (dB):	32.5	Circ. Gair	(dB): <b>N/A</b>		Search	n Unit Cable			SONOTE	ECH INC.	Refle		Amplitude %	Division	Sound Path
10 Screen	Div. = 1.2	in. of	Sound Path	Туре:	BNC	C to MCD: R	G-174	Exam Batcl	h:	07143	N	A			
Linearity Repor	rt No.:	L-0	8-003	Length:	6'	No. Conn.:	0			RACE 40					
	Calibra	tion Block			Scan	Coverage		Mfg.:	SONOTE	ECH INC.	<u> </u>				
Cal. Block No.:	:	WPS-	60	Upstream [	Downs	stream 🔲 So	an dB: N/A	Ref	erence l	Block		Re	eference/Simu	lator Block	
Thickness:	0.300"	Dia.:	3"	CW [		ccw 🗹 sa	an dB: 44.5	Serial No.:		MT-111	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp	o.: <b>70</b> Tem	np. Tool:	259564	Exam Surfa	ace:			Туре:		/PAS	dB 32.5	.3" SD	or Amplitude 6	Division 5.0	.605"
Comp. Temp.:	<b>75</b> Tem	np. Tool:	259564	Surface Co	ondition:	FLAT T	OPPED				32.0	.5 30	1078		.003
Recordable In	ndication(s):	Yes	□ No 🖌	(If Yes, Ref. /	Attached U	Itrasonic Indic	ation Report.)								
Results:	Accept 🖌	Reje	ct 🗌	Info 🗌					Co				can in the circ		
Percent Of Co	verage Obtaine	ed > 90%:	No	Reviewed	Previous D	ata:	N/A				eld root si ormed we	•	ed when skew	ed towards	weld. Risk
Examiner	Level	!!		Signature			Date Review	wer				Signa	ature		Date
Pollock, Norn	nan E.		nona	Pallk		4/25	1/2008 Je	ICMY T.	MM			r E	the	5/1	3/08
Examiner	Level	N/A		Signature			Date Site R	eview			-DA	Signa			Date
N/A				Oliveration				IP E.BI	<u> Kes</u>		Phil		Bukes	May 1.	32008
Other N/A	Level	N/A		Signature			Date ANII F		A ]	$\sim$		Signa	ement	<i>V</i>	Date
								āmes W,	Vieme	era	james	will	emery	13 mm	-08

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<b>S</b> ami	měori	Site/Unit:	KPS	/ 1		Pro	cedure:	ER-AA-	NDE-UT-80	1 Rev. 0	_	Outage	No.:	K1R29
	Sur	nmary No.:	K	1.C5.61.196		Procedur	e Rev.:		0			Report	No.: L	T-08-210
	v	Vorkscope:		PSI		Work Ord	le <u>r</u> No.:		07-009669		_	Pa	age: 1	of 1
Code:	A	SME Sect. XI	98 Ed/00 Add		Cat./Item:	C-F-2/C5	61		Location:		Т	URBINE BUILI	DING	
Drawing No.:			ISIM-891-2		Descrip	tion: 3" PIPE TO	FLANGE W	ELD	_					
System ID:	AFW - FR	OM AFW PU	IMPS 1A/1B AND	TURB. DRIVEN PU	IMP DISCH. TO I	PEN. 46E								
Component ID:	ISIM-891-	2/AFW-W197	7					Size/I	Length:	3"/10.99"		Thickness/Di	ameter:	0.300"/3.5"
Limitations:	None				· · · · · · · · · · · · · · · · · · ·				Sta	rt Time:	1530	Finis	h Time:	1539
	Instrun	nent Settings	S		Search Unit									
Serial No.:		01R5N		Serial No.:	SC02	40	Cal. Checks	Time	Date			al Orientated S		
Manufacturer:	<u> </u>	GE INSPE	CTION	Manufacturer:		RAMER	Initial Cal.	0720	4/25/2008	Calibi		Signal Amplitude %	Sweep Division	Sound Path
Model:		USN 60	SW		25" Shape:	ROUND	Inter. Cal.	1530	4/25/2008	IDN		80%	5.0	.954"
Delay:	6.6259	Range:	1.94"	Freq.: 5.0 f	MHZ Style:	COMP-G	Inter, Cal.	N/A						
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	<b>70</b> # of I	Elements: Single	Inter, Cal.	N/A	4/05/0000				·	
Damping:	500 ohms	Reject:	0%	Mode:	SHEAF	1	Final Cal.	1750	4/25/2008	<u>الا</u> لا	$ \_ \_$			
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured Angl	e:	69	-	Coupiar	nt			l	······	·
Filter:	N/A	Mode:	Fullwave	Wedge Style:	MSV	VQC	Cal. Batch:		07143	_ [	Circumfe	erential Orienta	ated Search	n Unit
Voltage:	450	Other:	P/W-100				Туре:	SONOT	RACE 40	Calib		Signal	Sweep	Sound Path
Ax. Gain (dB):	42.3	Circ. Gair	n (dB): N/A		Search Unit Cab	le	Mfg.:	SONOTE	ECH INC.	- Refle		Amplitude %	Division	
10 Screen D	Div. = <b>1.94</b>	in. of	Sound Path	Туре:	BNC to MCD:	RG-174	Exam Batch	ו:	07143	<u>N/</u>	'A	<u> </u>		
Linearity Report	No.:	L-0	8-003	Length: 6	No. Conn.	:0	Type:	SONOTE	RACE 40	-				
	Calibr	ation Block	-		Scan Coverage	•	Mfg.:	SONOTE	ECH INC.	[				
Cal. Block No.;		WPS-	60	Upstream 🖌	Downstream 🖌	Scan dB: 48.3	Bof	erence E	Block	-	Re	ference/Simula	ator Block	
Thickness:	0.300"	Dia.:	3"	cw 🗌	ccw	Scan dB: N/A	- Serial No.:		MT-111	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <b>70</b> Te	mp. Tool:	259564	Exam Surface:		OD	- Type:		/PAS	- <u>dB</u>	Reflecto			l
Comp. Temp.:	<b>75</b> Te	mp. Tool:	259564	Surface Conditi	ion: FLA	T TOPPED				- 42.3	.3" SD⊦	1 60%	4.8	.930"
Recordable inc	dication(s):	Yes	□ No 🗹	(If Yes, Ref. Attac	ched Ultrasonic In	dication Report.)	-						1	
Results:	Accept 🖌	] Reje	ct	Info 🔲				Co				ntal 70 deg sc		
Percent Of Cov	erage Obtair	ned > 90%:	<u>No</u>	Reviewed Prev	vious Data:	N/A				overage du /eld.	le to weld	l crown config	uration. Ri	sk informed
Examiner	Level	 II		Signature	<sup></sup>	Date Revie		_			Igna	ture		Date
Pollock, Norm	an E.		none	n Poll	4.	/25/2008 Jc	iemy T.	mm			la ki	the -	57	13/08
Examiner	Level	N/A		Signature		1	Review			hi	Śigna	ture		Date
N/A		<u> </u>					ILIPE.	Buke	25	The	llip (	: Bukes	May 1	2008
Other	Level	N/A		Signature			Review	. [.	Ċ	$\frown$	Signa		0	Date
N/A			<u> </u>				Jamesu		smera	- Ja	mes le 7	Viemery	13 MM	1708

## **Supplemental Report**

8 S S S S S S S S S S S S S S S S S S S	Supplemental Kel	JUIL	
S.		Re	eport No .: UT-08-208
Dominion			Page: 1 of 1
Summary No.: KI, C5, 61, 196			
	man Level: I Reviewe	F. JEREMY TIMM Good	Date: 5713/68
Examiner: NA			C Buten Date: Man 132003
Other: NA			Willinery Date: 13MAY08
	Level: <u>NA</u> ANII Review	V. Jamesouris emergy and	Date. 15min 100
Comments: COVERAGE	PLOT		
Sketch or Photo:	10/01d: 0 E10/ 10/107		
	Weld: AFW-W197 Weld Crown Width: .70"		
Thickness Measurements 1326"			
2. 323" 3. 447"	Flow		
4. NA 5. NA	3.		
(1.)			
	Flan	0e	
Pipe		7	
		• •	
		Total Disk Informed Exeminatio	Nolume - 2078 for Inches
		Total Risk Informed Examinatio	n volume = .3276 Sq. Inches
Axial Examination Coverage Upstream 100% 45 & 70 Degre * 45 & 70 Degree Scans were Also Performed on Flat top we	e Allinia	Axial Examination Coverage Downstream	n 69% 45 & 70 degree
		* 45 & 70 Degree Scans were also perfor Total Area of Coverage Achieved .1443 \$ Total Area of Risk Informed Examination	med on flat top weld. Sq. Inches.
Circ Examination Coverage Upstream 100% With 45 degree and Supplemented by 60 degree skew scan	15		FORT OF THE
Clockwise and Counter Clockwise * 45 and 60 degree Scans were also performed on flat top w	veld	Circ Examination Coverage Downstream	0%
Examination	Nolume Dimensions Height = .15"/ .33" Lengt	h 11.0" Width 1.70"	
	Axial Upstream 100% Axial Downstream 69%		
	Circ Upstream 100% Circ Downstream 0%		
	Achieved 67% Risk Informed Examination Cov	erage	



## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-36

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

## INSERVICE INSPECTION IMPRACTICALITY

## **1. ASME Code Component Affected:**

3" Auxiliary Feedwater Circumferential Weld AFW-W198 Preservice Examination

## 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-F-2; Item No. C5.61

## 4. Impracticality of Compliance:

38.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W198 was inaccessible due to Flange to Pipe Configuration restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 38.0% of the 3" Auxiliary Feedwater Circumferential Weld AFW-W198 would require modification of the original design of the Auxiliary Feedwater Piping.

## 6. **Proposed Alternative and Basis for Use:**

No alternative Code required Ultrasonic examination is available due to the limited access. The following were performed as part of the installation of weld AFW-W198 during the 2008 Refueling Outage: Baseline radiography as required by Kewaunee Power Station Construction Code and ASME Boiler and Pressure Vessel Code Section III, VT-2 System Leakage Test and Magnetic Particle Surface examination to satisfy ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda Repair/Replacement requirements. Inservice

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-36

Inspection examinations, if required, will be performed by the Radiography Method to achieve required examination volume.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Not Applicable

#### 9. References:

Not Applicable

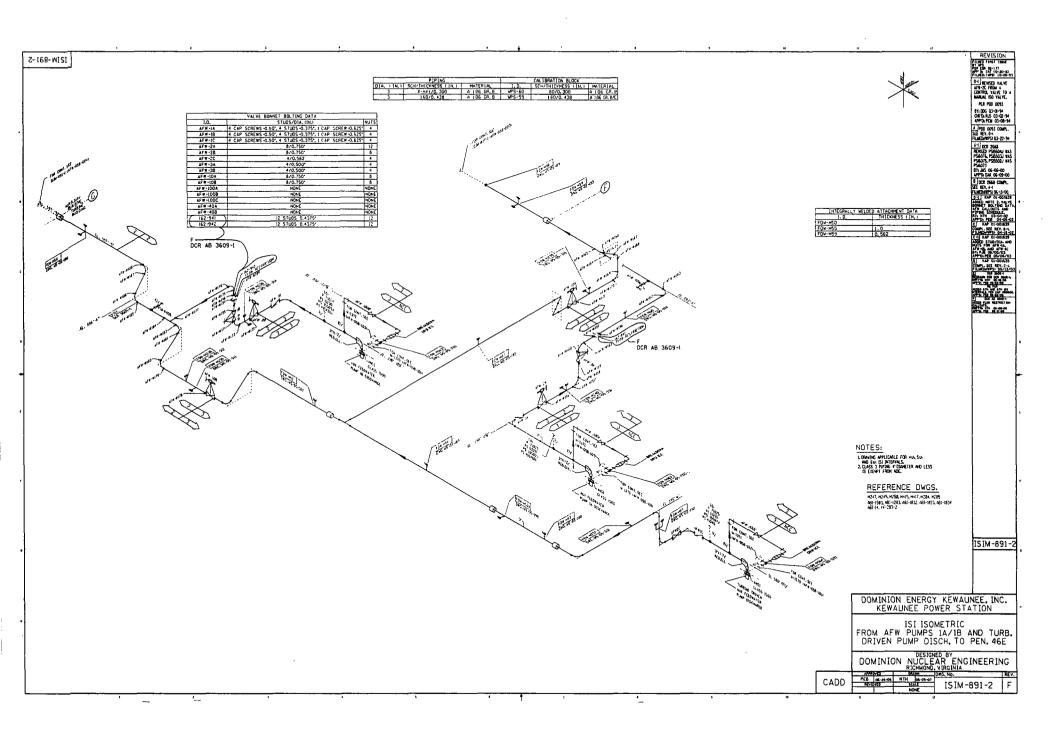
				Ŭ	· eanorau			••						
🐠 Dami	inion	Site/Unit:		/ 1		Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0		Outage		······
	Su	mmary No.:	K1	.C5.61.197		Procedure	Rev.:	··	0		_	Report	No.:	T-08-211
	V	Vorkscope:		PSI		Work Orde	er No.:		07-009669		_	Pa	age: <u>1</u>	of <u>1</u>
Code:	A	SME Sect. X	i 98 Ed/00 Add		Cat./Item:	C-F-2/C5.6	1		Location:		τυ	RBINE BUILI	DING	
Drawing No.:			ISIM-891-2		Description	n: 3" FLANGE	TO PIPE W	'ELD					1	
System ID:	AFW - FF	ROM AFW PL	JMPS 1A/1B AND	TURB. DRIVEN PU	MP DISCH. TO PE	N. 46E								
Summary No.:         K1.C5.61.197         Procedure Rev.:         0         Report No.:         UT-08-211           Workscopu:         PSI         Work Order No.:         07-095669         Page:         1         d           Code:         ASME Sect. X1 95 Ed00 Add         Cal.Inter:         C-2425.61         Location:         TURBINE BUILDING           System ID:         AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Disciption: 3" FLANGE TO PIPE VELD         Start Time:         1010         Pinickness/Disensity:         0.309"/35.5           Component D:         BIM-991-2AFW-W198         Start Time:         1010         Pinickness/Disensity:         0.309"/35.5           Limitations:         One         Start Time:         1010         Pinickness/Disensity:         0.309"/35.5           Seatal No::         OT185WW         Sord INN:         Sord INN:		0.300"/3.5"												
Limitations:	None			, <u>,,</u> _,, <u>,,</u>	· · · · · · · · · · · · · · · · · · ·				Start	Time:	1010	Finis	h Time:	1019
	Instrur	nent Setting	s		Search Unit									
Serial No.:	··········	-		Serial No :				Time	Date			r		<del></del>
Manufacturer:		GE INSPE	CTION				Initial Cal.	0700	4/25/2008					Sound Path
Model:		USN 60	SW		5" Shape:	ROUND			4/25/2008	ID N	otch	80%	5.0	.461"
Delay:	3.3775	Range:	.939"	Freq.: 5.0 M	HZ Style:	COMP-G								
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Angle:	45 # of Ele	ments: Single			4/05/0000					
Damping:	500 ohms	Reject:		Mode:	SHEAR	<u> </u>	Finar Cai.	1350	4/25/2008					ļ
Rep. Rate:	Auto-High	Freq.:	5.0 MHZ	Measured Angle	: <u>45</u>	<u> </u>		Couplar	nt	ļ				
Filter:	N/A	Mode:	Fullwave	Wedge Style:	MSWQ	С	Cal. Batch:		07143		Circumfer	ential Orienta	ted Search	Unit
Voltage:	450	Other:	P/W-100				Туре:	SONOTI	RACE 40	Calibi			Sweep	Cound Dath
Ax. Gain (dB):	19.0dB	Circ. Gair	n (dB): <b>19.0d</b> B	<u> </u>	earch Unit Cable		Mfg.:	SONOTE	ECH INC.	Refle	ctor A	mplitude %	Division	Sound Pain
10 Screen D	Div. = <b>.93</b>	9 in. of	Sound Path	Туре:	BNC to MCD: R	G-174	Exam Batch	n:	07143	N/	'A			<u> </u>
Linearity Report	t No.:	L-0	08-003	Length: <u>6'</u>	No. Conn.:	0	Туре:	SONOTI	RACE 40				<u></u>	·
	Calib	ration Block		<u></u>	Scan Coverage		Mfg.:	SONOTE	ECH INC.	}				<u> </u>
Cal. Block No.:		WPS-	60	Upstream 🔽 🛛	Downstream 🖌 So	can dB: <b>31.0</b>	Pof	eronce	Block	<u> </u>	Refe	erence/Simula	ator Block	4
Thickness:	0.300"	Dia.:	3"	cw 🖌	CCW 🗹 So	can dB: 37.0							Sweep	Sound Path
Cal. Blk. Temp.	: <b>70</b> Te	mp. Tool:	259564	Exam Surface:	00	)								
Comp. Temp.:	<b>75</b> Te	mp. Tool:	259564	Surface Condition	on: FLAT 1	OPPED	. <b>.</b>			25.0	.3 501	44%	4.8	.452
Recordable In	dication(s):	Yes	🗌 No 🗹	(If Yes, Ref. Attacl	hed Ultrasonic India	ation Report.)								
Results:	Accept 🖌	Reje	ct	Info 🔲				Co	omments: <b>0 d</b>	leg lamin	ation scan	performed. F	lisk inform	ed weld.
Percent Of Cov	/erage Obtai	ned > 90%:	No	Reviewed Previ	ous Data:	N/A							· P	
Examiner	Level	u	-	· · · ·		Date Review	ver			1	Signati			Date
Pollock, Norm	nan E.		non	Paller	4/25	1/2008 Jere	my Tin	1M_		hu	tit		51	13/08
Examiner	Level	N/A		Signature		1	eview		~		Signati	ire		Date
N/A						Phil	IP E.BU	Kes	P	helles	C Bu	kes	May 13	2008
Other	Level	N/A		Signature		Date ANII F	leview			$\overline{}$	Signatu	Ire	0	Date
N/A						Ja	mes WiN	remer	4	Jam	una	mery	13MAYU	8
									J 7					

Site/Unit:       KPS       /       1       Procedure:       ER-AA-NDE-UT-801 Rev. 0       Outage No.:       K1R29         Summary No::       K1.C5.61.197       Procedure Rev.:       0       Report No.:       UT-08-21         Workscope:       PSI       Work Order No.:       07-009669       Page:       1       of         Code:       ASME Sect. XI 98 Ed/00 Add       Cat/Item:       C-F-2/C5.61       Location:       TURBINE BUILDING       UT-08-21         Drawing No.:       ISIM-891-2       Description:       3" FLANGE TO PIPE WELD       UT-08-21       0         System ID:       AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E       Size/Length:       3"/10.99"       Thickness/Diameter:       0.300"/3         Limitations:       None       Size/Length:       3"/140       Finish Time:       1140       Finish Time:       1149	12 1
Work Scope:       PSI       Work Order No.:       07-009669       Page:       1       of         Code:       ASME Sect. XI 98 Ed/00 Add       Cat./Item:       C-F-2/C5.61       Location:       TURBINE BUILDING       I       I       of         Drawing No.:       ISIM-891-2       Description:       3" FLANGE TO PIPE WELD       I       of       I       of         System ID:       AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E       I       I       of       I       of         Component ID:       ISIM-891-2/AFW-W198       I       Size/Length:       3"/10.99"       Thickness/Diameter:       0.300"/3	1 3.5"
Code:       ASME Sect. XI 98 Ed/00 Add       Cat./Item:       C-F-2/C5.61       Location:       TURBINE BUILDING         Drawing No.:       ISIM-891-2       Description:       3" FLANGE TO PIPE WELD       V       V         System ID:       AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E       Size/Length:       3"/10.99"       Thickness/Diameter:       0.300"/3	3.5"
Drawing No.:       ISIM-891-2       Description:       3" FLANGE TO PIPE WELD         System ID:       AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Component ID:       ISIM-891-2/AFW-W198       Size/Length:       3"/10.99"       Thickness/Diameter:       0.300"/3	9
System ID:       AFW - FROM AFW PUMPS 1A/1B AND TURB. DRIVEN PUMP DISCH. TO PEN. 46E         Component ID:       ISIM-891-2/AFW-W198         Size/Length:       3"/10.99"         Thickness/Diameter:       0.300"/3	9
Component ID: ISIM-891-2/AFW-W198 Size/Length: 3"/10.99" Thickness/Diameter: 0.300"/3	9
	9
Limitations: None Start Time: 1140 Finish Time: 1149	
	J Path
Instrument Settings Search Unit Column I and Annual An	d Path
Serial No.: 01R5NW Serial No.: SC0138 Checks Date Axial Orientated Search Unit	d Path
	00"
Delay:         4.9966         Range:         1.2"         Freq.:         5.0 MHZ         Style:         COMP-G         Inter. Cal.         N/A	
M'tl Cal/Vel: .1268 Pulser: Square Exam Angle: 60 # of Elements: Single Inter. Cal. N/A	
Damping:         500 ohms         Reject:         0%         Mode:         SHEAR         Final Cal.         1400         4/25/2008	
Rep. Rate:     Auto High     Freq.:     5.0 MHZ     Measured Angle:     59     Couplant	
Filter: N/A Mode: Fullwave Wedge Style: MSWQC Cal. Batch: 07143 Circumferential Orientated Search Unit	
Voltage:     450     Other:     P/W-100     Type:     SONOTRACE 40     Calibration     Signal     Sweep       Ax (ain (dB):     32.5     Circ (ain (dB):     N/A     Search Unit Cable     Mfg :     SONOTECH INC     Reflector     Amplitude %     Division	d Path
AX. Gair (db). USA Giro, Gair (db). IVA Search Oline Milg SONOTECH INC.	
Coreen Div. = IN. 61 Provide the core is t	<u> </u>
Linearity Report No.: Type: Type: Type:	
Calibration Block Scan Coverage Mfg.: SONOTECH INC.	
Cal. Block No.: WPS-60 Upstream Downstream Can dB: N/A Reference Block Reference/Simulator Block	
Thickness: 0.300" Dia.: 3" CW 🗹 CCW 🖉 Scan dB: 44.5 Serial No.: LMT-111 Gain Bignal Sweep Division Sound	d Path
Cal. Blk. Temp.: 70 Temp. Tool: 259564 Exam Surface: OD Type: ROMPAS 32.5 .3" SDH 70% 5.0 .60	
Comp. Temp.: 75 Temp. Tool: 259564 Surface Condition: FLAT TOPPED	
Recordable Indication(s): Yes No 🖌 (If Yes, Ref. Attached Ultrasonic Indication Report.)	
Results:       Accept 🖉       Reject []       Info []       Comments:       Performed skewed scan in the circumferential direction	
Percent Of Coverage Obtained > 90%:       No       Reviewed Previous Data:       N/A       Weld root signal noted when skewed towards weld. Right informed weld.	isk
	Date
Pollock, Norman E. Nomen Paller 4/25/2008 Jeremy Timm In Christian 5/13/08	
Examiner Level N/A Signature Date Site Review Signature	Date
NA Philip E. Bukes Thelep C. Bukes May 13200	_
	Date
N'A James WINiemera ) ames WT (Lemery 13m 4408	,

					0.	Junioral		mado								
<b>de C</b> omi	inion	Site/Unit:	KPS	/	1		Proce	edure:	ER-AA-	NDE-UT-801	Rev. 0	_	Outage	No.:	K1R29	
	Sum	mary No.:	K <sup>-</sup>	I.C5.61.197			Procedure	Rev.:		0			Report	No.:	JT-08-213	3
	W	orkscope:		PSI			Work Orde	er No.:		07-009669			Р	age: 1	of	1
Code:	ASI	ME Sect. X	l 98 Ed/00 Add		Ca	at./item:	C-F-2/C5.6	51		Location;		T	URBINE BUIL	DING		
Drawing No.:			ISIM-891-2		-	Descriptio	on: 3" FLANGE	TO PIPE W	ELD		·					
System ID:	AFW - FRC	M AFW PU	JMPS 1A/1B AND	TURB. DRIV	EN PUMF	DISCH. TO PE	EN. 46E						· · · · · ·			
Component ID:	ISIM-891-2	/AFW-W198	8						Size/	Length:	3"/10.99"		Thickness/D	iameter:	0.300"/3.	.5"
Limitations:	None	<u></u>								Star	t Time:	1540	Finis	sh Time:	1549	
	Instrum	ent Setting				Search Unit			1							
Serial No.:	msauma	o1R5N		Serial N		Sco24	n	Cal. Checks	Time	Date		Axia	I Orientated S	earch Unit		
Manufacturer:		GE INSPE		Manufac		KRAUTKE	<b>.</b>	Initial Cal.	0720	4/25/2008	Calib Refle		Signal Amplitude %	Sweep Division	Sound	Path
Model:		USN 60	sw	Size:	0.25"	Shape:	ROUND	Inter. Cal.	1540	4/25/2008	ID N		80%	5.0	.954	4"
Delay:	6.6259	Range:	1.94"	Freq.:	5.0 MH2	Z Style:	COMP-G	Inter. Cal.	N/A						-	
M'tl Cal/Vel:	.1268	Pulser:	Square	Exam Ai	ngle:	70 # of El	ements: Single	Inter. Cal. Final Cal.	N/A	4/25/2008						
Damping:	500 ohms	- Reject: -	0%	Mode:		SHEAR		·	1750	4/25/2008					<u> </u>	
Rep. Rate:	Auto-High	- Freq.: -	5.0 MHZ	Measure	-		9		Couplar							
Filter:	N/A 450	_ Mode: Other:	Fullwave P/W-100	Wedge S	Style:	MSWO	20	Cal. Batch:		07143 RACE 40		r-	rential Orient			
Ax. Gain (dB):	42.3	Circ. Gair			Sea	arch Unit Cable	•	· · ·	SONOTE		Caliba Refle		Signal Amplitude %	Sweep Division	Sound	Path
10 Screen		- in. of	Sound Path	Туре:		BNC to MCD: F					N	/A		· · · · · · · · · · · · · · · · · · ·	1	
Linearity Report		· · ·	08-003	Length:	6'	No. Conn.:	0	Exam Batcl		07143 RACE 40						
Encanty hopon					Sc	– can Coverage			SONOTE						<u> </u>	
Cal. Block No.:		tion Block WPS-	60	Upstrea		wnstream 🖌 S	Scan dB: <b>48.3</b>	Ŭ								
Thickness:	0.300"	Dia.:	3"		N []		Scan dB: N/A		erence E		Gain	Rei	erence/Simul Signal	Sweep	T	
Cal. Blk. Temp.		p. Tool:	259564	Exam Si		0		Serial No.:		MT-111	dB	Reflector	1 ×		Sound	Path
Comp. Temp.:	<b>75</b> Tem	·	259564		Condition:			Type:	RON	IPAS	42.3	.3" SDH	60%	4.8	.930	) <sup>11</sup>
Recordable In	dication(s):	Yes	N₀ 🖌	(If Yes, Re	ef. Attache	d Ultrasonic Ind	ication Report.)								┼───	
Results:	Accept 🔽		ct []	Info 🗍			• •		Cr	omments: Pe			ntal 70 deg sc	an to obtai		
									00	co	verage du		crown config			ned
Percent Of Cov	/erage Obtaine	ed > 90%:	No	Reviewe	ed Previou	s Data:	N/A			We	eld.					
Examiner	Level	li		Signature			Date Review	ver				Signat	ure /		1	Date
Pollock, Norm			None	- Palk	<u></u>	4/2	5/2008 Jen	emy 7	imm			m C	the	5/13	108	
Examiner	Level	N/A		Signature			Date Site R	eview	1			Signat				Date
N/A	1 avel			Dianatura				IPEB	uKes		Th	lipl	Dukes	They	<u>13,200</u>	8
Other N/A	Level	N/A		Signature			Date ANII F	ieview	A June -			らignat インア	iemeral	13 M	AY 08	Date
L							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mes with	V/ C#10	1			<u> </u>			



	Supplemental Report
Dominion	Report No.: <u>UT-08-211</u> Page: <u>1</u> of <u>1</u>
ummary No.: KI. C.5. 61. 197	
Examiner: Pollock Norman E. Pollock	M Level: II Reviewer: Joremy Timm with Date: 5/13/08
Examiner: <u>NIA</u>	Level: N/A Site Review: Phillip E. Bukes Phillip Chikas Date: May 132
Other: MA	Level: N/A ANII Review: James W, Niemera James W Kumerey Date: 13 MAYOZ
COVERIGE Comments: PLOT	
	Weld: AFW-W198
Sketch or Photo:	Weld Crown Width: .70"
	FLOW
	3
Thickness Measurements	
2. NA Fia 3380" 4344" 5315"	Pipe
	Total Risk Informed Examination Volume = .2457 Sq. Inches
	KX Sec
Axial Examination Coverage Upstream 48% 45 & 70 degree * 45 & 70 Degree Scans were also performed on flat top weld. Total Area of Coverage Achieved .071 Sq. Inches. tal Area of Risk Informed Examination Volume .1489 Sq. Inches	Axial Examination Coverage Downstream 100% 45 & 70 Degree * 45 & 70 Degree Scans were Also Performed on Flat top weld.
Circ Examination Coverage Upstream 0%	Circ Examination Coverage Downstream 100% With 45 degree and Supplemented by 60 degree skew scans Clockwise and Counter Clockwise * 45 and 60 degree Scans were also performed on flat top weld
Examination Volume Dimension	ns Height = .33"/ .15" Length 11.0" Width 1.70"
,	Axial Upstream 100% Axial Downstream 48% Circ Upstream 100% Circ Downstream 0%
	Achieved 62% Risk Informed Examination Coverage



#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-37

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

Letdown Heat Exchanger AHLD Shell Circumferential Weld AHNR-W1

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-A; Item No. C1.10

#### 4. Impracticality of Compliance:

77.5% of the Letdown Heat Exchanger Shell Circumferential Weld AHNR-W1 was inaccessible due to configuration of the Letdown Heat Exchanger Flange to Shell, two (2) Welded Supports, and the 2" Inlet Nozzle and 2" Outlet Nozzle thus restricting Ultrasonic Examination.

#### 5. Burden Caused by Compliance:

To provide for access to the 77.5% of the Shell Circumferential Weld AHNR-W1 would require modification from the Original Design of the Letdown Heat Exchanger.

#### 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the first and second periods of the 4th Interval as required by ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda: Table IWC-2500-1; Examination Category C-H; Item C7.10 for evidence of leakage.

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

## RELIEF REQUEST NO: RR-G-5-37

## 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 – June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-13 for similar Letdown Heat Exchanger Head Circumferential Weld AHNR-W2.

#### 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.11). [ADAMS Accession No. ML061660437]

			ι	JT Calibra	atio	ninatio	n						
Domi	nion <sup>*</sup> Site/Unit:	KPS	/ 1		Proce	edure:	NE	P-15.16 Rev. 3	3		Outage N	0.:	K1R30
	Summary No.:	К1.	C1.10.005		Procedure	Rev.:		3			Report N	o.: U	T-09-031
	Workscope:		ISI		Work Orde	er No.:	ĸ	W100274984		_	Pa	ge: <u>1</u>	of
Code:	ASME Sect. 2	KI 98 Ed/00 Add		Cat./Item:	C-A/C1.10	)		Location:		AU	IXILIARY BUILI	DING	
Drawing No.:		M-1209		Descri	otion: LETDOWN	HEAT EXCH	ANGER	SHELL CIRC	UMFERE	NTIAL W	ELD		
System ID:	CVC - LETDOWN HE	AT EXCHANGER	AHLD										
Component ID:	M-1209 / AHNR-W1 /	C1.10	<u>.</u>				Size/	Length: 14	4"/43.96"		Thickness/Dia	meter: 0	.375"/14.0"
Limitations:	No Downstream Sca	in due to Flange Co	onfiguration					Start	Time:	0933	Finish	Time:	0947
	Instrument Setting 04022	-		Search Unit		Cal. Checks	Time	Date		Axia	al Orientated Se	earch Unit	
Serial No.: Manufacturer:			Serial No.: Manufacturer;	013: KRAUT	KRAMER	Initial Cal.	0803	10/16/2009	Calibra Refle		Signal Amplitude %	Sweep Division	Sound Path
Model:	EPO			.25" Shape		Inter. Cal.	0933	10/16/2009	ID No		80%	3.0	.535"
Delay:	4.104 Range:	1.853"	Freq.: 5.0	MHZ Style	COMP-G	Inter. Cal.	0947	10/16/2009	OD N		23%	6.0	1.132"
M'tl Cal/Vel:	0.1236 in/us Pulser:	Square	Exam Angle:	45° # of	Elements: Single	Inter. Cal. Final Cal.	N/A	10/16/2009	2nd ID	Notch	8%	9.0	1.673"
Damping:	400 Ohms Reject:	0%	Mode:	Shea	·····	L	•	· · ·				·····	<u> </u>
Rep. Rate:	Auto Freq.:	5.0 Mhz	Measured An		45°		Coupla					to d Cooreb	
Filter: Voltage:	3.0 - 6.0 Mode: Max Other:	Fullwave N/A	Wedge Style:	ms	swqc	Cal. Batch: Type:		07143 RACE 40			erential Orienta		
Ax. Gain (dB):	28.5 Circ. Ga		_	Search Unit Ca	ble			ECH INC.	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Path
10 Screen D	Div. = <b>1.8</b> in. of	Sound Path	Type:	BNC to MCE	): RG-174	Exam Batcl	h.	07143	1/2 T	SDH	80%	1.3	.215"
Linearity Report	t No.: L	-09-016	Length:	6' No. Con	n.: <b>0</b>			RACE 40					
	Calibration Bloc	k		Scan Coveraç	je	Mfg.:	SONOT	ECH INC.					+
Cal. Block No.:	WPS	S-25	Upstream 🖌	Downstream 🗌	Scan dB: 42.5	Ref	erence	Block		Re	ference/Simula	tor Block	.1
Thickness:	0.375" Dia.:	14.0''	CW 🔽	ccw 🖌	Scan dB: 42.5	Serial No.:		08-4347	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <u>68°</u> Temp. Tool:	267092	Exam Surface	e:	OD	Туре:		MPAS	dB 28.5	FSDH	or Amplitude % 90%	Division 5.6	1.031"
Comp. Temp.:	69° Temp. Tool:	267092	Surface Conc	lition:	Ground	···			20.0	10011			1.001
Recordable Inc	dication(s): Ye	s 🗹 🛛 No 🗌	(If Yes, Ref. Att	ached Ultrasonic	Indication Report.)								
Results:	Accept 🖌 Re	ject 🔲	Info 🗌				C				ID Roll during		
Percent Of Cov	verage Obtained > 90%:	No	Reviewed Pr	evious Data:	Yes			He	ad Circ so	cans limit	ted due to prox		ange Bolting.
Examiner	Level II-PDI	1 1	Signature		Date Review	wer				Signa	ture		Date
Thomas, Trav		have the		1	0/16/2009 WAYN		has	····		- AL			10.17.09
Examiner	Level II-PDI-	· 1.	Signature		Date Site R		ы.		1 11 1	Signa	1 、		Date
Knott, Brian D Other		rean V. X	now			<u>PE,Bu</u> Review	Kes	<i>Th</i>	illip (	. Bul	· · · · · · · · · · · · · · · · · · ·	Javen	9)0 لمر 18 Date
N/A	Level N/A	/	Signature			meswNl	ewem	$\bigcirc$	newcy	Signa		BOCTOBER	
L										$\leq 1$	(``	,,	

				U	IT Ca	libratio	an	ninatio	n						
Domir	nion' <sup>S</sup>	Site/Unit:	KPS	/ 1			Proce	dure:	NE	P-15.16 Rev.	3	_	Outage N	lo.:	K1R30
	Summ	hary No.:	K1	C1.10.005			Procedure	Rev.:		3			Report N	lo.: U	JT-09-031
	Wo	rkscope:		ISI			Work Orde	r No.:	к	W100274984		-	Pa	ge: 2	of 7
Code:	ASN	IE Sect. XI	98 Ed/00 Add		Cat./iter	n:	C-A/C1.10	)	_	Location:		A	JXILIARY BUIL	DING	
Drawing No.:			M-1209			Description:	LETDOWN		ANGER		UMFERE		VELD		
System ID:	CVC - LET	OWN HEA	T EXCHANGER	AHLD						,					
Component ID:	M-1209 / Ał	INR-W1 / C	1.10		-				Size/l	ength: 14	4"/43.96"		Thickness/Dia	ameter:	0.375"/14.0"
Limitations:	No Downst	ream Scan	due to Flange C	onfiguration.						Start	Time:	0948	Finisl	n Time:	1000
	Instrume	nt Settings			Searc	ch Unit	- *	Cal.	Time	Date		Axi	al Orientated S	earch Unit	
Serial No.:		0402292	207	Serial No.:		SC1023		Checks			Calibr		Signal	Sweep	
Manufacturer:		PANAMET	RICS	Manufacturer:	1	KRAUTKRAN	IER	Initial Cal.		10/16/2009	Refle		Amplitude %	Division	Sound Path
Model:		EPOCH		Size:0.2	25''	Shape:	ROUND	Inter. Cal.	0948	10/16/2009	ID No	otch	80%	3.0	.670''
Delay:	5.143	Range:	2.192"	Freq.:5.0	MHZ	Style: C	OMP-G	Inter. Cal.	·	10/16/2009	OD N	otch	23%	6.0	1.316"
	0.1232 in/us	Pulser:	Square	Exam Angle:	60°	_ # of Eleme	nts: Single	Inter. Cal. Final Cal.	N/A	10/16/2009	2nd ID	Notch	14%	9.0	1.978"
Damping:	400 Ohms	Reject:	0%	Mode:		Shear									
Rep. Rate:	Auto	Freq.:	5.0 Mhz	Measured Ang	le:	60°			Couplar						
Filter:	3.0 - 6.0	Mode:	Fullwave	Wedge Style:	<u> </u>	mswqc		Cal. Batch:		07143			erential Orienta		h Unit
Voltage:	Max	Other:	N/A					··		RACE 40	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Pati
Ax. Gain (dB):	43.5	Circ. Gain	(dB): <u>37.0</u> Sound Path			Unit Cable to MCD: RG-′	.74			ECH INC.	1/2 T		80%	1.8	.372"
10 Screen D		in. of		Type:  Length: 6		lo. Conn.:	0	Exam Batc		07143					
Linearity Report	t No.:	L-0	9-016					·		RACE 40					
	Calibra	tion Block				Coverage		Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:		WPS-2	25			eam Scar		Rei	erence l	Block		R	eference/Simul	ator Block	- <u>.</u>
Thickness:	0.375"	Dia.:	14.0"	CW 🔽		CW 🗹 Scar	ndB: <u>57.5</u>	Serial No.:		8-4347	Gain dB	Reflect	Signal or Amplitude %	Sweep Division	Sound Pat
Cal. Blk. Temp.		·	267092	Exam Surface:		OD		Туре:	ROM	IPAS	44.5	FSDH		6.4	1.410"
Comp. Temp.:	<u>69°</u> Tem		267092	Surface Condi		Grour									
Recordable Inc	dication(s):	Yes	No 🗌	(If Yes, Ref. Atta	ached Ultr	rasonic Indicat	ion Report.)								
Results:	Accept 🖌	Rejec	ct 🗌	Info 📋					C				ID Roll during		
Percent Of Cov	verage Obtaine	d > 90%:	No	Reviewed Pre	vious Dat	ta: <u> </u>	′es			i ie		cans am	ited due to pro		lange Domin
Examiner	Level	II-PDI	- 1	Signature	,	C	ate Review	wer				Sign	ature		Date
Thomas, Trav	vis W.	a	havehon			10/16/20	009 WAY	E THOMA	\$			Ħ			1017.09
Examiner	Level		. 1	Signature		C	ate Site R				01.1	Sign	ature		Date
Knott, Brian D	).	(Phl	a. N. K	nott		10/16/2	009 Phil	IPE.BL	Kes		<u> Thill</u>	p.C. Z	Bukes (	9 ctober 1	8,2009
Other	Level	N/A	······································	Signature		C	ate ANII F	Review				Sign	ature		Date
N/A								imesWA	1.04.00		) an	eur	(cemen	1800000	9 days

			UT C	Calibratio	minatio	n						
Domin	nion <sup>*</sup> Site/Unit:	KPS	/ 1	Pi	ocedure:	NE	P-15.16 Rev. 3	3		Outage N	lo.:	K1R30
	- Summary No.:	K1.	C1.10.005	Proced	re Rev.:		3			Report N	lo.: U	T-09-031
	Workscope:		ISI	Work C	rder No.:	к	W100274984		_	Pa	ge: 3	of 7
Code:	ASME Sect. X	98 Ed/00 Add	Cat./	/item: C-A/C*	.10		Location:		AUX		DING	
Drawing No.:		M-1209	<u></u>	Description: LETDOV	N HEAT EXC	HANGER		UMFERE		LD		
System ID:	CVC - LETDOWN HEA	T EXCHANGER	AHLD									
Component ID:	M-1209 / AHNR-W1 / (	\$1.10				Size/l	Length: 14	"/43.96"		Thickness/Dia	ameter: 0	).375"/14.0"
Limitations:	No Downstream Scar	due to Flange Co	onfiguration.				Start	Time:	0921	Finish	n Time:	0932
	Instrument Setting			earch Unit	Cal.	Time	Date		Axial	Orientated S	earch Unit	
Serial No.: Manufacturer:	040229 PANAME		Serial No.:	01TD81 KRAUTKRAMER	- Checks Initial Cal.	0830	10/16/2009	Calibr Refle		Signal mplitude %	Sweep Division	Sound Path
Model:	EPOC		Manufacturer: Size: 0.25''	Shape: ROUND	Inter. Cal.	0921	10/16/2009	1/2 t		80%	2,1	.146"
Delay:	5.050 Range:	.900"	Freq.: 5.0 MHZ	Style: FDEP	Inter. Cal.	0932	10/16/2009	B.\		80%	4.2	.386"
M'tl Cal/Vel: 0	.2320 in/us Pulser:	Square	Exam Angle: 0			N/A						
Damping:	400 Ohms Reject:	0%	Mode: L	LONGITUNDINAL	Final Cal.	1230	10/16/2009					-
Rep. Rate:	Auto Freq.:	5.0	Measured Angle:	N/A	_	Couplar	nt					
Filter:	3.0 - 6.0 Mode:	Fullwave	Wedge Style:	N/A	Cal. Batch	:	07143		Circumfer	ential Orienta	ted Search	u Unit
Voltage:	Max Other:	N/A			Туре:	SONOT	RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	42.9 Circ. Gai	n (dB): N/A	Searc	ch Unit Cable	Mfg.:	SONOTE	ECH INC.	Refle	ector A	Amplitude %	Division	Sound Pau
10 Screen Di	iv. = <u>.9</u> in. of	Sound Path	Type: BNC	To Intergral: RG-174	Exam Bato	h:	07143	<u>N</u>	<u>/A</u>			
Linearity Report	No.: L-(	)9-016	Length: 6'	No. Conn.: 0	Type:	SONOTI	RACE 40					
	Calibration Block		Sca	in Coverage	Mfg.:	SONOTE	ECH INC.					
Cal. Block No.:	WPS	25	Upstream 🖌 Dowr	nstream 🗌 Scan dB: 48	9	ference l				erence/Simula	ator Block	
Thickness:	0.375" Dia.:	14.0"	cw 🗌	CCW Scan dB: N/			вюск )8-4347	Gain	1	Signal	Sweep	Sound Path
Cal. Blk. Temp.:	68° Temp. Tool:	267092	Exam Surface:	OD	<u> </u>		MPAS	dB 42.9	Reflector FSDH	Amplitude %	Division 8.2	.744"
Comp. Temp.:	69° Temp. Tool:	267092	Surface Condition:	Ground				42.5	- roun	24 /0	0.2	./44
Recordable Ind	lication(s): Yes	🗌 No 🖌	(If Yes, Ref. Attached	Ultrasonic Indication Repo	t.)				<u> </u>	1		
Results:	Accept 🖌 Reje	ct	Info			Co	omments: Ma	aintained	80% to 10	0% Backwall o	during exar	mination.
Percent Of Cove	erage Obtained > 90%:	No	Reviewed Previous	Data: N/A	_							
Examiner	Level II-PDI	1 0	Signature	Date Re	viewer				Signati	ure		Date
Thomas, Travi		ranhon	-	ىر 10/16/2009	YNE THON	AS			A	*		10.17.09
Examiner	Level II-PDI	• • •	Signature		Review		~~~~		Signati	ure		Date
Knott, Brian D.	AL.	and K	nott	10/16/2009 PL	II.PE.BU	Kes	Ph	illip	Buke	a Otr	ber 18.	2009
Other	Level N/A		Signature		Il Review				Signati		<u> </u>	Date
					Jameswi							

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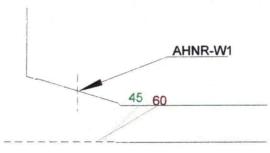
## Ultrasonic Indication Report

						uasu		iuica		vehoi	L	
minion	Site/Unit	:: <b>K</b>	PS	1	1		F	Procedure	e:	NEP-15.1	6 Rev. 3	Outage No.: K1R30
Su	mmary No.	:	K1.	C1.10.0	005		Procee	dure Rev	·.:	3		Report No.: UT-09-031
١	Workscope			ISI			Work (	Order No	.:	KW1002	274984	Page: 4 of 7
arch Unit Ar	nale:	45 / 60	)	0			O Pi	ning Wel	ds			Wo W <sub>max</sub> C <sub>L</sub>
							-			2"T		W1 W2
Lo Loca	<u> </u>	TDC										
Metal F	Path			w	max D	istance l	From Wo	To S.U.	At Maxi	mum Res	sponse	
R Remai	ning Back	Reflection	n	W	1 D	istance l	From Wo	o At	Of	f Max (Fo	orward)	
Distan	ce From Da	atum		W	2 D	istance l	From Wo	o At	01	f Max (Fo	orward)	
nments: (	)° Does no	ot see pro	esence o	of ID Ge	eometry d	ue to w	eld conf	iguratior	n.			
Indication	%	1	N	Fo	orward	Bac	kward	11	L	L2	RBR	Remarks
No.	Of			L	Of Max		T	Of	Max	Of	Amp.	
<u> </u>		<u> </u>		<u> </u>					L	Max	<b></b>	
				<b> </b>			ļ			┢───	<u> </u>	ID Geometry seen 360° Intermittent
1	200%	.85"	.725"	*	+	*		<u> </u>	0"	<u> </u>	N/A	ID Geometry seen 360° Intermittent
											<u> </u>	
				<b> </b>	<u> </u>		<u> </u>	<u> </u>	ļ	<b>_</b>	ļ	
<b> </b>										<b> </b>		
					+		<u> </u>	<u> </u>	<u> </u>	╂	<u> </u>	
r level				Signatu			r	)ate Rev	viewer			Signature
		hank	//	Oignato						HOMAS	•	10.17.0
	II-PDI	7.	2~/	Signatu	ire			Date Site	Review			Signature
	- CH	real.	Ku	Signatu							<u>s</u>	Phillip E. Buken October 18,2009 Signature
LEVEI	N/A			Jynalu			L				em erq	Consult Clemeny 180070858 09
	arch Unit Ar Wo Loca Lo Loca Metal F R Remain Distand nments: ( Indication No. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Site/Unit Summary No. Workscope arch Unit Angle: Wo Location: Lo Location: Metal Path R Remaining Back i Distance From Da nments: 0° Does no Indication % No. Of DAC 1 80% 1 200%	Site/Unit: Ki Summary No.:	Steronic:       KPS         Summary No.:       K1.         Workscope:	Site/Unit:       KPS       /         Summary No.:       K1.C1.10.0         Workscope:       ISI         arch Unit Angle:       45 / 60       •         Wo Location:       Weld Centerline       •         Lo Location:       TDC       •         Metal Path       W       W         Remaining Back Reflection       W         Distance From Datum       W         nments:       0° Does not see presence of ID Ge         Indication       %       W         No.       Of       Max         DAC       W       MP         1       80%       .65"         .529"       *         1       200%       .85"         .725"       *         1       200%       .85"         .725"       *         1       Signatu         r       Level II-PDI         Signatu       Signatu         rian D.       Sum       Signatu	Imminion       Site/Unit:       KPS       /       1         Summary No.:       K1.C1.10.005         Workscope:       ISI         arch Unit Angle:       45 / 60       •         wo Location:       Weld Centerline       •         Lo Location:       TDC       •         Metal Path       Wmax       D         R Remaining Back Reflection       W1       D         Distance From Datum       W2       D         nments:       0° Does not see presence of ID Geometry d         Indication       %       W         No.       Of       Max         OAC       W       MP         1       200%       .85"         1       200%       .85"         1       200%       .85"         1       200%       .85"         1       200%       .85"         1       Signature         r       Level II-PDI         Signature       Signature         rian D.       Signature	Imminion       Site/Unit:       KPS       /       1         Summary No.:       K1.C1.10.005         Workscope:       ISI         arch Unit Angle:       45 / 60       °         Wo Location:       Weld Centerline       °         Lo Location:       TDC       °         Metal Path       Wmax       Distance I         R Remaining Back Reflection       W1       Distance I         Distance From Datum       W2       Distance I         Indication       %       W       Forward         No.       Of       Max       Of Max         DAC       W       MP       W1       MP         I       200%       .85"       .725"       *       *         I       200%       .85"       .725"       *       *         I       200%       .85"       .725"       *       *         I       I       I       I       I       I       I         I       I       I       I       I       I       I       I         I       I       I       I       I       I       I       I         I       I       I	Imminion       Site/Unit:       KPS       /       1       F         Summary No.:       K1.C1.10.005       Proces         Workscope:       ISI       Work (         arch Unit Angle:       45 / 60       •       •       Prices         Wo Location:       Weld Centerline       •       •       Prices         Lo Location:       TDC       •       •       •       •         Metal Path       Wmax       Distance From Wo       O       •       •       •         Remaining Back Reflection       W1       Distance From Wo       Distance From Wo       O       •       •       •         Indication       %       W       Forward       Backward       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •	Iminion       Site/Unit:       KPS       /       1       Procedure         Summary No.:       K1.C1.10.005       Procedure Rev         Workscope:       ISI       Work Order No         work Order or No       Work Order No         arch Unit Angle:       45 / 60       °       Piping Wei         wo Location:       Weld Centerline       O Piping Wei         Lo Location:       TDC       @ Other         Metal Path       Wmax       Distance From Wo To S.U.         R Remaining Back Reflection       W1       Distance From Wo To S.U.         Distance From Datum       W2       Distance From Wo At         Indication       %       W       Forward       Backward       L1         Indication       %       W       Forward       Backward       L1         I       80%       .65"       .529"       •       •       •         1       200%       .85"       .725"       •       •       •       •         1       80%       .65"       .529"       •       •       •       •       •         1       200%       .85"       .725"       •       •       •       •       •       • <td>Iminion       Site/Unit:       KPS       /       1       Procedure:       N         Summary No::       K1.C1.10.005       Procedure Rev.:       &lt;</td> <td>Iminion       Site/Unit:       KPS       /       1       Procedure:       NEP-15.1         Summary No.:       K1.C1.10.005       Procedure Rev.:       3         Workscope:       ISI       Work Order No.:       KW1002         arch Unit Angle:       45 / 60       •       O Piping Welds         workscope:       ISI       Work Order No.:       KW1002         arch Unit Angle:       45 / 60       •       O Piping Welds         Wo Location:       Weld Centerline       O Ferritic Vessels ≥ 2"T       Lo Location:       ISI         Metal Path       Wmax       Distance From Wo To S.U. At Maximum Reverse       Of Max       Of Max (Fc         Distance From Datum       W2       Distance From Wo At       Of Max (Fc         nments:       0° Does not see presence of ID Geometry due to weld configuration.       Max       Or         Indication       %       W       Forward       Backward       L1       L       L2         No.       Of       Max       Of Max       Of       Max       Max       Max         1       80%       .55"       .529"       •       •       •       0"       •         1       20%       .55"       .529"       •<!--</td--><td>Site/Unit:       NEP-15,16 Kev, 3         Summary No.:       K1.C1.10.005       Procedure:       NEP-15,16 Kev, 3         Workscope:       ISI       Procedure:       3         Workscope:       ISI       Work Order No.:       KW100274984         arch Unit Angle:       45 / 60       O       Piping Welds         Work Location:       Meld Centerline       O       Piping Welds         Metal Path       Wmax       Distance From Wo To S.U. At Maximum Response         R Remaining Back Reflection       W1       Distance From Wo At       Of Max (Forward)         Distance From Datum       W2       Distance From Wo At       Of Max (Forward)         Indication       %       W       Forward       Backward       L1       L2       RBR         No.       Of       Max       Of Max       Of Max       Of Max       Max       Max       Max         1       80%       .65"       .529"       ·       ·       ·       ·       ·       N/A       I       Z00%       .85"</td></td>	Iminion       Site/Unit:       KPS       /       1       Procedure:       N         Summary No::       K1.C1.10.005       Procedure Rev.:       <	Iminion       Site/Unit:       KPS       /       1       Procedure:       NEP-15.1         Summary No.:       K1.C1.10.005       Procedure Rev.:       3         Workscope:       ISI       Work Order No.:       KW1002         arch Unit Angle:       45 / 60       •       O Piping Welds         workscope:       ISI       Work Order No.:       KW1002         arch Unit Angle:       45 / 60       •       O Piping Welds         Wo Location:       Weld Centerline       O Ferritic Vessels ≥ 2"T       Lo Location:       ISI         Metal Path       Wmax       Distance From Wo To S.U. At Maximum Reverse       Of Max       Of Max (Fc         Distance From Datum       W2       Distance From Wo At       Of Max (Fc         nments:       0° Does not see presence of ID Geometry due to weld configuration.       Max       Or         Indication       %       W       Forward       Backward       L1       L       L2         No.       Of       Max       Of Max       Of       Max       Max       Max         1       80%       .55"       .529"       •       •       •       0"       •         1       20%       .55"       .529"       • </td <td>Site/Unit:       NEP-15,16 Kev, 3         Summary No.:       K1.C1.10.005       Procedure:       NEP-15,16 Kev, 3         Workscope:       ISI       Procedure:       3         Workscope:       ISI       Work Order No.:       KW100274984         arch Unit Angle:       45 / 60       O       Piping Welds         Work Location:       Meld Centerline       O       Piping Welds         Metal Path       Wmax       Distance From Wo To S.U. At Maximum Response         R Remaining Back Reflection       W1       Distance From Wo At       Of Max (Forward)         Distance From Datum       W2       Distance From Wo At       Of Max (Forward)         Indication       %       W       Forward       Backward       L1       L2       RBR         No.       Of       Max       Of Max       Of Max       Of Max       Max       Max       Max         1       80%       .65"       .529"       ·       ·       ·       ·       ·       N/A       I       Z00%       .85"</td>	Site/Unit:       NEP-15,16 Kev, 3         Summary No.:       K1.C1.10.005       Procedure:       NEP-15,16 Kev, 3         Workscope:       ISI       Procedure:       3         Workscope:       ISI       Work Order No.:       KW100274984         arch Unit Angle:       45 / 60       O       Piping Welds         Work Location:       Meld Centerline       O       Piping Welds         Metal Path       Wmax       Distance From Wo To S.U. At Maximum Response         R Remaining Back Reflection       W1       Distance From Wo At       Of Max (Forward)         Distance From Datum       W2       Distance From Wo At       Of Max (Forward)         Indication       %       W       Forward       Backward       L1       L2       RBR         No.       Of       Max       Of Max       Of Max       Of Max       Max       Max       Max         1       80%       .65"       .529"       ·       ·       ·       ·       ·       N/A       I       Z00%       .85"

		Sup	plem	ental Report	en e		8. 	
Domin	lion				Report No.:	U	T-09-0	31
					Page:	5	of	7
Summary No.:	K1.C1.10.005							
Examiner:	Thomas, Travis W. 🖌	harth Level:	II-PDI	Reviewer: WAYNE THOMAS	All	Date:	second se	Subject Name of Street of Street of Street
Examiner:	Knott, Brian D. Brian	A. Knot Level:	II-PDI	Site Review: PhillipE.BukesPh	lly C Bukes	Date:	<u>ot 18</u>	,200
Other:		Level:		ANII Review: Junes W Nieman	Jone Miemery	Date:	18007	109
				J,	J			

Comments:

Sketch or Photo:



45 DEGREE INDICATION - ID GEOMETRY 360 DEGREE INTERMITTEN' 60 DEGREE INDICATION - ID GEOMETRY 360 DEGREE INTERMITTEN'

	Supplemen	ntal Report			
Dominion			Report No.:	UT	r <b>-09-0</b> 31
			Page:	6	of
mmary No.: K1.C1.10.005			101		
Examiner: Thomas, Travis W.		Reviewer: WAYNE THOM	DII	1990 B	10.17.
Examiner: Knott, Brian D. Sugar D. Other: N/A	and the second	ite Review: <u>PLIIIPE.BuKes</u> NII Review: TamesWNvemen	Deme u Acimen		18 0000
		and the new remery	June Wr Conservery	Duto.	10000
Comments:	6	0 DEGREE COVERAGE			
		AHNR-W1			
		Anniewi			
ketch or Photo:					
	EXAMINE	ED .23 SQ. INCHES			
	4	5 DEGREE COVERAGE			
			11		
	EXAMINE	D .17 SQ. INCHES			
	0 DEG	REE AND CIRC SCAN CO	VERAGE		
	CL				
		××××	1997 - 1997 		
		D .14 SQ. INCHES			

## **Supplemental Report**

Dominion	Report No.:	<u>UT-</u>	09-031
	Page:	7	of _ 7
Summary No.: K1.C1.10.005	-		
Examiner: Thomas, Travis W. hanhon Level: II-PDI Reviewer: WAYNE TUOMAS	<u>A</u>	Date:	D.17.09
Examiner: Knott, Brian D. Sun D. Knott Level: II-PDI Site Review: PLILPE, Bukes PA	hillin C Bukes	Date: <u>Ø</u>	J.18,2009
Other: N/A Level: N/A ANII Review: TamesW Niemero	am a Miemery	Date: 1	80009

Comments:

## **COVERAGE SUMMARY**

Sketch or Photo:

#### WELD # AHNR-W1

THICKNESS = .390"

Total required volume=.72 sq. inches

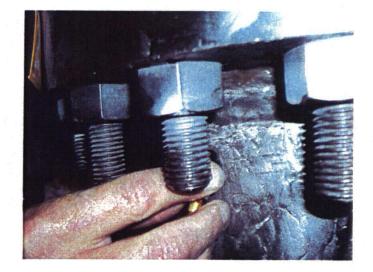
. .

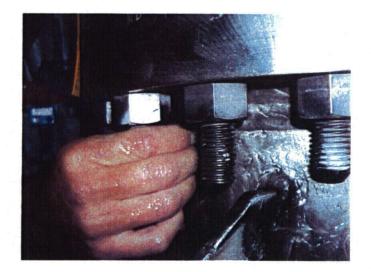
0 DEGREE CIRC SCAN CW CIRC SCAN CCW 45 DEGREE 60 DEGREE	= 19% = 19% = 19% = 23.6% = 32%	(.14 / .72 = .19 x100) (.14 / .72 = .19 x100) (.14 / .72 = .19 x100) (.14 / .72 = .19 x100) (.17 / .72 = .236 x100) (.23 / .72 = .32 x100)
60 DEGREE	<u>= 32%</u>	(.23 / .72 = .32 x100)

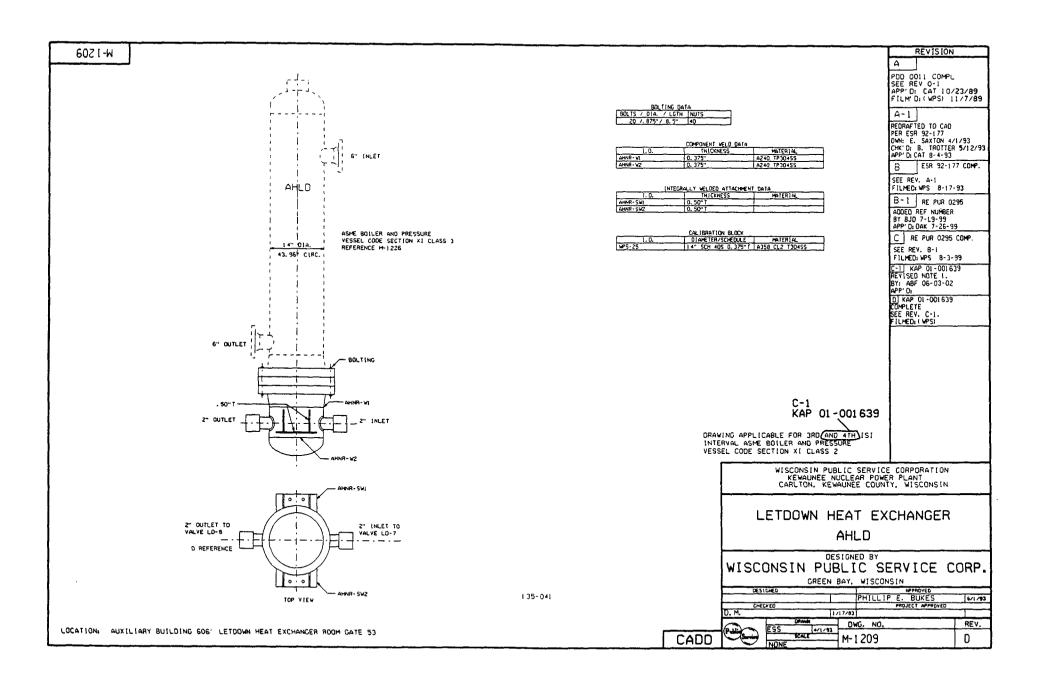
112.6 / 500 = .225 x 100 = 22.5%

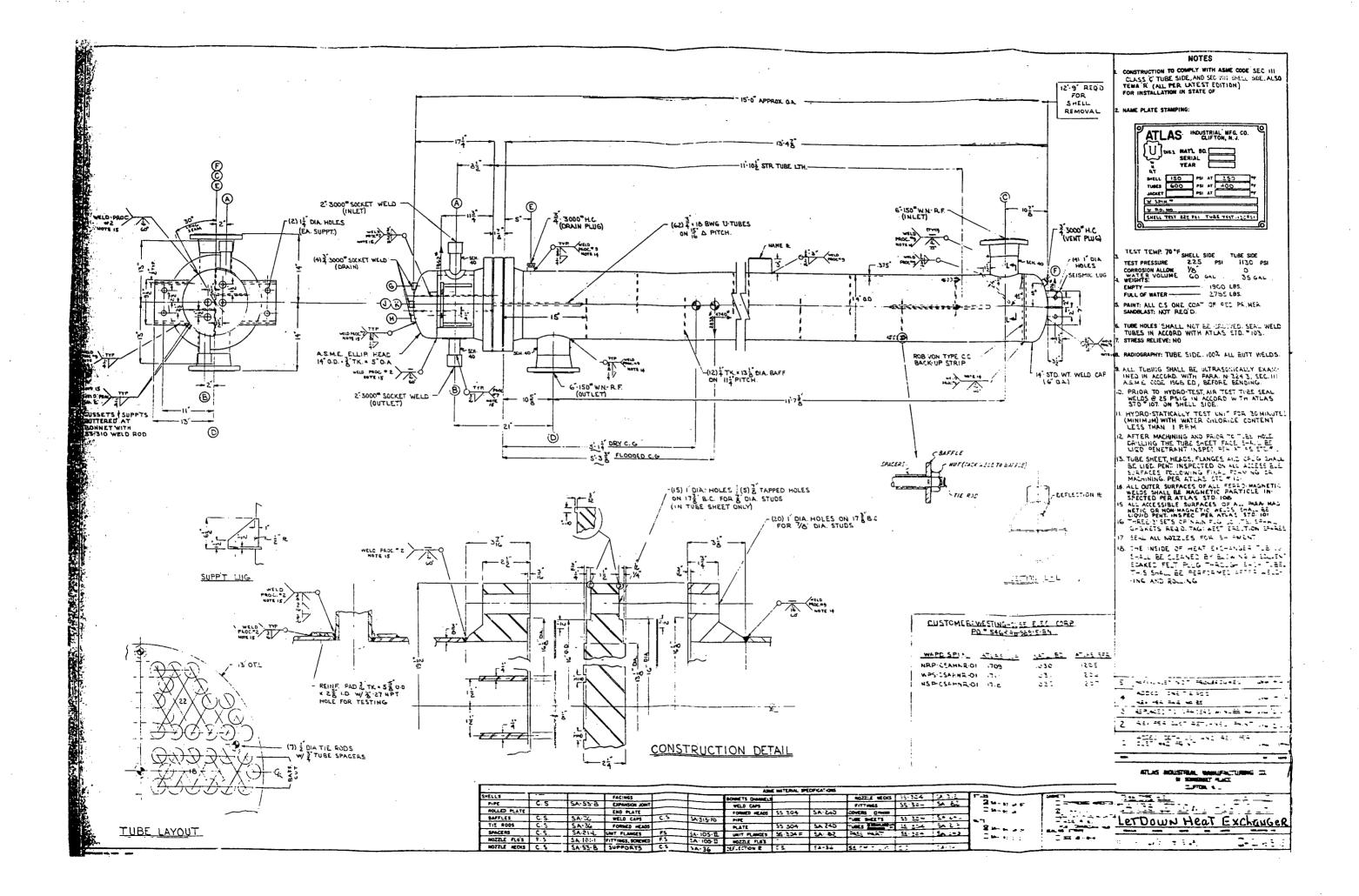
EXAMINED 22.5% OF CODE REQUIRED VOLUME

AHNR-W1 Letdown Heat Exchanger Shell Circumferential Weld









### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-38

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

Seal Water Injection Filter AFSI-1A Head Circumferential Weld AFSI-W2

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

## 3. Applicable Code Requirement:

Table IWC-2500-1; Examination Category C-A; Item No. C1.20

### 4. Impracticality of Compliance:

43.0% of the Seal Water Injection Filter Head Circumferential Weld AFSI-W2 was inaccessible due to configuration of the Seal Water Injection Filter 1A - 3 Welded Supports and the 2" Inlet Nozzle thus restricting Ultrasonic Examination.

## 5. Burden Caused by Compliance:

To provide for access to the 43.0% of the Head Circumferential Weld AFSI-W2 would require modification from the Original Design of the Seal Water Injection Filter 1A.

## 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. However, during the Kewaunee Power Station 2<sup>nd</sup> Ten-Year Interval 1984-1994: 100% Radiography in 1988 and 100% Visual from the I.D. in 1988 were performed on the Seal Water Injection Filter 1A Head Circumferential Weld AFSI-W2. VT-2 Examinations were performed during the first and second periods of the 4th Interval as required by ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda: Table IWC-2500-1 Examination Category C-H;

## FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

### RELIEF REQUEST NO: RR-G-5-38

Item C7.10 for evidence of leakage.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-15

#### 9. References:

- Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7897 through MC7900, MC7904 through MC7906, MC7908 through MC7912, MC7916 through MC7919, MC7960 and MC7967)," dated June 20, 2006. [ADAMS Accession No. ML061420171]
- Technical Letter Report on Third 10-Year Inservice Inspection Interval Request for Relief for Nuclear Management Company, LLC, Kewaunee Nuclear Power Plant, Docket 50-305 (see Section 3.11). [ADAMS Accession No. ML061660437]

					UT C	alibrat	iol	ninatio	n						
Domin	nion <sup>°</sup> S	ite/Unit:	KPS	/ 1			Proce	dure:	NE	P-15.16 Rev. 3	3		Outage N	lo.:	K1R30
	Summ	ary No.:	K1.C	1.20.017		-	Procedure	Rev.:		3		-	Report N	ło.: U	T-09-025
	Wor	kscope:		ISI		-	Work Orde	r No.:	۲	(W100274984		_	Pa	ge: 1	of 9
Code:	ASM	E Sect. XI	98 Ed/00 Add		Cat./I	tem:	C-A/C1.20	· · · · · · · · · · · · · · · · · · ·		Location:		- AUX	XILIARY BUIL	DING	
Drawing No.:	<u>,</u>	÷ <u> </u>	M-1212			Descriptio	n: SEAL WATE	ER INJECTI	- ON FILT	TER 1A HEAD	CIRCUMI	ERENTIA	L WELD		
System ID:	CVC - SEAL	WATER I	NJECTION FILTER	RS AFSI-1A A	 ND AFSI-1	в									
Component ID:	M-1212 / AF	SI-W2 / C1	.20						Size/	Length: 1	0"/34.25"		Thickness/Dia	ameter:	1.0"/10.75"
Limitations:	See Suppler	mental She	et							Start	Time:	1123	Finist	n Time:	1136
	Instrumer	nt Settings			Sea	arch Unit		Cal.				Avial	Orientated S		
Serial No .:		0402292	207	Serial No.:		00MV0	R	Checks	Time	Date	Calibra		Signal	Sweep	1
Manufacturer:		PANAMET	RICS	Manufactu	rer:	KRAUTK	RAMER	Initial Cal.	0920		Refle		Amplitude %	Division	Sound Path
Model:		EPOCH	14	Size:	0.50''	Shape:	ROUND	Inter. Cal.	1123		1/4T	Hole	80%	1.8	.190"
Delay:	1.040	Range:	1.227"	Freq.:2	2.25 MHZ	Style:	CR-RHP	Inter. Cal.	1136	10/13/2009	3/4T	Hole	30%	6.0	.737''
M'tl Cal/Vel: 0	).2311 In/Us	Pulser:	Square	Exam Angl	e: 0°	# of El	ements: Single	Inter. Cal.	N/A		1T Bac	kwall	95%	8.3	1.025"
Damping:	400 Ohms	Reject:	0%	Mode:		Long.		Final Cal.	1318	10/13/2009					
Rep. Rate:	Auto	Freq.:	2.25 Mhz.	Measured	Angle:	C	)°		Coupla	nt					
Filter:	.8 - 3.0	Mode:	Fullwave	_ Wedge Sty	/le:	N/A	· · · · · · · · · · · · · · · · · · ·	Cal. Batch:		07143		Circumfer	rential Orienta	ted Search	Unit
Voltage:	Max	Other:	N/A					Туре:	SONOT	RACE 40	Calibr		Signal	Sweep	Coursel Dath
Ax. Gain (dB):	17.0	Circ. Gain	(dB): N/A		Searc	h Unit Cable	2	Mfg.:	SONOT	ECH INC.	Refle	ctor A	Amplitude %	Division	Sound Path
10 Screen D	)iv. = <u>1.22</u>	in. of	Sound Path	Type:	BN	IC to MCD: I	RG-174	Exam Batci		07143	N/	<u>A</u>			
Linearity Report	: No.:	L-0	9-016	Length:	6'	No. Conn.:	0	Туре:	SONOT	RACE 40					
	Calibrat	ion Block	····	-	Scan	n Coverage		Mfg.:	SONOT	ECH INC.					
Cal. Block No.:		WPS-1	10	Upstream (	Downs	stream 🗹 S	Scan dB: 29.0	Ref	erence	Block		Refe	erence/Simula	ator Block	
Thickness:	1.00"	Dia.:	10.0"		$\checkmark$	ccw 🖌 s	Scan dB: 29.0	Serial No.:		08-4346	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.:	: <u>69°</u> Temp	). Tool:	265136	_ Exam Surf	ace:	0	D	Туре:		MPAS	dB 17.0	Reflector FSDH	Amplitude %	5.8	.723"
Comp. Temp.:	70° Temp	). Tool:	265136	Surface Co	ondition:	FLAT	TOPPED				17.0	13011	100 /6	0.0	.725
Recordable Inc	dication(s):	Yes	No 🗌	(If Yes, Ref.	Attached L	Jltrasonic Ind	ication Report.)								
Results:	Accept 🗹	Rejec	st 📋 🛛 I	nfo 📋 Risk	Informed	Weld			С				Backwall Dur		
Percent Of Cove	erage Obtained	d > 90%:	No	Reviewed	Previous E	Data:	Yes						aminar type ir de per IWC-35		with no
Examiner	Level I	I-PDI	- 0	Signature			Date Review	ver				Signat	ure		Date
Knott, Brian D	). (	to	sia 1/ t	nott		10/1	3/2009 WAY	NE THE	mas			-	Ľ		1017.09
Examiner	Level	NPDI		Signature			Date Site R			~		Signati	ure		Date
Thomas, Travi	is W.	In	anhon	-		10/1	3/2009 Phillif	E. Bu	Kes	- P	hellips	E.B.	ukes 0	tober 1	1,2009
Other	Level N	J/A		Signature			Date ANII F					Signat			Date
N/A							1	- umesWN	Jiem	ery C	)a	marci N	(iemers)	17800	857209
				<u></u>						$\Box$			<u> </u>		

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					UT C	alibratio		ninatio	n						
Domi	nion'	Site/Unit:	KPS	1	1		Proce	dure:	NE	P-15.16 Rev.	3		Outage N	No.:	K1R30
		mary No.:	K1	.C1.20.017			Procedure	Rev.:		3		-	Report N	No.: U	T-09-025
	w	orkscope:		ISI			Work Orde	r No.:	ĸ	W100274984		-	Pa	ige: 2	of 9
Code:	AS	ME Sect. XI	98 Ed/00 Add		Cat./It	em:	C-A/C1.20			Location:		 AUX		DING	
Drawing No.:			M-1212			Description: \$	SEAL WAT		- ON FILT	ER 1A HEAD	CIRCUM	FERENTIA	L WELD		
System ID:	CVC - SEA		NJECTION FILT	ERS AFSI-1A	AND AFSI-1	· -	<u>_</u>							<u></u>	*
Component ID:	• · · ·	FSI-W2 / C				-			Size/	Length: 1	0"/34.25"		Thickness/Di	ameter:	1.0"/10.75"
•					· · · · · ·				01207	Start		1137		h Time:	1152
Limitations:		emental Re										=======================================			1152
	Instrum	ent Settings				rch Unit		Cal.	Time	Date		Axia	Orientated S	earch Unit	
Serial No.:		040229 PANAME		Serial No		01RLMC		Checks Initial Cal.	0926	10/13/2009	Calibr		Signal	Sweep	Sound Path
Manufacturer: Model:		EPOC		Manufac	turer: 0.375"	KRAUTKRAM		Inter. Cal.	1137	10/13/2009	Refle		Amplitude %	Division	
Delay:	5.895	Range:	4.870"	<sup>Size:</sup> Freg.:	2.25 MHZ	Shape: F Style: C		Inter. Cal.	1152	10/13/2009			80% 39%	3.0 6.0	1.484" 2.97"
·	0.1247 In/Us		Square	Exam An				Inter. Cal.	N/A		ID N		19%	9.0	4.454"
Damping:	400 Ohms	 Reject:	0%	Mode:	igic. <u>40</u>	Shear		Final Cal.	1312	10/13/2009					
Rep. Rate:	Auto	Freq.:	2.25 Mhz.	Measure	d Angle:	45°			Coupla	nt				<u></u>	
Filter:	.8-3.0	Mode:	Fullwave	Wedge S	Style:	mswqc		Cal. Batch:		07143		Circumfe	rential Orienta	ated Search	n Unit
Voltage:	Max	Other:	N/A					Туре:	SONOT	RACE 40	Calibr	ation	Signal	Sweep	Cound Dath
Ax. Gain (dB):	8.0	_ Circ. Gai	n (dB): <u>8.0</u>		Search	n Unit Cable		Mfg.:	SONOT	ECH INC.	Refle	ector /	Amplitude %	Division	Sound Path
10 Screen D	Div. = 4.87	in. of	Sound Path	Туре:	BN	C to MCD: RG-1	174	Exam Batc	h:	07143	ID N	otch	80%	3.1	1.550"
Linearity Repor	t No.:	L-(	09-016	Length:	6'	No. Conn.:	0	Туре:	SONOT	RACE 40					
	Calibra	ation Block			Scan	Coverage		Mfg.:	SONOTI	ECH INC.					
Cal. Block No.:		WPS-		Upstream	n 🖌 🛛 Downs	tream 🖌 Scan	dB: <b>13.0</b>	Bof	erence	Blook		 Ref	erence/Simula	ator Block	<u> </u>
Thickness:	1.00"	Dia.:	10.0"	cv	V 🔽	CCW 🗹 Scan	dB: 19.0	Serial No.:		)8-4346	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp	.: 69° Ten	np. Tool:	265136	Exam Su	urface:	OD		Type:		MPAS	dB	Reflector	~ <del></del>		ļ
Comp. Temp.:	70° Ten	np. Tool:	265136	Surface	Condition:	FLAT TOP		туре.	ROI	VIFAS	8.0	FSDH	25%	2.1	1.020"
Recordable In	dication(s):	Yes	🗌 No 🖌	(If Yes, Re	ef. Attached U	Itrasonic Indicati	ion Report.)							1	
Results:	Accept 🔽	Reje	ct	Info 📋 Ris	sk Informed V	Weld			C	omments: Ma Se			Roll During I	Exam.	
Percent Of Cov	verage Obtain	ed > 90%:	No	Reviewe	ed Previous D	ata: Y	es								
Examiner	Level	II-PDI	• •	Signature		Di	ate Review	wer				Signat	yre		Date
Knott, Brian I	D.	Bhi	an V. X	nott		10/13/20	09 JAYN	E THOM	45			- Elle			10.17.09
Examiner	Level	-H-PDI	1. 1	) Signature			ate Site R			0	1	Signat			Date
Thomas, Trav	-		nan hor			10/13/20		PÈ.BL	Kes	P_	hellip			tober	
Other	Level	N/A		Signature		Da	ate ANII F	-	,		$\mathbf{r}$	Signat	•		Date
N/A			·····				la	mesWN	lemer	<u> </u>	-) anu	wra	meny	17 00080	72 09
										נ '	-		$\smile$		

					UT	Calibrat	ioi	ninatio	n						
Domin	lion'	Site/Unit:	KPS	1	1		Proce	dure:	NE	P-15.16 Rev.	3		Outage N	o.:	K1R30
	Su	ummary No.:	к	1.C1.20.017			Procedure	Rev.:		3		-	Report N	o.: U	T-09-025
		Workscope:		ISI	<u>.</u>		Work Orde	r No.:	ĸ	W100274984		-	Pa	ge: 3	of 9
Code:		ASME Sect. 2	XI 98 Ed/00 Add		Cat	t./Item:	C-A/C1.20	)		Location:		 AUX		DING	
Drawing No.:			M-1212		•	Descriptio	on: SEAL WAT	ER INJECTI	— ON FILT	ER 1A HEAD	CIRCUM	FERENTIA	L WELD		
System ID:	CVC - S	EAL WATER	RINJECTION FILT	ERS AFSI-1A	AND AFSI	I-1B	·	· <del>,</del> , ···			•		······································		
Component ID:	M-1212	/ AFSI-W2 / 0	C1.20				······································		Size/	Length: 1	0"/34.25"		Thickness/Dia	meter:	1.0"/10.75"
Limitations:	See Sup	plemental S	iheet							Start	Time:	1153	Finish	Time:	1208
	Instru	ment Setting	gs		S	Search Unit		Cal.				۸vial	Orientated Se	arch Unit	
Serial No.:		04022	9207	Serial No	o.:	01RMT	к	Checks	Time	Date	Calibr		Signal	Sweep	
Manufacturer:		PANAM	ETRICS	Manufac	turer:	KRAUTKI	RAMER	Initial Cal.	0924		Refle		mplitude %	Division	Sound Path
Model:		EPO		Size:	0.375"	Shape:	ROUND	Inter. Cal.	1153	10/13/2009	ID No	otch	80%	3.0	1.897''
Delay:	6.885	Range:	6.21"	Freq.:	2.25 MHZ	· · · · · · · · · · · · · · · ·	COMP-G	Inter. Cal. Inter. Cal.	1208 N/A	10/13/2009	OD N		29%	6.0	3.755"
	.1235 In/l		Square	Exam Ar	ngle: 6		ements: Single	Final Cal.	1	10/13/2009	ID No	otch	18%	9.0	5.658"
Damping: Rep. Rate:	400 Ohm Auto	s Reject: Freq.:	0% 2.25 Mhz.	Mode:		Shear	 0°		Couplai	•				····	
Filter:	.8-3.0	Mode:	Fullwave	Wedge :	ed Angle: Stute:			Cal. Batch:	•	07143		Circumfer	ential Orienta	ted Search	l
Voltage:	Max	Other:		wedge		msw	<u>46</u>			RACE 40	Calibr	······	Signal	Sweep	
Ax. Gain (dB):	22.3	Circ. Ga	ain (dB): N/A		Sea	rch Unit Cable	Ð	· · · · · · · · · · · · · · · · · · ·		ECH INC.	Refle		Amplitude %	Division	Sound Path
10 Screen Di	v. = 6.	21 in. of	Sound Path	Type:	E	BNC to MCD:	RG-174	Exam Batcl		07143	N/	A			
Linearity Report		L	-09-016	Length:	6'	No. Conn.:	0			RACE 40					
	Cali	bration Bloc	k		Sc	an Coverage		Mfg.:	SONOTI	ECH INC.					
Cal. Block No.:		WPS		Upstrear	n 🗹 Dow	vnstream 🖌 🗧	Scan dB: 28.3	Pof	erence	Plack	<u> </u>	L Refe	erence/Simula	tor Block	
Thickness:	1.00"	Dia.:	10.0"	CV	v 🗔	ccw 🗌 🗧	Scan dB: N/A	Serial No.:		D8-4346	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.:	<u>69°</u> T	emp. Tool:	265136	Exam Si	urface:	0	D	Type:		MPAS	dB 22.3	Reflector		1	
Comp. Temp.:	<u>70°</u> T	emp. Tool:	265136	Surface	Condition:	FLAT	TOPPED				22.3	FSDH	42%	2.3	1.415"
Recordable Ind	lication(s	): Ye	s 🔽 🛛 No 📋	(If Yes, Re	ef. Attached	d Ultrasonic Inc	lication Report.)							1	
Results:	Accept	🖌 Re	ject 📋	Info 📋 Ris	sk Informe	d Weld			C				Roll During E	xam.	
Percent Of Cove	erage Obta	ained > 90%:	No	Review	ed Previous	S Data:	Yes			Se	e Attache	d Indicatio	on Report.		
Examiner	Level	II-PDI	2.0	Signature			Date Review	ver				Signati	ure		Date
Knott, Brian D.	(	< R	sen VI.	Kuott	<u> </u>	10/1	3/2009 WAY	NE TH	ionas	5		AL			10-12=09
Examiner	Level		11	Signature			Date Site R				7010	Signati			Date
Thomas, Travi		di la calendaria de la cal	hant			10/1		PEB	uKes	<u> </u>	hillips	<u>C. Bul</u>	The second s	tober 17	2009
Other	Level	N/A		Signature			Date ANII F			/		Signatu	/	·	Date
N/A				···	<u> </u>			ames Wi	Niemi	eng <u> </u>	$\gamma^a$	ines UT	<u>(cemery</u>	170000	057209

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# Ultrasonic Indication Report

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Í	Do Do	minion'	Site/Unit	t: <u>K</u>	PS	/	1		Ρ	rocedure	e: <u>N</u>	NEP-15.1	6 Rev. 3		Outage No.:		K1R30	·	
		Su	mmary No	.:	K1.	C1.20.01	17		Proced	dure Rev	.:	3			Report No.:	U	T-09-02	25	
		\V	Norkscope	»:		ISI			Work (	Order No	.:	KW1002	74984		Page:	4	_ of _	9	
	Sea	rrch Unit Ar Wo Loca Lo Loca		60° eld Cent L of 2.0''		0			⊖ Fe	ping Wel erritic Ves her <b>S</b>							Wo CL	Wmax W1 W2	]
	MP RBR L Corr		Path ning Back ce From D		n	Wn W1 W2	D	istance I	From Wo From Wo From Wo	At	Of	mum Res f Max (Fo f Max (Fo	rward)			7		DATUM Lo 	
	Angle	Indication No.	% Of DAC		Max Max	Foi W1	ward Of Max MP	ł	kward Of Max MP	L1 Of Max	L Max	L2 Of Max	RBR Amp.			Remar	ks		
	60°	1	32%	1.10"	1.526"	1.00"	1.48"	1.20"	1.61"	0.0"	.25"	.4"	N/A	Shell Side				<del>4</del>	
	60°	2	22%	1.15"	1.322"	1.10"	1.30"	1.20"	1.38"	23.4"	23.5"	23.6"	N/A	Shell Side	<u></u> _				
	60°	3	20%	.950"	.721"	*	*	*	*	*	32.0"	*	N/A	*Spot Indi	cation Shell Sid	de			
Ē	xaminer nott, Br xaminer homas,	ian D.	II-PDI II-PDI	rea- Iran	<u></u>	Signatur Signatur	tt		10/13/2 C	Date Rev 009 wA Date Site 009 Ph		THOMAS .Buke	25	Phil	Signa Signat	ture	Octob	,0.17.	Date
	her N/A	Level	N/A			Signatur	e	-	C	Date ANI	II Review	swN ie		$\bigcirc$	Signat any UN		y	170070857207	Date 9

	Supple	mental Repor				
Dominion				Report No.:		9-025
				Page:	5 0	of _
ummary No.: K1.C1.20.017 Examiner: Knott, Brian D. Puta D.	Knott Level: II-PI	DI Reviewer: N	AYNE THOMAS	IL.	Date: 10	. 17 .(
Examiner: Thomas, Travis W. Jun	Level: II-PI		I.P. E. Bukes Phill	C. Bukes	Date: OJ	1,21
Other: N/A	Level: N/A	ANII Review	neswNiemenDami	undameny 1	Date: /7	
Comments:						-
Sketch or Photo:						
			INDICATION #1			
AFS	SI-W2		MAX			
		CL	FOR BACK			
HE	AD			SHELL		
				OTILLE		
	SEE A	TTACHED FLAW E	VALUATION			

				Supplem	ental Report				
Domin	lion					Report No.:	U	JT-09-0	25
						Page:	6	of	9
Summary No.:			Ast al		Deviewen		Diti		~
	Knott, Bria Thomas, Ti		L.Kutt	Level: <u>II-PDI</u> Level: <b>II-PDI</b>	Reviewer: WAYNE Site Review: PLILPE.	01.11		10.17.	
Other:			Non	Level: N/A	ANII Review: James WN			0J17 1700	· ·
Commer	nts:								
			INDICA	TION #1					
			ANGLE	= 60°					
Sketch or Pho	oto:		PART 1	r = 1.059"					
		FORW	ARD	MAX	BACK				
METAL P	ATH	1.48"		1.526"	1.61"				
DEPTH		.740"		.763"	.805"				
.805"74	10"= .065		s = .254	1	INDICATION IS SUBS	SURFACE			
a = .0325			Y = 1.0						
I = .4"									
a/l = .08									
ACTUAL a	a/t = 0.030	x 100 = 3	%	CODE AL	LOWABLE = *10.7%				
Indication	#1 is <u>ACCE</u>	EPTABLE	per Table	IWB 3514-2					

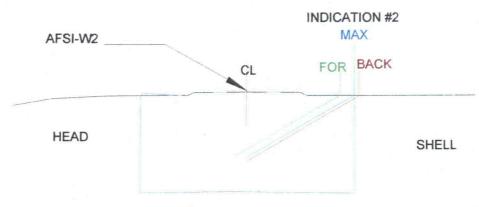
\* Linear interpolation was not used.



		Sup	plem	ental Report					
Domin	tion'					Report No.:	U	T-09-0	25
						Page:	7	of	9
Summary No.:	K1.C1.20.017					N			
Examiner:	Knott, Brian D. Prian .	Knott Level:	II-PDI	Reviewer: WAYNE	THOMAS	the	-Date:	10.17	1.09
Examiner:	Thomas, Travis W. Jam	h Level:	II-PDI	Site Review: Phillip E.	Bukes Phil	lo C. Bukas	Date:	0t.17	2009
Other:	N/A	Level:	N/A	ANII Review: James WN	iemer Jam	undiemen	Date:	170	стоя
		an a			` د	)	n an ainsi		

Comments:

Sketch or Photo:

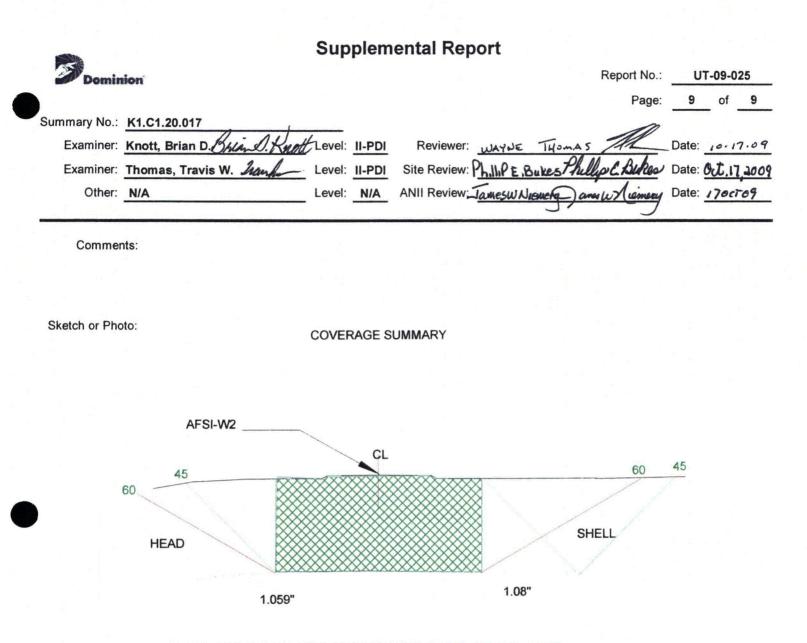


1.059" t

SEE ATTACHED FLAW EVALUATION

			Su	pplem	ental Rep	port				
Domin	lion'							Report No.:	U	T-09-025
								Page:	8	of
Summary No.:				-			_	A		
	Knott, Brian	- ^ ` `	Leve				THOMAS	the ph		10-17.09
		avis W. Janha		I: <u>II-PDI</u>	Site Review: ANII Review:			Upi C. TSulles		0 <u>1,17,30</u> 09 1700709
Other:	<u>N/A</u>		Leve	l: <u>N/A</u>	Ami Review.	_Iameswill	remerce_/au	MILL Ruminy	Date.	1/00/01
Commer	nts:									
		IN	DICATIO	N#2						
		AN	IGLE = 60	D°						
Sketch or Pho	oto:	PA	$\mathbf{RT} t = 1.$	059"						
		FORWARD		MAX		BACK				
METAL F	PATH	1.30"		1.322"		1.38"				
DEPTH		.650"		661"		.690"				
.690" ~ .6	50" = 0.04"	s =	:.369		INDICATIO	N IS <u>SUB</u>	SURFACE			
a = .02		Y:	= 1.0							
1 = .2										
<i>a/</i> 1 = .10										
ACTUAL	<i>a/t</i> = 0.019	x 100 = 1.9%	(	CODE AL	LOWABLE =	: 11%				
Indication	n #1 is <u>ACCE</u>	E <b>PTABLE</b> per T	able IWB	3514-2.				·		





NO EXAMINATION IN AREA OF SUPPORTS (3) FOR A TOTAL 12.75" NO EXAMINATION IN AREA OF INLET NOZZLE FOR A TOTAL OF 2" AREA LIMITED = 14.75" OF A TOTAL OF 34.25" - 14.75 / 34.25 = 0.43 X 100 = 43% EXAMINED 57% OF CODE REQUIRED VOLUME

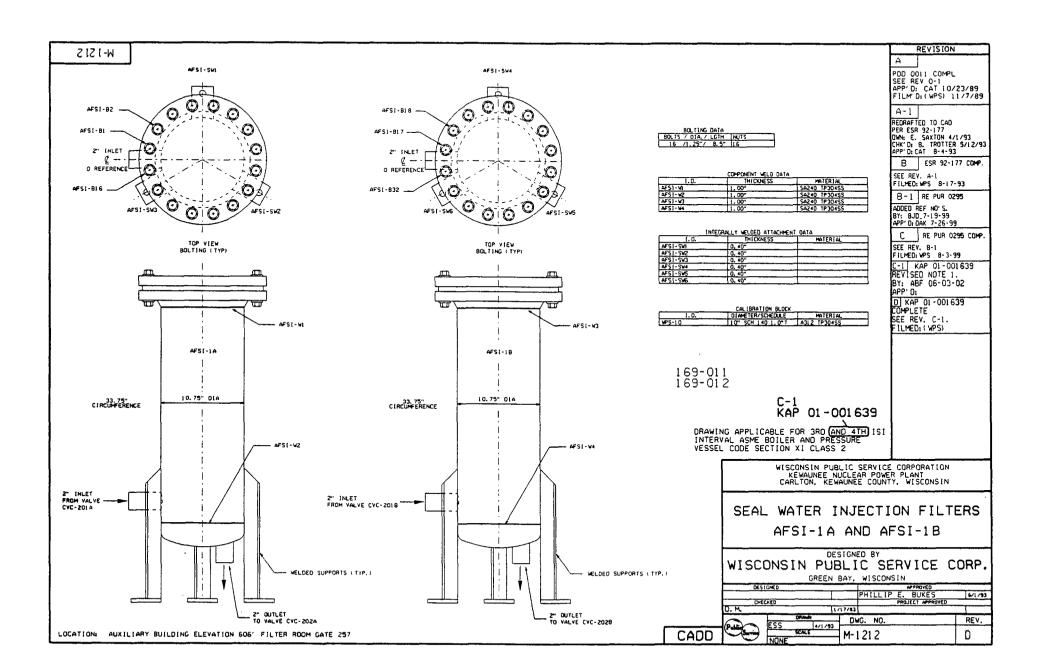


# SEAL WATER INJECTION FILTER 1A

# HEAD CIRCUMFERENTIAL WELD

# AFSI-W2

**AUXILIARY BUILDING 606'** 



.

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-39

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

#### INSERVICE INSPECTION IMPRACTICALITY

#### 1. ASME Code Component Affected:

Pressurizer 14" Nozzle to Safe End Butt Weld RC-W67DM constructed of SA-216, Grade WCC Carbon Steel Casting, clad with austenitic stainless steel, and fitted with a 316L stainless steel safe-end.

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

#### 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-F; Item No. B5.40

#### 4. Impracticality of Compliance:

74.0% of the Pressurizer 14" Nozzle to Safe End Butt Weld RC-W67DM was inaccessible due to the Carbon Steel Nozzle Configuration and the Weld Crown Configuration thus restricting Ultrasonic Examination.

#### 5. Burden Caused by Compliance:

To provide for access to the 74.0% of the Pressurizer 14" Nozzle to Safe End Butt Weld RC-W67DM would require modification of the original design of Pressurizer Nozzle to Safe End.

#### 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda: Table IWB-2500-1; Examination Category B-P; Item B15.20 each Refueling Outage for evidence of leakage. Surface Liquid Penetrant Examination was

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performed on Pressurizer 14" Nozzle to Safe End Butt Weld RC-W67DM during the 4th Interval as required by ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda: Table IWB-2500-1; Examination Category B-F and Item No. B5.40.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Kewaunee Power Station 3rd Ten-Year Interval June 16, 1994 - June 16, 2004 Relief Request RR-G-7-34

#### 9. References:

Letter from L. Raghavan (NRC) to D. A. Christian (DEK), "Kewaunee Power Station – Request for Relief from the Requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code Third Inservice Inspection Interval, Limited Volumetric and Surface Examination Coverage for Inservice Inspection Program Welds (TAC Nos. MC7921 through MC7924, MC7926 through MC7933, MC7935 through MC7941, MC7943 through MC7953, MC7955 through and MC7957 and MC7961 through MC7966), dated May 18, 2006. [ADAMS Accession No. ML061090622]

Domin	ian' S	ite/Unit:	KPS	1	1		Proce	dure:	ER-AA-I	NDE-UT-810 F	Rev. 1		Outage N	0.:	K1R30
ter eduni		ary No.:	K	1.B5.40.001	<u> </u>	-	Procedure	Rev.:		1			Report N	o.: U	T-09-014
		kscope:		ISI			Work Orde	r No.:	ĸ	W100274984		-	Pag	je: 1	of <b>8</b>
Code:	ASM	E Sect. XI	98 Ed/00 Add		Cat./		B-F/B5.40			Location:			CONTAINMEN	T	
Drawing No.:			ISIM-892	···· ·····		Description	14" PRESS	JIZER NOZ	– ZLE TO	SAFE-END W	ELD		<u></u>		
System ID:	RC - PRESS	URIZER SI	URGE LINE	<u> </u>			<u></u>			<u> </u>					<u> </u>
Component ID:	ISIM-892 / R	C-W67DM	/ B5.40						Size/L	_ength: 14	"/43.96"		Thickneşs/Dia	meter: 1	.250''/14.0''
imitations:	See attache	d				•				Start	Time:	1026	Finish	Time:	1046
	Instrumer	nt Settings			Se	earch Unit		Cal.	Time	Date		Axial	Orientated Se	arch Unit	
Serial No.:		0402292	07	Serial N	o.:	00TD6P		Checks			Calibr		Signal	Sweep	
Manufacturer:		PANAMET	RICS	Manufac	cturer:	KRAUTKRA	MER	Initial Cal.		10/10/2009	Refle		mplitude %	Division	Sound Pat
Model:		EPOCH		Size:	0.50"	Shape:	ROUND	Inter. Cal.		10/10/2009	ID No	otch	80%	4.0	1.683"
Delay:	5.595	Range:	4.256"	Freq.:	1.5 MHZ	Style:	COMP-G	Inter, Cal.	1046	10/10/2009					
	.1250 in/us	Pulser:	Square	Exam A	ngle: 45	5° # of Eler	nents: Single	Inter. Cal. Final Cal.	<u>N/A</u>	10/10/2009				<u>.</u>	ļ
	400 Ohms	Reject:	0%	Mode:		Shear		·	·					<u> </u>	
Rep. Rate:	Auto	Freq.:	2.0 Mhz.		ed Angle:	44°			Couplar						<u> </u>
Filter:	0.8-3.0 Max	Mode: Other:	Fullwave N/A	Wedge	Style:	MSWQ	<u> </u>	Cal. Batch:		07143			ential Oriental		
Voltage: Ax. Gain (dB):	8.0	Circ. Gain			Soor	ch Unit Cable				ECH INC.	Calibr Refle		Signal Amplitude %	Sweep Division	Sound Par
10 Screen Di			Sound Path	Type:		NC to MCD: R	3.174				N/				
				Length:		······	0	Exam Batcl		07143 RACE 40					
Linearity Report			9-016			n Coverage				ECH INC.	 				
Cal. Block No.:		ion Block	r	Upstrea		nstream 🔽 Sc	an dB <sup>,</sup> 32						l		_ <u>i</u>
					~ <b>⊘</b>	CCW 🖌 So			erence l	Block	Gain	Ref	erence/Simula Signal	tor Block Sweep	т
	1.250"	Dia.:		Exam S				Serial No.:	L	MT-036	dB	Reflector	Amplitude %		Sound Pa
Cal. Blk. Temp.: Comp. Temp.:			265136		Condition:	Gro		Туре:	RON	MPAS	8.0	FSDH	21%	2.6	1.082"
						Ultrasonic Indic					ļ			ļ	ļ
Recordable Ind	• •	Yes		-	ei. Allacheu		auon Report.)			_	L	l			<u> </u>
Results:	Accept 🔽	Rejec	x 🗌	Info 🔄					Co		k inform amination		laintained 5%	to 20% ID	Roll during
Percent Of Cove	erage Obtained	<b>d &gt; 90%</b> :	No	Review	ed Previous	Data:	Yes	·····							
Examiner	Level I	-PDI	<u> </u>	Signature			Date Review	wer				Signat	ure		Da
Thomas, Travi	s W.	à	ran? the	mac		10/07	12009 WAYN	E THOMA	-5			A			10.12.0
Examiner			· 1.1	Signature			Date Site R	-		$\cap I$		Signat			Da
Knott, Brian D.		M	all &	nott		10/07	2009 Philli	PE. Bu	Kes	the	lip C	Buke	a Octo	ber 13.	2009
							Date ANII F					Signat			

				U	IT Calibrat	ion	ninatio	n						
Domi	nion <sup>i S</sup>	Site/Unit:	KPS	/ 1		Proce	dure:	ER-AA-	NDE-UT-810 F	Rev. 1		Outage N	lo.:	K1R30
		hary No.:	K1	.B5.40.001		Procedure	Rev.:		1		-	Report N	lo.: U	T-09-014
	Wo	rkscope:		ISI		Work Orde	r No.:	к	W100274984		-	Pa	ge: 2	of 8
Code:	ASN	IE Sect. X	(I 98 Ed/00 Add		Cat./Item:	B-F/B5.40			Location:			CONTAINMEN	IT	
Drawing No.:		<u></u>	ISIM-892		Descripti	on: 14" PRESS	JIZER NOZ	– ZLE TO	SAFE-END W	ELD				
System ID:	RC - PRESS	SURIZER	SURGE LINE				<u>`</u>							······································
Component ID:	ISIM-892 / F	C-W67D	VI / B5.40	······································	<u> </u>			Size/	Length: 14	4"/43.96"		Thickness/Dia	imeter: 1	.250"/14.0"
Limitations:	See attache	d							Start	Time:	1047	Finist	n Time:	1102
<u> </u>	Instrume	nt Setting	IS		Search Unit		Cal.	Time	Date		Axia	I Orientated So	earch Unit	
Serial No.:		040229		Serial No.:	21HV-05		Checks Initial Cal.	0758	40/40/2000	Calibra		Signal	Sweep	Sound Path
Manufacturer:		PANAME		Manufacturer:	SIG		Initial Cal.	1047	10/10/2009	Refle		Amplitude %	Division	
Model: Delay:	8.683	EPOC Range:	4.0"		MHZ Style:	Rect. SDA2	Inter, Cal.	1102	10/10/2009	ID NO	тсн	80	4.0	1.595"
	0.2250 in/us	Pulser:	Square	Freq.: <u>2.0</u> Exam Angle:		lements: DUAL	Inter, Cal.	N/A						
Damping:	400 Ohms	Reject:	0%	Mode:	LONGITUND		Final Cal.	1617	10/10/2009					+
Rep. Rate:	Auto	Freq.:	2.0 Mhz.	Measured Ang		2°		Couplai	nt					
Filter:	0.8-3.0	Mode:	Fullwave	Wedge Style:	Integ	ral	Cal. Batch:		07143		Circumfe	rential Orienta	ted Search	I Unit
Voltage:	Мах	Other:	N/A				Туре:	SONOT	RACE 40	Calibra		Signal	Sweep	Sound Path
Ax. Gain (dB):	40.0	Circ. Ga	in (dB):N/A		Search Unit Cabi	e	Mfg.:	SONOT	ECH INC.	Refle	ctor .	Amplitude %	Division	Sound Pain
10 Screen D	Div. = 4.0	in. of	Sound Path	Туре:	(2) BNC To Lem	o: RG-174	Exam Batcl	n:	07143	N//	A			
Linearity Repor	t No.:	L-	-09-016	Length:	6' No. Conn.	0	Туре:	SONOT	RACE 40					
	Calibrat	tion Block			Scan Coverage		Mfg.:	SONOT	ECH INC.					
Cal. Block No.:		WPS		Upstream 🖌	Downstream 🖌	Scan dB: 46	Pof	erence	Block		L Ref	ference/Simula	tor Block	_ <u></u>
Thickness:	1.250"	Dia.:	14	cw 🗌	ccw	Scan dB: N/A	Serial No.:		.MT-036	Gain dB		Signal Amplitude %	Sweep	Sound Path
Cal. Blk. Temp	.: <b>70°</b> Tem	p. Tool:	265136	Exam Surface	:		Туре:	ROI	MPAS	40.0	FSDH	90%	2.3	0.982"
Comp. Temp.:	_75° Tem	p. Tool:	265136	Surface Condi	ition: <u> </u>	round							1	
Recordable In	dication(s):	Yes	s 🗌 🛛 No 🗹	(If Yes, Ref. Atta	ached Ultrasonic In	dication Report.)								
Results:	Accept 🖌	Rej	ect	Info 🔲				С				Maintained 5%	to 20% No	ise level
Percent Of Cov	verage Obtaine	d > 90%:	No	Reviewed Pre	evious Data:	Yes			du	ring Exan	nination.			
Examiner	Level	I-PDI		Signature		Date Review	wer				Signa	ture		Date
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Other	Level	NHA	,	Signature		Date ANII F				<u> </u>	Signa	1		Date
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Domi	<b>nion</b> ' Si	te/Unit:	KPS	1	1		Proce	dure:	ER-AA-	NDE-UT-810 F	Rev. 1		Outage N	o.:	- K1R30
	Summa	ary No.:	K1	.B5.40.001			Procedure	Rev.:		1		-	Report N	o.: U	T-09-014
	Work	(scope:	- <u></u>	ISI			Work Orde	r No.:	ĸ	W100274984		-	Pag	je: 3	of 8
Code:	ASM	E Sect. X	l 98 Ed/00 Add		Cat		B-F/B5.40			Location:		c	ONTAINMEN	<u>т</u>	
Drawing No.:	······································		ISIM-892			Description	14" PRESS	UZER NOZ	– ZLE TO	SAFE-END W	ÆLD				
System ID:	RC - PRESS	URIZER	SURGE LINE												
Component ID:	ISIM-892 / R	C-W67D	VI / B5.40	, <u> </u>	<u></u>	<u> </u>		<u></u>	Size/	Length: 14	4"/43.96"		Thickness/Dia	meter: 1	.250"/14.0"
Limitations:	See Attache	t	<u></u>		·					Start	Time:	1103	Finish	Time:	1116
<del></del>	Instrumen	t Setting	s		S	earch Unit		Cal.	Time	Date		Axial	Orientated Se	arch Unit	
Serial No.:	<u></u>	040229		Serial No	o.:	21HW-0500	11	Checks			Calibr		Signal	Sweep	Sound Path
Manufacturer:	I	PANAME		Manufac		SIGMA		Initial Cal. Inter. Cal.	0802	10/10/2009	Refle	ctor A	nplitude %	Division	
Model:	8.063	EPOC	4.0"	Size:	2(25X15)		Rect.	Inter. Cal.	1116	10/10/2009	ID NO	тсн	80%	4.0	1.973"
Delay: M'tl Cal/Vel: (	0,2250 in/us	Range: _ Pulser:	4.0 Square	Freq.: Exam Ar	2.0 MHZ		SDA2	Inter. Cal.	N/A						
Damping:		Reject:	0%	Exam Ar Mode:	· —		nents: <u>DUAL</u>	Final Cal.	1620	10/10/2009					
Rep. Rate:	Auto	Freq.:	2.0 Mhz.		d Angle:	50			Coupla	nt					
Filter:	0.8-3.0	Mode:	Fullwave		Style:			Cal. Batch:		07143		Circumfere	ential Oriental	ed Search	Unit
Voltage:	Max	Other:	N/A	ĭ	·			Туре:	SONOT	RACE 40	Calibr	ation	Signal	Sweep	
Ax. Gain (dB):	40	Circ. Gai	in (dB): N/A		Sea	rch Unit Cable		Mfg.:	SONOTI	ECH INC.	Refle	ector A	mplitude %	Division	Sound Path
10 Screen D	iv = 4.0	in. of _	Sound Path	Type:	(2)	BNC To Lemo:	RG-174	Exam Batc	 h:	07143	N/	A			
Linearity Report	No.:	L-	09-016	Length:	6'	No. Conn.:	0	Туре:	SONOT	RACE 40				<u></u>	
	Calibrati	on Block	ς		Sc	an Coverage		Mfg.:	SONOTI	ECH INC.					+
Cal. Block No.:		WPS	8-5	Upstrea	m 🔽 🛛 Dow	vnstream 🗹 🛛 So		Ref	erence	Block		Refe	rence/Simula	tor Block	-L
Thickness:	1.250"	Dia.:	14	C\	v 🗌	CCW 🗌 So	an dB: <u>N/A</u>	Serial No ::	L	MT-036	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp.	: <u>70°</u> Temp	Tool:	265136	Exam S	urface: _	OD				MPAS	40	FSDH	50%	2.5	1.997''
Comp. Temp.:	<b>75°</b> Temp	Tool:	265136	Surface	Condition:	Gro	und								
Recordable in	dication(s):	Yes	No 🔽	(If Yes, Re	ef. Attached	I Ultrasonic Indic	ation Report.)								
Results:	Accept 🖌	Rej	ect	Info 🔲					С	omments: Ris			aintained 5%	to 20% No	ise level
Percent Of Cov	erage Obtained	> 90%:	No	Review	ed Previous	Data:	Yes			du	ring Exan	nination.			
Examiner	Level II.	PDI		Signature			Date Review	ver				Signatu	re		Date
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Examiner	Level 11.		- ^ 1	Signature			Date Site R					Signatu		· · ·	Date
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Domi	nion'	Site/Unit:	KPS	/ 1	I		Proce	dure:	ER-AA-	NDE-UT-810	Rev. 1		Outage N	o.: 1	K1R30
		Summary No.:	к	1.B5.40.001			Procedure	Rev.:		1			Report N	o.: U	Г-09-014
		Workscope:		ISI			Work Orde	r No.:	ĸ	(W100274984			Pag	je: 4	of 8
Code:		ASME Sect.	XI 98 Ed/00 Add		Cat./Ite	em:	B-F/B5.40			Location:	<u></u>	~		т	
Drawing No.:			ISIM-892			Description:	14" PRESS	JIZER NOZ	 ZLE TO	SAFE-END W	VELD				<u></u>
System ID:	RC -	PRESSURIZE	R SURGE LINE	·			;			<u> </u>					
Component ID:	ISIM-	892 / RC-W67I	OM / B5.40	<u></u>		·····			Size/	Length: 1	4"/43.96"		Thickness/Dia	meter: 1	.250''/14.0''
Limitations:		ttached	· · · · · · · · · · · · · · · · · · ·				<u>`</u> ` ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Time:	1117	Finish	Time:	1126
		trument Settir	105		Sea	rch Unit			1						
Serial No.:	110		29207	Serial No.:		RTD 08-44	1	Cal. Checks	Time	Date			Orientated Se		
Manufacturer:		PANAN	IETRICS	Manufactu		RTD	· · · · · · · · · · · · · · · · · · ·	Initial Cal.	0805	10/10/2009	Calibra Refle		Signal mplitude %	Sweep Division	Sound Path
Model:		EPC	OCH 4	Size:	2(15x25)	Shape:	Rect.	Inter. Cal.	1117	10/10/2009	ID No	otch	80%	4.0	2.404"
Delay:	10.7	6 Range	: <u>6.0''</u>	Freq.:	2.0 MHZ	Style:	TRLA	Inter. Cal.	1126	10/10/2009					
M'ti Cal/Vel:	0.2255 i	n/us Pulser	Square	Exam Ang	le: <u>60°L</u>	# of Eler	nents: DUAL	Inter. Cal. Final Cal.	N/A	10/10/2009					
Damping:	400 Oł	·	0%	Mode:	LC	NGITUNDIN	AL	L	•	······································					
Rep. Rate:	Aut	<b>p</b> Freq.:	2.0 Mhz.	Measured	Angle:	60°	,		Coupla	nt					
Filter:	0.8-3		Fullwave	Wedge Sty	yle:	Integra	l	Cal. Batch:		07143		Circumfer	ential Orienta	ed Search	Unit
Voltage:	Ma		N/A					· ·		RACE 40	Calibr Refle		Signal	Sweep Division	Sound Path
Ax. Gain (dB):			Sain (dB): N/A Sound Path	·		Unit Cable		Mfg.:	SONOT	ECH INC.	N/				
10 Screen D	Div. =	6.0 in. of	Sound Faun	Type:		C To Lemo:		Exam Batc		07143		<u> </u>			
Linearity Report	t No.:		L-09-016	Length:		No. Conn.:	0			RACE 40					1
	С	alibration Blo	ck			Coverage		Mfg.:	SONOT	ECH INC.		-			
Cal. Block No.:		W	PS-5	Upstream	Downs	tream 🖌 Sc	an dB: <u>60</u>	Ret	ference	Block		Refe	erence/Simula	tor Block	
Thickness:	1.250	Dia.:	14	CW		CCW Sc	an dB: <u>N/A</u>	Serial No.:	L	.MT-036	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp	.: <u>70°</u>	Temp. Tool:	265136	Exam Sur	face:	OD		Туре:	RO	MPAS	31	FSDH	40%	2.5	1.501
Comp. Temp.:	75°	Temp. Tool:	265136	Surface C	ondition:	Gro	und								
Recordable in	dicatio	n(s): Y	es 📄 🛛 No 🗸	(If Yes, Ref.	Attached U	Itrasonic Indic	ation Report.)								
Results:	Acce	ot 🖌 🛛 R	eject	Info 🔄					. C				laintained 5%	to 20% No	ise level
Percent Of Cov	verage C	btained > 90%	: <u>No</u>	Reviewed	Previous D	ata:	Yes			du	iring Exan	nination.			
Examiner	Le	vel II-PDI	1	Signature			Date Review	wer				Signat	¥P.		Date
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Examiner		vel II-PDI	2 - 0	Signature			Date Site R			01	A A	Signati			Date
Knott, Brian I			Kean N.	KINO I (		10/10	2009 Phill	PE.Bu	Kes	The	llp C.	Bukes		ber 13 -	
Other	Le	vel N/A		Signature			Date ANII F				-	Signati		•	Date
N/A		··						Tames W	Nien	rera (	- Jane	eux a	amery 1	30000	ER 09

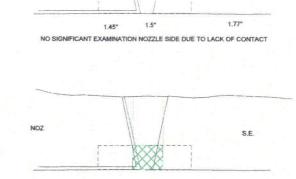
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(				UT Ca	alibration	minati	on						
Domi	nion	Site/Unit:	KPS	/ 1	Pr	ocedure:	ER-AA	-NDE-UT-810	Rev. 1		Outage N	o.:	K1R30
<b>_</b>		Summary No.:		<1.B5.40.001	Proced	ure Rev.:		1	<u> </u>	-	Report N	lo.: U	T-09-014
		Workscope:		ISI	Work O	rder No.:	ł	(W100274984		-	Pa	ge: 5	of 8
Code:		ASME Sect. >	KI 98 Ed/00 Add	Cat./Ite	em: B-F/B	.40		Location:			CONTAINMEN	т	
Drawing No.:			ISIM-892		Description: 14" PRE	SUIZER NO	ZZLE TO	SAFE-END W	/ELD				
System ID:	RC - F	RESSURIZER	SURGE LINE		<u></u>								
Component ID:	ISIM-8	392 / RC-W67D	M / B5.40	<u> </u>	×	<u>_</u>	Size	Length: 1	4"/43.96"		Thickness/Dia	meter: 1	.250"/14.0"
Limitations:	See a	ttached					-	Start	Time:	1127	Finish	Time:	1144
<u> </u>	Inst	rument Setting	us	Sea	rch Unit	Cal.	T <sub></sub>			Avia			
Serial No.:		04022	-	Serial No.:	21HX-05001	Cal. Checks	Time	Date	Calibra		I Orientated So		
Manufacturer:		PANAME	ETRICS	Manufacturer:	SIGMA	Initial Ca	l. <u>0809</u>	10/10/2009	Reflec		Signal Amplitude %	Sweep Division	Sound Path
Model:		EPOC	CH 4	Size: 2925x15)	Shape: Rect.	Inter, Ca		10/10/2009	N/A	4			
Delay:	8.68	Range:	4.30"	Freq.: 1.5 MHZ	Style: SDA1.5	Inter. Ca		10/10/2009					
	0.2255 i	·	Square	Exam Angle: 42°	·····	Final Ca		10/10/2009	·				
Damping:	400 Oh		0%		DNGITUNDINAL							<u> </u>	
Rep. Rate:	Auto	·	2.0 Mhz.	Measured Angle:	43°	-	Coupla		<u> </u>	<u>i</u>			
Filter:	0.8-3. Max		Fullwave N/A	Wedge Style:	Integral	Cal. Batc		07143 RACE 40		r	rential Orienta		
Ax. Gain (dB):	N			 Search	Unit Cable	Type: Mfg.:		ECH INC.	Calibra Reflec		Signal Amplitude %	Sweep Division	Sound Path
10 Screen D		4.3 in. of			C To Lemo: RG-174	Exam Ba		07143	ID No	tch	80%	4.0	1.710"
Linearity Report			-09-016		No. Conn.: 0	Type:		RACE 40	ļ				
	-	alibration Bloc		Scan	Coverage	Mfg.:		ECH INC.					<u> </u>
Cal. Block No.:		WP:		Upstream 🗂 Downs	tream Scan dB: N/	<u> </u>	eference	Plaak		l Ref	erence/Simula	tor Block	4
Thickness:	1.250"			 cw 🗹	CCW 🗹 Scan dB: 3	K Serial No		LMT-036	Gain		Signal	Sweep	Sound Path
Cal. Blk. Temp.	: <b>70°</b>	Temp. Tool:	265136	Exam Surface:	OD	— Type:		MPAS	dB 33	Reflector FSDH	Amplitude %	Division 4.0	0.988"
Comp. Temp.:	75°	Temp. Tool:	265136	Surface Condition:	Ground				33		50%	4.0	0.988
Recordable In	dicatior	n(s): Ye	s 📋 🛛 No 💆	] (If Yes, Ref. Attached U	Itrasonic Indication Repo	t.)							
Results:	Accep	t 🔽 Rej	ject 📋	Info 📋			c				Maintained 5%	to 20% No	ise level
Percent Of Cov	verage O	btained > 90%:	No	Reviewed Previous D	ata: <u>Yes</u>			du	ring Exam	ination.			
Examiner	Le		1 1	Signature		viewer				Signat	ure		Date
Thomas, Trav			hanhom				MAS			-11	<u> </u>		10.12.09
Examiner Knott, Brian I			in not	/ Signature	Date Sit 10/10/2009 PL	e Review งคะเ	Ruto	s Phill	0 .	Signat	1	13200	Date • <b>C</b>
Other	Le	vel N/A	un (, 1)	Signature	1).(	III Review	June	<u>s inul</u>	<u>ya c. 1</u>	Signat		1. 2. 200	Date
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		Sup	plem	ental Repor	t			
Domir	ion					Report No.:	UT-0	9-014
						Page:	6	of <b>8</b>
ummary No.:	K1.B5.40.001							
Examiner:	Thomas, Travis W. Jun the	Level:	II-PDI	Reviewer: w	ANNE THOMAS	gh	Date: 1	0.12.00
Examiner:	Knott, Brian D. Rich D. Ku	off-Level:	II-PDI	Site Review: Ph.			Date: 00	t.13. 200
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		EXAMINED 0.	.36 SQ. IN. OF	A TOTAL 1 SQ. IN. REQUIRED V	OLUME OR 36%			
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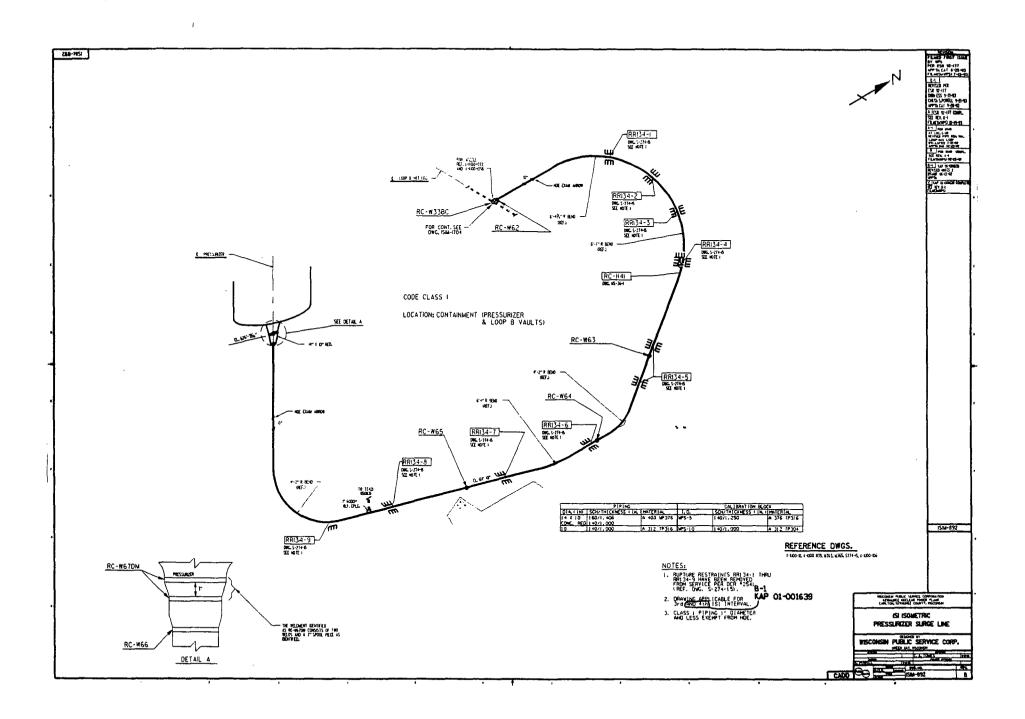


EXAMINED 0.34 SQ. IN. OF A TOTAL 1" SQ. IN. REQUIRED VOLUME OR 34%

S.E.

#### **Supplemental Report** UT-09-014 Report No .: ominion Page: 7 of 8 Summary No.: K1.B5.40.001 Date: 10.12.09 Inwithin Level: II-PDI Examiner: Thomas, Travis W. Reviewer: WAYNE THOMAS O.Kust Level: 11-PDI Examiner: Knott, Brian D.Chu Site Review: Phillip E. Bukes La Churus Date: Oct. 13 2009 Other: N/A ANII Review: James W Niemer my Whenery Date: Level: N/A 30009 **COVERAGE SUMMARY** Comments: Weld Number RC-W67DM Weld Thickness 1.5" Sketch or Photo: 43.96" Weld Length Weld Width 1.0" 36+34+34+0=104/4=26%**Examination Volume Dimensions - Height** 2" 0.5 43.96" Width Length **Coverage Summary** Required Scans (each has a weighing factor of 100 for complete coverage) ANGLE UpSt-Ax UpSt-Circ DnSt-Ax **DnSt-Circ** 40/50/60 36% 0% 42 34% 34% Code Coverage Total 26% \* Best Effort Coverage (Max 25%) Total N/A Notes: 1) Code Coverage refers to the maximum percentage of the required examination volume that is effectively examined with the qualified examination procedure. 2) Best Effort Coverage refers to the required examination volume past the weld centerline that is examined in the axial beam direction with an Appendix VIII demonstrated procedure for single sided coverage.

1 - 2	Level:	II-PDI N/A	Site Review: Phillip E. BukesPh ANII Review: James W. Niemerg Jan	lles C. Buke	8 of 8 Date: <u>/o · / z · o</u> Date: <u>Oct /3 . s</u>
Examiner: Thomas, Travis W. Junh Examiner: Knott, Brian D. Church Knott Other: N/A	Hevel:	II-PDI N/A	Site Review: Phillip E. BukesPh ANII Review: James W. Niemerg Jan	lles C. Buke	Date: Ot 13, 2
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#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-40

#### PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(g)(5)(iii)

### INSERVICE INSPECTION IMPRACTICALITY

#### **1. ASME Code Component Affected:**

12" Safety Injection Circumferential Weld SI-W74

#### 2. Applicable Code Edition and Addenda:

1998 Edition, 2000 Addenda

### 3. Applicable Code Requirement:

Table IWB-2500-1; Examination Category B-J; Item No. B9.11

#### 4. Impracticality of Compliance:

50.0% of the 12" Safety Injection Circumferential Weld SI-W74 was inaccessible due to Valve to Pipe Configuration restricting Ultrasonic Examination.

### 5. Burden Caused by Compliance:

To provide for access to the 50.0% of the 12" Safety Injection Circumferential Weld SI-W74 would require Modification of the original design of the Safety Injection Piping.

### 6. Proposed Alternative and Basis for Use:

No alternative Code required Ultrasonic examination is available due to the limited access. VT-2 Examinations were performed during the 4th Interval as required by ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda: Table IWB-2500-1; Examination Category B-J; Item B9.11 for the first and second periods of the Ten-Year Interval for evidence of leakage. Surface Liquid Penetrant Examination was performed on 12" Safety Injection Circumferential Weld SI-W74 during the 4th Interval as required by ASME Boiler and Pressure Vessel Code, Section XI, 1998 Edition, 2000 Addenda: Table IWB-2500-1; Examination

#### FOURTH 10 - YEAR INTERVAL: JUNE 16, 2004 - JUNE 16, 2014

#### RELIEF REQUEST NO: RR-G-5-40

Category B-J and Item No. B9.11.

#### 7. Duration of Proposed Alternative:

4th Ten-Year Interval June 16, 2004 - June 16, 2014

#### 8. Precedents:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds. Procedure is not qualified for detection or length sizing of circumferentially oriented flaw indications when only single side access is available and the flaw is located on the far side of the weld, however guidance is provided. The techniques identified in this procedure have been demonstrated to be representative of the "best effort" technology for single side detection of far side defects parallel to the weld. PDI-UT-2 is not qualified for length sizing of axially oriented flaws regardless of location.

1

#### 9. References:

Electric Power Research Institute: Performance Demonstration Initiative (PDI) Generic Procedure PDI-UT-2, Revision C, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Welds.

					UTC	alibrati	on	ninatio	n						
Domi	nion' S	ite/Unit:	KPS	<i>ı</i>	1		Proce	dure:	ER-AA-	NDE-UT-802 F	Rev. O		Outage N	lo.:	K1R30
		- ary No.:	K1.E	39.11.114		-	Procedure	Rev.:		0		-	Report N	lo.: U	T-09-017
	Wor	- kscope:		ISI		•	Work Orde	No.:	к	W100274984			Pa	ge: 1	of 6
Code:	ASM	E Sect. X	I 98 Ed/00 Add		Cat./II	em:	B-J/B9.11			Location:			CONTAINMEN	IT	
Drawing No.:	<u> </u>		ISIM-938-1			Description	n: 12" EBLOW	TO VALVE	 WELD						
System ID:	SI- SI FROM		PEN. 10 TO REAC	FOR FROM A	CMTR 1B	TO LOOP B	COLDLEG								
Component ID:	ISIM-938-1 /	SI-W74 /	B9.11			<u></u>	<u></u>		Size/	Length: 1	2''/40.03''		Thickness/Dia	ameter: 1.	312"/12.75"
Limitations:	No down sc	an due to	Valve Configurati	on.						Start	Time:	1215	Finish	n Time:	1245
	Instrumer	nt Setting	s		Sea	arch Unit		Cal.	Time	Date		Axia	Orientated S	earch Unit	
Serial No.:		040229		Serial No.:		00TD6P		Checks			Calibr		Signal	Sweep	Sound Path
Manufacturer:	<u> </u>	PANAME		_ Manufactu		KRAUTKR		Initial Cal. Inter. Cal.	0830	10/10/2009	Refle		Amplitude %	Division	L
Model: Dolour	7.112	EPOC Range:	H 4 3.718"		0.50"	Shape:	ROUND	Inter, Cal.	1245		ID No	otch	80%	5.0	1.849"
Delay: M'ti Cal/Vei:	.1238 in/us	Pulser:	Square	_ Freq.: Exam Ang	1.5 MHZ le: 45°	Style:	COMP-G ments: Single	Inter. Cal.	N/A						<u> </u>
Damping:	400 Ohms	Reject:	0%	_ Lxam Ang Mode:	ie. 40	Shear		Final Cal.	1610	10/10/2009					+
Rep. Rate:	Auto	Freq.:	2.0 Mhz	Measured	Angle:	45	;°		Couplai	nt					1
Filter:	0.8-3.0	Mode:	Fullwave	Wedge St	yle:	mswq	c	Cal. Batch:		07143		Circumfer	rential Orienta	ted Search	Unit
Voltage:	Max	Other:	N/A					Туре:	SONOTI	RACE 40	Calibr		Signal	Sweep	Sound Path
Ax. Gain (dB):	12	Circ. Gai	n (dB): <u>N/A</u>		Searcl	n Unit Cable		Mfg.:	SONOTE	ECH INC.	Refle		Amplitude %	Division	
10 Screen [	Div. = <u>3.7</u>	in. of	Sound Path	Type:	BN	C to MCD: R	G-174	Exam Batch	ו:	07143	N/.	<u>A</u>			+
Linearity Repor	t No.:	<u> </u>	09-016	Length:	6'	No. Conn.:	0	Туре:	SONOT	RACE 40	<u> </u>				+
	Calibrat	ion Block			Scan	Coverage		Mfg.:	SONOTI	ECH INC.	<u> </u>				+
Cal. Block No.:		WPS	5-7	<sup>.</sup> Upstream	Downs	stream 🗌 S	can dB: <u>24</u>	Ref	erence	Block		Ref	erence/Simula	ator Block	
Thickness:	1.312"	Dia.:	12	CW	$\checkmark$	ccw 🗹 s	can dB: <u>36</u>	Serial No.:		MT-036	Gain dB	Reflector	Signal Amplitude %	Sweep Division	Sound Path
Cal. Blk. Temp	.: <u>70°</u> Temp	). Tool:	267092	_ Exam Sur		01		Туре:	RO	MPAS	12	FSDH	20%	2.8	1.041"
Comp. Temp.:		o. Tool:	267092	Surface C	ondition:	Gr	ound							-	
Recordable in	idication(s):	Yes	✓ No □	(If Yes, Ref.	Attached L	Iltrasonic Indi	cation Report.)								
Results:	Accept 🖌	Reje	ect 🗌 🛛 I	nfo 📋					C	omments: Ris			Maintained 5%	to 20% ID	Roll during
Percent Of Cov	verage Obtained	d > 90%:	No	Reviewed	Previous D	Data:	N/A				aminatior	1.			
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Examiner		I-PDI		Signature			Date Site R	~				Signat		1	Date
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		KPS	/ 1	FIG	cedure:	ER-AA-	NDE-UT-802 F	Rev. 0		Outage N	0.:	K1R30
	- Summary No.:	K1.E	39.11.114	- Procedu	re Rev.:		0		-	Report N	o.: U	T-09-017
	Workscope:		ISI	- Work Or	der No.:	к	W100274984		_	Pa	ge: 2	of 6
Code:	ASME Sect. X	98 Ed/00 Add	Cat./It	tem: B-J/B9	11		Location:		c	ONTAINMEN	т	
Drawing No.:	······································	ISIM-938-1		Description: 12" EBLC	W TO VALVI	E WELD	<del>.</del>					
System ID:	SI- SI FROM CNTMT	PEN. 10 TO REAC	FOR FROM ACMTR 18	TO LOOP B COLDLEG								
Component ID:	ISIM-938-1 / SI-W74 /	B9.11			· · · · · · · · · · · · · · · · · · ·	Size/l	ength: 1	2"/40.03"		Thickness/Dia	meter: 1	.312"/12.75
imitations:	No Down scan due to	Valve Configurati	on.				Start	Time:	1155	Finish	Time:	1214
	Instrument Setting	s	Sea	arch Unit	Cal.				Avial	Orientated Se	arch Linit	
Serial No.:	01TT	VB	Serial No.:	RTD 08-438	Checks	Time	Date	Calibr				
Manufacturer:	KRAUTK	RAMER	Manufacturer:	RTD	Initial Cal.		10/10/2009	Refle		Signal mplitude %	Sweep Division	Sound Pat
Nodel:	USN 60	SW	Size: 2(8x14)	Shape: RECTANGUL		1155	10/10/2009	ID No	otch	80%	6.0	2.631"
Delay:	9.0372 Range:	4.384"	Freq.: 2.0 MHZ	Style: TRLA	Inter. Cal.	1214	10/10/2009					
vi'ti Cal/Vel: <u>0.</u>	.2320 in/us Pulser:	Square	Exam Angle: 60L	# of Elements: DUA		N/A	40/10/0000					
Damping: 5	500 Ohms Reject:	0%	Mode:LC	ONGITUNDINAL	Final Cal.	1608	10/10/2009					
Rep. Rate: _	Auto High Freq.:	2.0 Mhz	Measured Angle:	59°	· ·	Couplar	nt					
=ilter:	N/A Mode:	Fuliwave	Wedge Style:	Integral	Cal. Batch	:	07143		Circumfere	ential Orienta	ted Search	n Unit
Voltage:	450 Other:	PW: 250NS	_		Туре:	SONOT	RACE 40	Calibr		Signal	Sweep	Sound Pat
Ax. Gain (dB):	60 Circ. Gai	n (dB): <u>N/A</u>	Search	h Unit Cable	Mfg.:	SONOTE	CH INC.	Refle	ector A	mplitude %	Division	Sound Fat
10 Screen Div	iv. = <u>5.2</u> in. of	Sound Path	Type: (2) BN	IC To Lemo: RG-174	_ Exam Bate	ch:	07143	N/	A			
_inearity Report I	No.: L-	09-014	Length: 6	No. Conn.: 0	_ Type:	SONOTE	RACE 40	<b> </b>				
	Calibration Block		— Scan	Coverage	Mfg.:	SONOTE	CH INC.					
Cal. Block No.:	WPS		Upstream 🔽 Downs	stream Scan dB: 60					l	rence/Simula	tor Black	1
-	1.312" Dia.:	12		CCW Scan dB: N//		eference l		Gain		Signal	Sweep	
	70° Temp. Tool:	267092	Exam Surface:	 OD	- Serial No.:		MT-036	dB	Reflector	Amplitude %		Sound Pat
•	75° Temp. Tool:	267092	Surface Condition:	Ground	_ Туре:	RON	IPAS	45.0	FSDH	80%	3.3	1.452"
Recordable Indi			<b>_</b> ·	Itrasonic Indication Repor	)					<u>}</u>		
Results:	Accept 🖌 Reje		nfo 📋			Co	omments: Ris	k Inform	ed Weld. M	aintained 5%	to 20% no	ise level
Percent Of Cove	erage Obtained > 90%:	No	Reviewed Previous D	Data: N/A			du	ring exan	nination.			
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Other	Level N/A		Signature		I Review				Signatu	ire cermeny	<u> </u>	Dat

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# Ultrasonic Indication Report

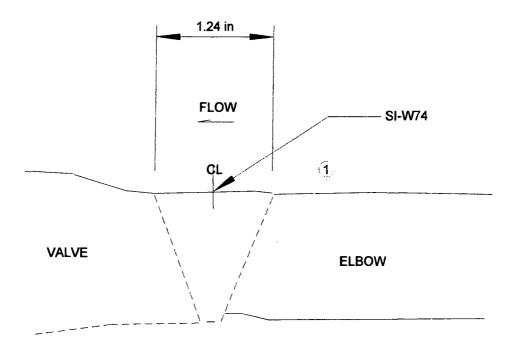
Thomas, Travis W.Junch10/10/2009WAYNE THOMASJunchExaminerLevel II-PDISignatureDateSite ReviewSignatureDateKnott, Brian D.Knott, Brian D.Knott10/10/2009Ph.II.P É. BuKesPhullip C. BukesOctober 13,2009	Doi Doi	minion	Site/Uni	t: <b>K</b>	PS	1	1		Р	rocedure	ER-A	A-NDE-U	T-802 R	ev. 0 Ot	utage No.:	K1R	30	
Search Unit Angle:       45       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •		Su	mmary No	.:	K1.	.B9.11.1	14		Proced	dure Rev.	:	0		R	eport No.:	UT-09	-017	
Search Unit Angle:       45       •               Piping Welds           Wo Location:       Weld CL       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •		,	Workscope	ə:		ISI			Work C	Order No.	:	KW100	274984		Page:	3 of	6	-
MP       Metal Path       Wmax       Distance From Wo To S.U. At Maximum Response         RBR       Remaining Back Reflection       W1       Distance From Wo At       Of Max (Forward)         L       Distance From Datum       W2       Distance From Wo At       Of Max (Forward)         Comments:       Indication       %       W       Forward       Backward       L1       L       L2       RBR       Remarks         Angle       No.       Of       Max       Of Max       Of Max       Of Max       Of Max       Of Amp.       Remarks         45°       1       100       1.15°       1.87°       •       •       •       38.0°       •       N/A       Root Geometry Observed 360° Intermittent.         L       L       L       L       L       L       N/A       Root Geometry Observed 360° Intermittent.         L       L       L       L       L       L       Reviewer       Signature       Date       Intermittent.         L       L       L       L       L       L       L       N/A       Root Geometry Observed 360° Intermittent.         L       L       L       L       L       L       L       L       L       L	Sea					0			_	-		2"T						
RBR       Remaining Back Reflection       W1       Distance From Wo At       Of Max (Forward)         Distance From Datum       W2       Distance From Wo At       Of Max (Forward)       Distance From Vo At       Of Max (Forward)         Comments:       Image       Indication       %       W       Forward       Backward       L1       L2       RBR       Remarks         Angle       No.       Of       Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max       Of Max <t< td=""><td></td><td>Lo Loca</td><td>ation:</td><td>TDC</td><td></td><td></td><td></td><td></td><td>⊖ Ot</td><td>her _</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Ì</td><td></td></t<>		Lo Loca	ation:	TDC					⊖ Ot	her _							Ì	
RBR       Remaining Back Reflection       W1       Distance From Wo At       Of Max (Forward)         L       Distance From Datum       W2       Distance From Wo At       Of Max (Forward)         Comments:       Image	MP	Metal	Path			Wr	max D	istance	From Wo	To S.U.	At Maxir	mum Res	sponse					
L       Distance From Datum       W2       Distance From Wo At       Of Max       M	RBR	Remai	ning Back	Reflectio	n	W	ם ו	istance l	From Wo	At	Of	Max (Fo	orward)					
Indication       %       W       Forward       Backward       L1       La       L2       RBR       Remarks         45°       1       100       1.15°       1.87°       •       •       •       36.0°       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15°       1.87°       •       •       •       36.0°       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15°       1.87°       •       •       •       36.0°       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15°       1.87°       •       •       •       36.0°       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15°       1.87°       •       •       •       36.0°       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15°       1.87°       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •<			ce From D	atum		W2	2 D	istance	From Wo	o At	0 <del>1</del>	Max (Fo	orward)		11.5			
Angle       No.       Of       Max       Of Max       Of Max       Of Max       Amp.         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       NA       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       NA       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       NA       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       NA       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       •       • <td></td> <td>V</td> <td></td> <td>WI Wina</td> <td>x W2</td>															V		WI Wina	x W2
DAC       W       MP       W1       MP       W2       MP       Max       Max         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       36.0"       •       N/A       Root Geometry Observed 360° Intermittent.         45°       1       100       1.15"       1.87"       •       •       •       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100 </td <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>Fo</td> <td></td> <td>1</td> <td></td> <td>L1</td> <td>ł</td> <td>L2</td> <td></td> <td></td> <td>R</td> <td>emarks</td> <td></td> <td></td>			1			Fo		1		L1	ł	L2			R	emarks		
45°       1       100       1.15"       1.87"       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       <	Angle	No.	1			W1					Max		Amp.					
Thomas, Travis W.Junch10/10/2009WAYNE THOMASJP-/2-09ExaminerLevel II-PDISignatureDateSite ReviewSignatureDateKnott, Brian D.Signature10/10/2009Ph.II.IP É. BuKesPh.Up C. BukesOther 13,2009OtherLevel N/ASignatureDateANII ReviewSignatureDate	45°	1	1				*				36.0"	+	N/A	Root Geomet	ry Observed 3	360° Intern	mittent.	
Thomas, Travis W.       Junch       10/10/2009       WAYNE THOMAS       Junch																· · · · · ·		
Thomas, Travis W.       Junch       10/10/2009       WAYNE THOMAS       Junch			 	<u> </u>		<u> </u>	ļ	<b> </b>	ļ	ļ		ļ	ļ					
Thomas, Travis W.       Junch       10/10/2009       WAYNE THOMAS       Junch			<b> </b>						ļ	<u> </u>		<u> </u>	<b> </b>					
Thomas, Travis W.       Junch       10/10/2009       WAYNE THOMAS       Junch							┼───	<b> </b>									<u></u>	
Thomas, Travis W.       Junch       10/10/2009       WAYNE THOMAS       Junch									+				<u> </u>					<u>.                                    </u>
Thomas, Travis W.Junch10/10/2009WAYNE THOMASJunchExaminerLevel II-PDISignatureDateSite ReviewSignatureDateKnott, Brian D.SignatureDateN/A10/10/2009Ph.II.P É. BuKesPh.II.P É. BuKesPh.II.P É. BuKesOther 13,2009OtherLevel N/ASignatureDateANII ReviewSignatureDate								<u> </u>					<u> </u>		<u>_</u>			
Thomas, Travis W.Junch10/10/2009WAYNE THOMASJunchExaminerLevel II-PDISignatureDateSite ReviewSignatureDateKnott, Brian D.SignatureDateN/A10/10/2009Ph.II.P É. BuKesPh.II.P É. BuKesPh.II.P É. BuKesOther 13,2009OtherLevel N/ASignatureDateANII ReviewSignatureDate							1								<u> </u>			
Thomas, Travis W.Junch10/10/2009WAYNE THOMASJP-/2-09ExaminerLevel II-PDISignatureDateSite ReviewSignatureDateKnott, Brian D.Signature10/10/2009Ph.II.IP É. BuKesPh.Up C. BukesOther 13,2009OtherLevel N/ASignatureDateANII ReviewSignatureDate	Examiner	l eve				Signatu	re			)ate Rev	iewer				Signatu	re		Date
Examiner       Level       II-PDI       Signature       Date       Signature       Date         Knott, Brian D.       Signature       No. II       Differ       Differ       Date       Signature       Date       Signature       Date       Signature       Date         Other       Level N/A       N/A       Signature       Date       ANII Review       Signature       Date				man	h	orginata						THOMA	5		AL.		,	
Other Level N/A Signature Date ANII Review Signature Date	Examiner	Leve		2 ·	07					Date Site	Review			Phillips	Signatu Rukes		,	Date
	Other		N/A	<u>p</u> oron_				<u> </u>		Date ANI	l Review	,			Signatu	ге		Date

Supplemental Report
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Domi	nion"	· · · · ·		R	eport No.:	U	T-09-0	17
					Page:	4	of	6
Summary No.:	K1.B9.11.114				M		_	
	Thomas, Travis W. has Level: II-P					- Date:	10.1	2.09
Examiner:	Knott, Brian Do Sian D. Kust Level: 11-P	Site Review:	PhillPEBu	Kes Philloc	Bukes	Date:	<u>ot 13</u>	32009
Other:			James W Na	enero anul	u Mamery	Date:	130	стоя
		_			5			

Comments:

Sketch or Photo:



INDICATION 1 45 DEG. ROOT GEOMETRY 360 DEG. INTERMITTENT

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Dominion				Ket	oort No.:	UT-09-	-017
Summary No.: K1.B9.	.11.114				Page: _	<b>5</b> of	6
Examiner: Thoma	as, Travis W. Jaan	Level: II-PDI	Reviewer: WAYNE	THOMAS 7	AL Di	ate: 🗾	.12.0
Examiner: Knott,	Brian D. Rian O.	Knott Level: II-PDI	Site Review: Phillipe	Bukes Phillip C.	Bukes Di	ate O.L.	3,200
Other: N/A			ANII Review: Lames W	<u> </u>		ate: <u>/3</u> 6	
Comments:							
Sketch or Photo:		1.24 in					
	1 1.38"	1.24 11	3				
	2 1.37"	FLOW		_ SI-W74			
	3 1.29"						
	4 1.33" 5 1.34"						
	0 1.04	CL	60	45			
			P				
	VALVE	$\land$					
				ELBOW			
		>//////XXXX					
		///////////////////////////////////////	××××××××				
		(Î) (Î) (Î)	(4) (5)				
	ł.						
			INED .54 SQ. IN.UP	STREAM SIDE			
	$\mathbb{X}^{\infty}$						
		ATTAT DEAT	EFEORT EVANA AD	EA 42 50 IN			
			EFFORT EXAM AR	En .42 JU. IN.			
		///////					
	and the second s	NO EXAM .12	2 SQ. IN DOWNSTRE	AM			
	VII.						
		TOAL REQUIRED EX					

## **Supplemental Report**

Domin	lion <sup>:</sup>					Report No.:	U	UT-09-0	017
						Page:	6	_ of	6
Summary No.:	K1.B9.11.114					-01			
Examiner:	Thomas, Travis W.	hand Level:	I-PDI		WAYNE THOMAS			10.1	12.09
Examiner:	Knott, Brian D. Ruin	D.Knott Level:	II-PDI	Site Review:	LILLP E. Bukes 7	Phillips C. Bukes	Date:	0J.1	3,2009
Other:	N/A	Level:	N/A	ANII Review:	James WNienerg	June Kiemen	Date:	1300	TOA
						·			
Commer	nts:	COVER	RAGE	SUMMARY	,				

	Weld Number	SI-W74	
Sketch or Photo:	Weld Thickness	1.37"	
Skelon of Filolo.	Weld Length	40.03"	
	Weld Width	1.24"	

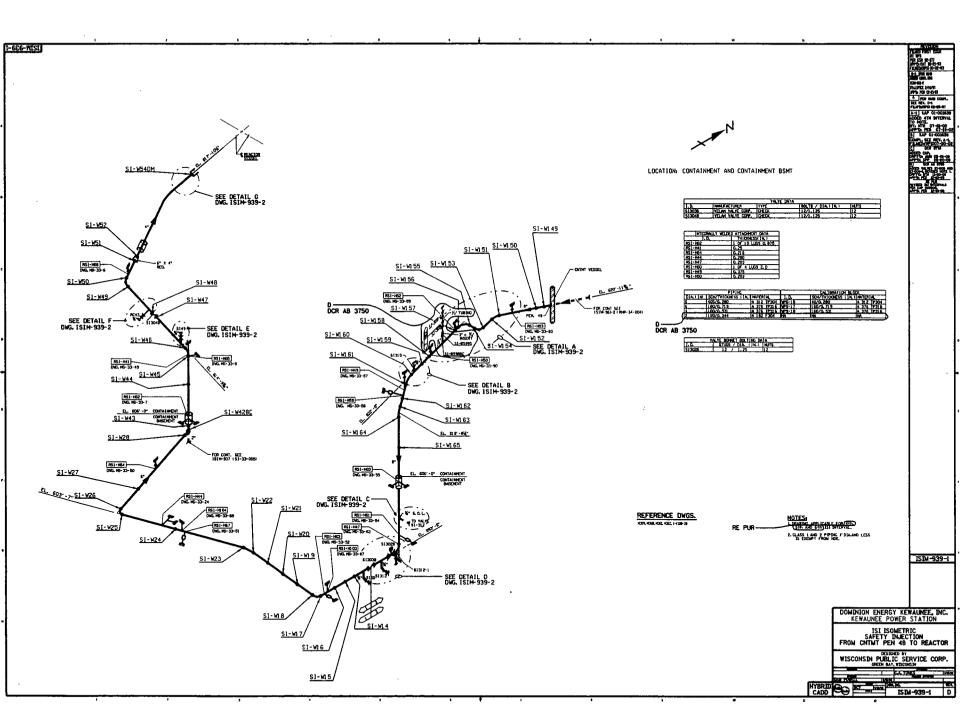
100 + 100 + 0 + 78 = 278 /4 = 69.5%

Examinati	on Volume Dimensio	ns - Height	.46" Length	40.03"	Width	2.24"			
	· · · · · · · · · · · · · · · · · · ·	Co	verage Summary			· · · · · · · ·			
	Required Sca	Required Scans (each has a weighing factor of 100 for complete coverage)							
ANGLE	UpSt-Ax								
45									
60			*78%	, D	0%				
					· · · · · · · · · · · · · · · · · · ·				
	[		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Code Covera	age Total	50%			
			* Best Effort Cove	rage (Max 2	5%) Total	19.5%			
Notes:									
	1) Code Coverage volume that is eff					n			
	<ul> <li>volume that is effectively examined with the qualified examination procedure.</li> <li>Best Effort Coverage refers to the required examination volume past the weld centerline that is examined in the axial beam direction with an Appendix VIII demonstrated procedure for single sided coverage.</li> </ul>								

\*Downstream Axial Best Effort coverage = .42 sq. in./ .54 sq. in.total = 78%

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